

105. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9a. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485a(e). [40 CFR 60.482-4a(b)] Federally Enforceable Through Title V Permit
106. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4a(c)] Federally Enforceable Through Title V Permit
107. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4a(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9a. [40 CFR 60.482-4a(d)] Federally Enforceable Through Title V Permit
108. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1), (2), (3), and (4). [40 CFR 60.482-5a(a), (b), and (c)] Federally Enforceable Through Title V Permit
109. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1a(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6a(a) and (c)] Federally Enforceable Through Title V Permit
110. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6a(b)] [District Rule] Federally Enforceable Through Title V Permit
111. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)] Federally Enforceable Through Title V Permit
112. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)] Federally Enforceable Through Title V Permit
113. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c) and (f). A leak is detected if an instrument reading of 500 ppm or greater is measured. [40 CFR 60.482-7a(a) and (b)] Federally Enforceable Through Title V Permit
114. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7a(e)] Federally Enforceable Through Title V Permit
115. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)] Federally Enforceable Through Title V Permit

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116. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f)] Federally Enforceable Through Title V Permit
117. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7a(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7a(g)] Federally Enforceable Through Title V Permit
118. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through §60.14 or §60.15 and was constructed on or before January 5, 1981; or has less than 3.0 percent of its total number of valves designated as difficult-to-monitor by the owner or operator. 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7a(h)] Federally Enforceable Through Title V Permit
119. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a as an alternative to the requirements in 40 CFR 60.482-7a. [40 CFR 60.592a(b)] Federally Enforceable Through Title V Permit
120. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8a(a) and (b), 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit
121. When a leak is detected in pumps and valves in heavy liquid service, and pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7a(e). [40 CFR 60.482-8a(c) and (d), 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit
122. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10a(b)] Federally Enforceable Through Title V Permit
123. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10a(c)] Federally Enforceable Through Title V Permit
124. Flares used to comply with Subpart GGGa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)] Federally Enforceable Through Title V Permit
125. Owners or operators of control devices used to comply with the provisions of Subpart GGGa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)] Federally Enforceable Through Title V Permit

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126. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system used to comply with the provisions of Subpart GGGa shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10a(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10a(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10a(f) and (g)] Federally Enforceable Through Title V Permit
127. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10a(h)] Federally Enforceable Through Title V Permit
128. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2). [40 CFR 60.482-10a(i)] Federally Enforceable Through Title V Permit
129. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)] Federally Enforceable Through Title V Permit
130. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)] Federally Enforceable Through Title V Permit
131. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10a(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10a(l)] Federally Enforceable Through Title V Permit
132. Closed vent systems and control devices used to comply with provisions of Subpart GGGa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)] Federally Enforceable Through Title V Permit
133. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(a)] Federally Enforceable Through Title V Permit
134. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-1a, 60.483a, and 60.484a as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of no more than 2,000 ppm greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring. A calibration drift assessment shall be performed, at a minimum, at the end of each Method 21 monitoring day, per 60.485a(b)(2). [40 CFR 60.485a(b)] Federally Enforceable Through Title V Permit

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135. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485a(c)] Federally Enforceable Through Title V Permit
136. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service; i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485a(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485a(d)] Federally Enforceable Through Title V Permit
137. The owner or operator shall demonstrate that equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 degrees C (1.2 in. H₂O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)] Federally Enforceable Through Title V Permit
138. Samples used in conjunction with 40 CFR 60.485a(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485a(f)] Federally Enforceable Through Title V Permit
139. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485a(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485a(g)] Federally Enforceable Through Title V Permit
140. An owner or operator of more than one affected facility subject to the provisions Subpart GGGa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)] Federally Enforceable Through Title V Permit
141. The owner or operator shall record the following information for each monitoring event required by §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification; (ii) Operator identification; (iii) Equipment identification; (iv) Date of monitoring; (v) Instrument reading. [40 CFR 60.486a(a)(3)] Federally Enforceable Through Title V Permit
142. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7a(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486a(b)] Federally Enforceable Through Title V Permit

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143. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number (except when indications of liquids dripping from a pump are designated as a leak); 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) The maximum instrument reading measured by the methods specified in 40 CFR 60.485a(a) at the time the leak is successfully repaired or determined to be nonrepairable (except when a pump is repaired by eliminating indications of liquids dripping); 5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2520] Federally Enforceable Through Title V Permit
144. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10a(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)] Federally Enforceable Through Title V Permit
145. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f) shall be signed by the owner or operator, or other mechanism as established with the permitting authority; 3) A list of equipment identification numbers for pressure relief devices required to comply with 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, and 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with §60.482-1a(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr; 7) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 8) Method 21 monitoring instrument calibration records including (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value per section 10.1 of Method 21; (v) Results of each calibration drift assessment required by §60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 9) The connector monitoring schedule for each process unit as specified in §60.482-11a(b)(3)(v); and 10) Records of each release from a pressure relief device subject to §60.482-4a. [40 CFR 60.486a(e)] Federally Enforceable Through Title V Permit

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146. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connectors stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486a(f)] Federally Enforceable Through Title V Permit
147. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)] Federally Enforceable Through Title V Permit
148. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)] Federally Enforceable Through Title V Permit
149. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480a(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486a(i)] Federally Enforceable Through Title V Permit
150. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486a(j)] Federally Enforceable Through Title V Permit
151. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart GGGa. [40 CFR 60.486a(k)] Federally Enforceable Through Title V Permit
152. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in §60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in §60.482-11a(d), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)] Federally Enforceable Through Title V Permit
153. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)] Federally Enforceable Through Title V Permit
154. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGGa except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487a(e)] Federally Enforceable Through Title V Permit
155. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)] Federally Enforceable Through Title V Permit

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156. Compressors are exempt from the standards of Subpart GGGa if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment to demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593a(b)] Federally Enforceable Through Title V Permit
157. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3a (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3a(a), (b), (c), (d), (e), and (h). [40 CFR 60.593a(c)] Federally Enforceable Through Title V Permit
158. An owner or operator may use the following provision in addition to 40 CFR 60.485a(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 93, 95, or 96. [40 CFR 60.593a(d)] Federally Enforceable Through Title V Permit
159. Connectors in gas/vapor or light liquid service are exempt from the requirements in 40 CFR 60.482-11a, provided the owner or operator complies with 40 CFR 60.482-8a for all connectors, not just those in heavy liquid service. [40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit
160. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)] Federally Enforceable Through Title V Permit
161. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart GGGa. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
162. Fuel gas sulfur content shall not exceed 5 gr S/100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
163. Permittee shall determine sulfur content of combusted gas annually. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit
164. Pursuant to Rule 4320, the operator shall pay an annual emission fee to the District for NOx emissions from combustion unit(s) for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
165. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit
166. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070 and 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
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PERMIT NO: S-33-56-30

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 28 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

MODIFICATION OF HYDROCRACKER UNIT #21 INCLUDING 9 HEATERS, CATALYTIC ASSEMBLY, HYDROGEN COMPRESSOR/RECYCLE COMPRESSORS 21-C11A/B AND 21-C12A/B, HYDROGEN BOOSTER COMPRESSOR 21-C15, MAKE-UP HYDROGEN BOOSTER COMPRESSORS 21-C17 AND 21-C18, AND MISC AIR COOLERS, TOWERS, TANKS, EXCHANGERS, DRUMS, AND PUMPS - AREA 2: ADDITION OF REACTOR AND ASSOCIATED EQUIPMENT, INCLUDING RECYCLE COMPRESSOR AND HYDROGEN MAKE UP COMPRESSOR; NEW PUMP; MODIFY RERUN COLUMN (21-V14); PIPING MODIFICATIONS; TRANSFER HEATER 26-H17 FROM PERMIT S-33-52, INSTALL INDUSTRIAL COMBUSTION AHE-3000, MODEL LNDG 300-6 LOW NOX BURNERS (OR DISTRICT APPROVED EQUIVALENT) ON 26-H17, AND RENAME HEATER 26-H17 TO 21-H21 FOR A TOTAL OF 10 HEATERS

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. Approval of the equivalent equipment shall be made only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the specifically authorized equipment. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

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Arnaud Marjolle, Director of Permit Services
S-33-56-30 : Sep 17 2014 4:40PM - RINALDIR : Joint Inspection Required with RINALDIR

4. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emission rates, equipment drawing(s), and operational characteristics/parameters. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No emission factor and no emission shall be greater for the alternate equipment than for the proposed equipment. No changes in the hours of operation, operating rate, throughput, or firing rate may be authorized for any alternate equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
8. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit
9. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
11. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
12. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
13. Fugitive volatile organic compound (VOC) emissions shall not exceed 136.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Hydrocracker unit shall include two 40.0 MMBtu/hr charge heaters (21H11 and 21H12), two 18.1 MMBtu/hr heaters (21H13 and 21H14), two 11.4 MMBtu/hr heaters (21H15 and 21H16), one 27.8 MMBtu/hr heater (21H17), one 34.6 MMBtu/hr heater (21H18), one 65.0 MMBtu/hr heater (21H20), one 30 MMBtu/hr heater (21H21), catalytic assembly, miscellaneous air coolers, heat exchangers, drums, pumps, piping, and vessels. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Firing rate of heater 21H20 shall not exceed 65.0 MMBtu/hr. [District Rule 2201 and 4306] Federally Enforceable Through Title V Permit
18. Continuous records of heater 21H20's firing rate, including volumetric fuel consumption rate (corrected for temperature) and hhv of fuel burned shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Except during startup and shutdown, heater 21H18 emission rates shall not exceed the following: NO_x (as NO₂) 0.036 lb/MMBtu or 30 ppmvd @ 3% O₂, CO: 0.075 lb/MMBtu or 400 ppmv @ 3% O₂, VOC: 0.005 lb/MMBtu, and PM₁₀: 0.014 lb/MMBtu. [District NSR Rule, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

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20. Except during startup and shutdown, heater 21H20 emission rates shall not exceed NO_x (as NO₂): 0.036 lb/MMBtu or 30 ppmv @ 3% O₂, and CO: 400 ppmv @ 3% O₂. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
21. Except during startup and shutdown, heater 21H11 emission rates shall not exceed NO_x (as NO₂) 30 ppmv @ 3% O₂, CO: 100 ppmv @ 3% O₂, VOC: 0.003 lb/MMBtu, and PM₁₀: 0.014 lb/MMBtu. [District NSR Rule, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
22. Except during startup and shutdown, heater 21H12 emission rates shall not exceed any of the following: NO_x (as NO₂): 30 ppmv @ 3% O₂, CO: 100 ppmv @ 3% O₂, VOC: 0.003 lb/MMBtu, PM₁₀: 0.014 lb/MMBtu. [District NSR Rule, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
23. Except during startup and shutdown, heaters 21H13 through 21H17 emission rates shall not exceed: NO_x (as NO₂): 0.036 lb/MMBtu or 30 ppmv @ 3% O₂, CO: 400 ppmv @ 3% O₂, VOC: 0.0055 lb/MMBtu, PM₁₀: 0.0076 lb/MMBtu. [District NSR Rule, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
24. Except during startup and shutdown, heater 21H21 emission rates shall not exceed any of the following: NO_x (as NO₂): 24 ppmv @ 3% O₂, CO: 200 ppmv @ 3% O₂, VOC: 0.0054 lb/MMBtu, PM₁₀: 0.0075 lb/MMBtu. [District Rules 2201, 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit
25. Emission rates from heater 21H11 shall not exceed any of the following: PM₁₀: 13.4 lb/day, SO_x (as SO₂): 27.5 lb/day, VOC: 2.9 lb/day, NO_x (as NO₂): 34.6 lb/day, or CO: 72.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit
26. Emission rates from heater 21H12 shall not exceed any of the following: PM₁₀: 13.4 lb/day, SO_x (as SO₂): 27.5 lb/day, VOC: 2.9 lb/day, NO_x (as NO₂): 34.6 lb/day, or CO: 72.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit
27. Emission rates from heater 21H13 shall not exceed any of the following: PM₁₀: 3.3 lb/day, SO_x (as SO₂): 12.4 lb/day, VOC: 2.4 lb/day, NO_x (as NO₂): 36.9 lb/day or 5,694 lb/year, or CO: 130.3 lb/day or 10,655 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
28. Emission rates from heater 21H14 shall not exceed any of the following: PM₁₀: 3.3 lb/day, SO_x (as SO₂): 12.4 lb/day, VOC: 2.4 lb/day, NO_x (as NO₂): 36.9 lb/day or 5,694 lb/year, or CO: 130.3 lb/day or 10,655 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
29. Emission rates from heater 21H15 shall not exceed any of the following: PM₁₀: 2.1 lb/day, SO_x (as SO₂): 7.8 lb/day, VOC: 1.5 lb/day, NO_x (as NO₂): 23.3 lb/day or 3,577 lb/year, or CO: 82.1 lb/day or 6,711 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
30. Emission rates from heater 21H16 shall not exceed any of the following: PM₁₀: 2.1 lb/day, SO_x (as SO₂): 7.8 lb/day, VOC: 1.5 lb/day, NO_x (as NO₂): 23.3 lb/day or 3,577 lb/year, or CO: 82.1 lb/day or 6,711 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
31. Emission rates from heater 21H17 shall not exceed any of the following: PM₁₀: 5.1 lb/day, SO_x (as SO₂): 19.1 lb/day, VOC: 3.3 lb/day, NO_x (as NO₂): 56.7 lb/day or 8,760 lb/year, or CO: 200.2 lb/day or 16,365 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
32. Emission rates from heater 21H18 shall not exceed any of the following: PM₁₀: 6.3 lb/day, SO_x (as SO₂): 23.7 lb/day, VOC: 4.2 lb/day, NO_x (as NO₂): 70.6 lb/day, or CO: 62.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
33. Emission rates from heater 21H21 shall not exceed any of the following: PM₁₀: 5.4 lb/day, SO_x (as SO₂): 8.6 lb/day, VOC: 3.9 lb/day, NO_x (as NO₂): 21.0 lb/day, or CO: 106.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
34. For heater 21H11 through 21H18, 21H20, and 21H21 duration of start-up and shutdown shall not exceed 2 hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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35. Permittee shall maintain records of duration of each start-up and shutdown for a period of five years and make such records readily available for District inspection upon request. [District Rules 2080, 4305, and 4306] Federally Enforceable Through Title V Permit
36. For heaters 21H13, 21H14, 21H15, 21H16, 21H17, 21H18, 21H20, and 21H21, compliance with annual CO emission rate shall be determined by using CO emission concentrations obtained during monthly monitoring as required in this permit, fuel use, fuel heating value, and stack gas flow rate. Records of calculated CO emissions shall be maintained for a period of five years and made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
37. For each heater, permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
38. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
39. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
40. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
41. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306 (amended October 16, 2008). [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
42. Source testing to measure natural gas-combustion NOx and CO emissions from each heater shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
43. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
44. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

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45. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
46. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, 4351] Federally Enforceable Through Title V Permit
47. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
48. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
49. Permittee shall meet all applicable NSPS requirements, including Subparts A, J and GGGa. [NSPS 40 CFR Part 60, Subparts A & J] Federally Enforceable Through Title V Permit
50. Permittee shall maintain records of hhv of fuel burned and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
51. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
52. Valves and connectors subject to Rule 4455 installed for production of low sulfur diesel shall not leak in excess of 100 ppmv above background when measured one (1) cm from the source. [District Rule 2201] Federally Enforceable Through Title V Permit
53. Pump and compressor seals subject to Rule 4455 that were installed for production of low sulfur diesel shall not leak in excess of 500 ppmv above background when measured one (1) cm from the source. [District Rule 2201] Federally Enforceable Through Title V Permit
54. Sulfur content (as H₂S) of fuel supplied to all heaters shall not exceed 0.1 gr/dscf (162 ppmv) based on a three hour rolling average and shall be continuously monitored and recorded. [NSPS 40 CFR Part 60, Subparts A & J] Federally Enforceable Through Title V Permit
55. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
56. {588} Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
57. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
58. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6C or ARB Method 100. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit
59. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using EPA Method 11 or EPA Method 15, ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

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60. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2.1; 4306, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
61. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO₂. [District Rules 4301, 5.2.2] Federally Enforceable Through Title V Permit
62. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rules 2201 & 4455] Federally Enforceable Through Title V Permit
63. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455] Federally Enforceable Through Title V Permit
64. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit
65. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit
66. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit
67. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit
68. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit
69. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455] Federally Enforceable Through Title V Permit

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70. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit
71. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455] Federally Enforceable Through Title V Permit
72. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455] Federally Enforceable Through Title V Permit
73. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit
74. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit
75. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455] Federally Enforceable Through Title V Permit
76. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit
77. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455]
78. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit
79. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit
80. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455] Federally Enforceable Through Title V Permit

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81. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455] Federally Enforceable Through Title V Permit
82. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455] Federally Enforceable Through Title V Permit
83. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455] Federally Enforceable Through Title V Permit
84. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455] Federally Enforceable Through Title V Permit
85. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455] Federally Enforceable Through Title V Permit
86. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455] Federally Enforceable Through Title V Permit
87. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455] Federally Enforceable Through Title V Permit

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88. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455] Federally Enforceable Through Title V Permit
89. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455] Federally Enforceable Through Title V Permit
90. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455] Federally Enforceable Through Title V Permit
91. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455] Federally Enforceable Through Title V Permit
92. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455] Federally Enforceable Through Title V Permit
93. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455] Federally Enforceable Through Title V Permit
94. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455] Federally Enforceable Through Title V Permit
95. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455] Federally Enforceable Through Title V Permit
96. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455] Federally Enforceable Through Title V Permit
97. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455] Federally Enforceable Through Title V Permit

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98. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4455] Federally Enforceable Through Title V Permit
99. Permittee shall meet all applicable requirements of NSPS Subparts A, J, and GGGa. [District Rule 4001] Federally Enforceable Through Title V Permit
100. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGGa. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484a. [40 CFR 60.592a(c)] Federally Enforceable Through Title V Permit
101. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and (f) and 40 CFR 60.482-2a(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 2,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2a(a) and (b)] Federally Enforceable Through Title V Permit
102. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)] Federally Enforceable Through Title V Permit
103. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)] Federally Enforceable Through Title V Permit
104. Any PLLS that is designated, as described in 40 CFR 60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e)] Federally Enforceable Through Title V Permit
105. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)] Federally Enforceable Through Title V Permit
106. Any pump in PLLS that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(d)(4) through (6) if: 1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2a(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)] Federally Enforceable Through Title V Permit
107. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482a-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)] Federally Enforceable Through Title V Permit
108. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(b)] Federally Enforceable Through Title V Permit

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109. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9a. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(b)] Federally Enforceable Through Title V Permit
110. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4a(c)] Federally Enforceable Through Title V Permit
111. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4a(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9a. [40 CFR 60.482-4a(d)] Federally Enforceable Through Title V Permit
112. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1), (2), (3), and (4). [40 CFR 60.482-5a(a), (b), and (c)] Federally Enforceable Through Title V Permit
113. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1a(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6a(a) and (c)] Federally Enforceable Through Title V Permit
114. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6a(b)] Federally Enforceable Through Title V Permit
115. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)] Federally Enforceable Through Title V Permit
116. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)] Federally Enforceable Through Title V Permit
117. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c) and (f). A leak is detected if an instrument reading of 500 ppm or greater is measured. [40 CFR 60.482-7a(a) and (b)] Federally Enforceable Through Title V Permit
118. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7a(c)] Federally Enforceable Through Title V Permit
119. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)] Federally Enforceable Through Title V Permit

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120. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f)] Federally Enforceable Through Title V Permit
121. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7a(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7a(g)] Federally Enforceable Through Title V Permit
122. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through §60.14 or §60.15 and was constructed on or before January 5, 1981; or has less than 3.0 percent of its total number of valves designated as difficult-to-monitor by the owner or operator. 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7a(h)] Federally Enforceable Through Title V Permit
123. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a as an alternative to the requirements in 40 CFR 60.482-7a. [40 CFR 60.592a(b)] Federally Enforceable Through Title V Permit
124. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8a(a) and (b), 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit
125. When a leak is detected in pumps and valves in heavy liquid service, and pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7a(e). [40 CFR 60.482-8a(c) and (d), 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit
126. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10a(b)] Federally Enforceable Through Title V Permit
127. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10a(c)] Federally Enforceable Through Title V Permit
128. Flares used to comply with Subpart GGGa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)] Federally Enforceable Through Title V Permit
129. Owners or operators of control devices used to comply with the provisions of Subpart GGGa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)] Federally Enforceable Through Title V Permit

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130. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system used to comply with the provisions of Subpart GGGa shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10a(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10a(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10a(f) and (g)] Federally Enforceable Through Title V Permit
131. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10a(h)] Federally Enforceable Through Title V Permit
132. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2). [40 CFR 60.482-10a(i)] Federally Enforceable Through Title V Permit
133. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)] Federally Enforceable Through Title V Permit
134. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)] Federally Enforceable Through Title V Permit
135. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10a(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10a(l)] Federally Enforceable Through Title V Permit
136. Closed vent systems and control devices used to comply with provisions of Subpart GGGa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)] Federally Enforceable Through Title V Permit
137. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(a)] Federally Enforceable Through Title V Permit
138. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of no more than 2,000 ppm greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring. A calibration drift assessment shall be performed, at a minimum, at the end of each Method 21 monitoring day, per 60.485a(b)(2). [40 CFR 60.485a(b)] Federally Enforceable Through Title V Permit

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139. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485a(c)] Federally Enforceable Through Title V Permit
140. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485a(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485a(d)] Federally Enforceable Through Title V Permit
141. The owner or operator shall demonstrate that equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 degrees C (1.2 in. H₂O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)] Federally Enforceable Through Title V Permit
142. Samples used in conjunction with 40 CFR 60.485a(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485a(f)] Federally Enforceable Through Title V Permit
143. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485a(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485a(g)] Federally Enforceable Through Title V Permit
144. An owner or operator of more than one affected facility subject to the provisions Subpart GGGa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)] Federally Enforceable Through Title V Permit
145. The owner or operator shall record the following information for each monitoring event required by §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification; (ii) Operator identification; (iii) Equipment identification; (iv) Date of monitoring; (v) Instrument reading. [40 CFR 60.486a(a)(3)] Federally Enforceable Through Title V Permit
146. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7a(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486a(b)] Federally Enforceable Through Title V Permit

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147. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number (except when indications of liquids dripping from a pump are designated as a leak); 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) The maximum instrument reading measured by the methods specified in 40 CFR 60.485a(a) at the time the leak is successfully repaired or determined to be nonrepairable (except when a pump is repaired by eliminating indications of liquids dripping); 5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2520] Federally Enforceable Through Title V Permit
148. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10a(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)] Federally Enforceable Through Title V Permit
149. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGGa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f) shall be signed by the owner or operator, or other mechanism as established with the permitting authority; 3) A list of equipment identification numbers for pressure relief devices required to comply with 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, and 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with §60.482-1a(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr; 7) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 8) Method 21 monitoring instrument calibration records including (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value per section 10.1 of Method 21; (v) Results of each calibration drift assessment required by §60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 9) The connector monitoring schedule for each process unit as specified in §60.482-11a(b)(3)(v); and 10) Records of each release from a pressure relief device subject to §60.482-4a. [40 CFR 60.486a(e)] Federally Enforceable Through Title V Permit

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150. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connectors stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486a(f)] Federally Enforceable Through Title V Permit
151. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)] Federally Enforceable Through Title V Permit
152. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)] Federally Enforceable Through Title V Permit
153. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480a(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486a(i)] Federally Enforceable Through Title V Permit
154. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486a(j)] Federally Enforceable Through Title V Permit
155. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart GGGa. [40 CFR 60.486a(k)] Federally Enforceable Through Title V Permit
156. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 1) Process unit identification; 2) For each month during the semiannual reporting period, (i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in §60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in §60.482-11a(d), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)] Federally Enforceable Through Title V Permit
157. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)] Federally Enforceable Through Title V Permit
158. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGGa except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487a(e)] Federally Enforceable Through Title V Permit
159. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)] Federally Enforceable Through Title V Permit

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160. Compressors are exempt from the standards of Subpart GGGa if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment to demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593a(b)] Federally Enforceable Through Title V Permit
161. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3a (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3a(a), (b), (c), (d), (e), and (h). [40 CFR 60.593a(c)] Federally Enforceable Through Title V Permit
162. An owner or operator may use the following provision in addition to 40 CFR 60.485a(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 93, 95, or 96. [40 CFR 60.593a(d)] Federally Enforceable Through Title V Permit
163. Connectors in gas/vapor or light liquid service are exempt from the requirements in 40 CFR 60.482-11a, provided the owner or operator complies with 40 CFR 60.482-8a for all connectors, not just those in heavy liquid service. [40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit
164. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)] Federally Enforceable Through Title V Permit
165. The operator shall not burn in any fuel gas combustion device any fuel that contains hydrogen sulfide (H₂S) in excess of 0.10 gr/dscf (230 mg/dscm) [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit
166. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit
167. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H₂S as measured by the H₂S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO₂ as measured by the SO₂ continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit
168. Operator shall determine compliance with the H₂S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit
169. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit
170. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit

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171. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart GGGa. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
172. Fuel gas sulfur content shall not exceed 5 gr S/100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
173. Permittee shall determine sulfur content of combusted gas annually. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit
174. Pursuant to Rule 4320, the operator shall pay an annual emission fee to the District for NOx emissions from combustion unit(s) for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
175. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit
176. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070 and 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-33-63-13

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 28 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

MODIFICATION OF SOUR WATER AND OILY WASTEWATER OPERATION INCLUDING HYDROCRACKER AND PHENOLIC SOUR WATER STRIPPING, PHOSAM UNIT, OIL WASTEWATER CLASSIFIER (83D-13), AND MISCELLANEOUS TANKS AND ASSOCIATED PIPING - AREA 2: MODIFY PROCESS TO OPERATE UNIT 23 AS A SOUR WATER STRIPPER DIRECTING ACID GAS FROM THE STRIPPER TO THE SULFUR PLANT (UNIT 17); MODIFY PIPING FOR SOUR WATER STRIPPER (23-V4) AND HYDROCRACKER WATER STRIPPER (23-V5) AND THEIR ANCILLARY EQUIPMENT (PUMPS, EXCHANGERS AND TANK); UPGRADE ACID GAS KO DRUM (23-D5)

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Fugitive volatile organic compound (VOC) emissions shall not exceed 0.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit

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YOU **MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

Arnaud Marjolle, Director of Permit Services

5-33-63-13 : Cap 17/2014 4:40PM - RINALDIR : Joint Inspection Required with RINALDIR

5. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Off-gas from adsorber and stripper columns shall be processed in sulfur recovery plants. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Oil skims tank shall receive liquids exclusively from classifier tank #86-J-62. Liquid throughput for oil skims tank shall not exceed 750 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. True vapor pressure (TVP) of any liquid placed, stored, or held in the oil skims tank or the classifier tank #86-J-62 shall not exceed 1.5 psia at storage temperature. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
9. Permittee shall maintain records of daily liquid throughput for the oil skims tank. [District Rule 1070] Federally Enforceable Through Title V Permit
10. Pressure/vacuum relief valve on oil skims tank shall be set to 0.5 oz vacuum and 1 oz. pressure. [District Rule 2201] Federally Enforceable Through Title V Permit
11. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rules 2201 and 4455] Federally Enforceable Through Title V Permit
12. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455, 4.1 & 4.2] Federally Enforceable Through Title V Permit
13. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455, 5.1.1] Federally Enforceable Through Title V Permit
14. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455, 5.1.2] Federally Enforceable Through Title V Permit
15. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455, 5.1.3.1] Federally Enforceable Through Title V Permit

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16. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.1] Federally Enforceable Through Title V Permit
17. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.2] Federally Enforceable Through Title V Permit
18. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455, 5.1.3.2.3] Federally Enforceable Through Title V Permit
19. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455, 5.2.1 & 5.2.2] Federally Enforceable Through Title V Permit
20. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455, 5.2.3, 5.2.4, 5.2.5, 5.2.6 & 5.2.7] Federally Enforceable Through Title V Permit
21. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455, 5.2.8] Federally Enforceable Through Title V Permit
22. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455, 5.2.9 & 5.2.10] Federally Enforceable Through Title V Permit
23. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455, 5.2.11] Federally Enforceable Through Title V Permit
24. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455, 5.2.12] Federally Enforceable Through Title V Permit
25. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455, 5.2.13] Federally Enforceable Through Title V Permit

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26. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455, 5.3.1, 5.3.2 & 5.3.3] Federally Enforceable Through Title V Permit
27. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455, 5.3.4] Federally Enforceable Through Title V Permit
28. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455, 5.3.5] Federally Enforceable Through Title V Permit
29. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455, 5.3.6] Federally Enforceable Through Title V Permit
30. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455, 5.3.7] Federally Enforceable Through Title V Permit
31. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455, 5.4.1] Federally Enforceable Through Title V Permit
32. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455, 5.4.3 & 5.4.4] Federally Enforceable Through Title V Permit
33. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455, 5.4.5] Federally Enforceable Through Title V Permit
34. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455, 5.5.1 & 5.5.2] Federally Enforceable Through Title V Permit

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35. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455, 6.1.2 & 6.1.4] Federally Enforceable Through Title V Permit
36. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455, 6.2.1] Federally Enforceable Through Title V Permit
37. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455, 6.2.3] Federally Enforceable Through Title V Permit
38. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455, 6.3.1] Federally Enforceable Through Title V Permit
39. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455 6.3.2] Federally Enforceable Through Title V Permit
40. Copies of all records shall be retained for a minimum of five (5) years after the date of an entry. Such records shall be made available to the APCO, ARB, or US EPA upon request. [District Rule 4455, 6.2.2, 6.2.3 & 6.2.4] Federally Enforceable Through Title V Permit
41. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455, 6.4] Federally Enforceable Through Title V Permit
42. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455, 6.4.1] Federally Enforceable Through Title V Permit
43. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455, 6.4.2] Federally Enforceable Through Title V Permit
44. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455, 6.4.3] Federally Enforceable Through Title V Permit

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45. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455, 6.4.4] Federally Enforceable Through Title V Permit
46. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455, 6.4.5] Federally Enforceable Through Title V Permit
47. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4454, 4.0] Federally Enforceable Through Title V Permit
48. A person shall not use any compartment of any vessel or device operated for the recovery of oil or tar from effluent water, from any equipment which processes, refines, stores or handles petroleum or coal tar products unless such compartments are equipped with one of the following vapor loss control devices, except when gauging or sampling is taking place: 1) A solid cover with all openings sealed and totally enclosing the liquid contents of the compartment, except for such breathing vents as are structurally necessary, 2) A floating pontoon or double-deck type cover, equipped with closure seals that have no holes or tears, installed and maintained so that gaps between the compartment wall and seal shall not exceed one-eighth (1/8) inch for an accumulative length of 97 percent of the perimeter of the tank, and shall not exceed one-half (1/2) inch for an accumulative length of the remaining three (3) percent of the perimeter of the tank. No gap between the compartment wall and the seal shall exceed one-half (1/2) inch, or 3) A vapor recovery system with a combined collection and control efficiency of at least 90 percent by weight. [District Rule 4625, 5.1] Federally Enforceable Through Title V Permit
49. Any gauging and sampling device in the compartment cover shall be equipped with a cover or lid. The cover shall be in a closed position at all times, except when the device is in actual use. [District Rule 4625, 5.2] Federally Enforceable Through Title V Permit
50. All wastewater separator forbays shall be covered. [District Rule 4625, 5.3] Federally Enforceable Through Title V Permit
51. Skimmed oil or tar removed from wastewater separating devices shall be either charged to process units with feed or transferred to a container with a control system with at least 90 percent control efficiency by weight. [District Rule 4625, 5.4] Federally Enforceable Through Title V Permit
52. Efficiency of VOC control device shall be determined by EPA Test Method 25 and analysis of halogenated exempt compounds shall be by ARB Method 422. [District Rule 4625, 6.1.1] Federally Enforceable Through Title V Permit
53. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-33-70-6

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 28 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

THIS ATC NOT IS NECESSARY AND SHOULD BE CANCELLED THE PTO SHOULD BE CANCELLED. THIS PTO IS BEING MERGED WITH S-33-372

CONDITIONS

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-6500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjolle, Director of Permit Services

S-33-70-6 : Sep 17 2014 4:40PM - RINALDIR : Joint Inspection Required with RINALDIR

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-33-112-5

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 28 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 4,032,000 GALLON FLOATING ROOF PETROLEUM STORAGE TANK #96M01 WITH METALLIC SHOE PRIMARY SEAL AND WIPER SECONDARY SEAL. INSULATE TANK AND INSTALL STEAM COILS, MIXER, AND NOZZLES

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Gaps between the tank shell and the primary seal shall not exceed 1-1/2 inches. [District Rule 4623, 5.3.2.1.1] Federally Enforceable Through Title V Permit
4. The cumulative length of all primary seal gaps greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623, 5.3.2.1.1] Federally Enforceable Through Title V Permit
5. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623, 5.3.2.1.1] Federally Enforceable Through Title V Permit
6. No continuous gap greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623, 5.3.2.1.1] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

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Arnaud Marjolle, Director of Permit Services
S-33-112-5 - Sep 17 2014 4:40PM - RINALDIR - Joint Inspection Required with RINALDIR

7. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623, 5.3.2.1.2] Federally Enforceable Through Title V Permit
8. The cumulative length of all secondary seal gaps greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623, 5.3.2.1.2] Federally Enforceable Through Title V Permit
9. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 24 inches above the stored liquid surface. [District Rule 4623, 5.3.2.1.3] Federally Enforceable Through Title V Permit
10. The maximum gap between the shoe and the tank shell shall be no greater than double the gap allowed by the seal gap criteria for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623, 5.3.2.1.4] Federally Enforceable Through Title V Permit
11. There shall be no tears, holes or openings in the secondary seal or in the primary seal envelope surrounding the annular vapor space enclosed by the roof edge, stored liquid surface, shoe, and seal fabric. [District Rule 4623, 5.3.2.1.5] Federally Enforceable Through Title V Permit
12. The secondary seal shall allow easy insertion of probes of up to 1-1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623, 5.3.2.1.6] Federally Enforceable Through Title V Permit
13. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623, 5.3.2.1.7] Federally Enforceable Through Title V Permit
14. Pressure-vacuum valves shall be set to within ten (10) percent of the maximum allowable working pressure of the roof. [District Rule 4623, 5.2 and 5.5.1] Federally Enforceable Through Title V Permit
15. All openings in the roof used for sampling or gauging, except pressure-vacuum valves, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal, or lid. The cover, seal, or lid shall at all times be in a closed position, with no visible gaps and leak-free, except when the device or appurtenance is in use for sampling or gauging. [District Rule 4623, 5.5.1] Federally Enforceable Through Title V Permit
16. Any roof drain shall be provided with a slotted membrane fabric cover, or equivalent, that covers at least 90% of the area of the opening. [District Rule 4623, 5.5.2.2.5] Federally Enforceable Through Title V Permit
17. The permittee shall keep accurate records of Reid vapor pressure, storage temperature and types of liquids stored, and shall make such records available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit
18. True vapor pressure of the stored liquid shall not exceed 11 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
19. Tank organic liquid throughput shall not exceed 192,000 bbl/day. Permittee shall maintain daily records of tank throughput and shall make such records readily available for District inspection upon request. [District Rules 2201 and 1070] Federally Enforceable Through Title V Permit
20. Except for automatic bleeder vents, rim vents, and pressure relief vents, each opening in a non-contact external floating roof shall provide a projection below the liquid surface. [District Rule 4623, 5.5.2.2.1] Federally Enforceable Through Title V Permit
21. Except for automatic bleeder vents and rim vents, roof drains, and leg sleeves, each opening in the roof shall be equipped with a gasketed cover, seal, or lid that shall be maintained in a closed position at all times (i.e., no visible gap) except when in actual use. [District Rule 4623, 5.5.2.2.2] Federally Enforceable Through Title V Permit
22. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 4623, 5.5.2.2.3] Federally Enforceable Through Title V Permit
23. Rim vents shall be equipped with a gasket and shall be set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. [District Rule 4623, 5.5.2.2.4] Federally Enforceable Through Title V Permit

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24. External floating roof legs shall be equipped with vapor socks or vapor barriers in order to maintain a gas-tight condition so as to prevent VOC emissions from escaping through the roof leg opening. [District Rule 4623, 5.5.2.2.6] Federally Enforceable Through Title V Permit
25. Solid sampling or gauging wells, and similar fixed projections through a floating roof such as an anti-rotational pipe, shall provide a projection below the liquid surface. The well shall be equipped with a pole wiper and a gasketed cover, seal or lid which shall be in a closed position at all times (i.e., no visible gap) except when the well is in use. The gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed one-half (1/2) inch. [District Rule 4623, 5.5.2.3] Federally Enforceable Through Title V Permit
26. Slotted sampling or gauging wells shall provide a projection below the liquid surface. The well on external floating roof shall be equipped with the following: a sliding cover, a well gasket, a pole sleeve, a pole wiper, and an internal float and float wiper designed to minimize the gap between the float and the well, and provided the gap shall not exceed one-eighth (1/8) inch, or shall be equipped with a well gasket, a zero gap pole wiper seal and a pole sleeve that projects below the liquid surface. The gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed one-eighth (1/8) inch. [District Rule 4623, 5.5.2.4] Federally Enforceable Through Title V Permit
27. The permittee of external floating roof tanks shall make the primary seal envelope available for unobstructed inspection by the APCO on an annual basis at locations selected along its circumference at random by the APCO. In the case of riveted tanks with toroid-type seals, a minimum of eight (8) locations shall be made available; in all other cases, a minimum of four (4) locations shall be made available. If the APCO suspects a violation may exist the APCO may require such further unobstructed inspection of the primary seal as may be necessary to determine the seal condition for its entire circumference. [District Rule 4623 6.1.1] Federally Enforceable Through Title V Permit
28. Permittee shall inspect all floating tanks at least once every 12 months to determine compliance with the requirements of this rule. The actual gap measurements of the floating roof primary and secondary seals shall be recorded. The inspection results shall be submitted to the APCO as specified in Section 6.3.5. [District Rule 4623, 6.1.3.1] Federally Enforceable Through Title V Permit
29. Permittee shall inspect the primary and secondary seals for compliance with the requirements of this rule every time a tank is emptied or degassed. Actual gap measurements shall be performed when the liquid level is static but not more than 48 hours after the tank roof is re-floated. [District Rule 4623, 6.1.3.2] Federally Enforceable Through Title V Permit
30. Permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of Rule 4623. [District Rule 4623, 6.3.5] Federally Enforceable Through Title V Permit
31. Permittee shall maintain the records of the external floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the True Vapor pressure (TVP), API gravity, and type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. The permittee shall keep the records at the facility (or on-site) for a period of five years. The records shall be made available to the APCO upon request. [District Rule 4623, 6.3.7] Federally Enforceable Through Title V Permit
32. {2589} For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit

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33. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, or method D5191, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
34. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
35. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
36. Operator shall determine the true vapor pressure and API gravity for each petroleum liquid stored in the tank at least once per year in accordance with methods described herein. Determinations shall be made annually during summer and whenever there is a change in the originating source or type of petroleum liquid entering the tank. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
37. Construction, reconstruction, or modification of this unit was commenced prior to June 11, 1973. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
38. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids store in this unit to determine which oil are from common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
39. {3246} All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
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PERMIT NO: S-33-124-10

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 28 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

MODIFICATION OF GAS PLANT #2 INCLUDING AMINE REGENERATION SYSTEM, VOC COALESCER, DRYER SYSTEM, DE-ETHANIZER, DE-PROPANIZER, PIPING TO SRU #1 (PTO #S-33-16) AND MISC. PUMPS, PIPING, DRUMS, EXCHANGERS, AIR COOLERS, AND VESSELS; INSTALL LPG RECOVERY UNIT WITH COMPRESSORS, KNOCK OUT DRUMS, AND PROPANE REFRIGERATION UNIT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Off-gases from HTU #3 desulfurizer stripper (#S-33-52) and HCU debutanizer (#S-33-53) shall be routed to an amine absorber for sulfur removal prior to combustion, except during breakdown conditions pursuant to Rule 1100. [District Rule 2201]
4. All amine regenerator off-gas from this permit unit shall be desulfurized at SRU #1 (S-33-16) and/or SRU #3 (S-33-338), except during breakdown conditions pursuant to Rule 1100. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive volatile organic compound (VOC) emissions shall not exceed 379.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

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YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

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Arnaud Marjolle, Director of Permit Services

6-33-124-10 - Sep 17 2014 4:40PM - RINALDIR - Joint Inspection Required with RINALDIR

6. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit
8. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rules 2201 & 4455] Federally Enforceable Through Title V Permit
9. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455] Federally Enforceable Through Title V Permit
10. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit
11. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit
12. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit
13. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit
14. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit

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15. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455] Federally Enforceable Through Title V Permit
16. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit
17. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455] Federally Enforceable Through Title V Permit
18. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455] Federally Enforceable Through Title V Permit
19. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit
20. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit
21. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455] Federally Enforceable Through Title V Permit
22. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit
23. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit
24. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit
25. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

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26. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455] Federally Enforceable Through Title V Permit
27. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455] Federally Enforceable Through Title V Permit
28. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455] Federally Enforceable Through Title V Permit
29. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455] Federally Enforceable Through Title V Permit
30. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455] Federally Enforceable Through Title V Permit
31. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455] Federally Enforceable Through Title V Permit
32. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455] Federally Enforceable Through Title V Permit
33. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455] Federally Enforceable Through Title V Permit

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34. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455] Federally Enforceable Through Title V Permit
35. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455] Federally Enforceable Through Title V Permit
36. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455] Federally Enforceable Through Title V Permit
37. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455] Federally Enforceable Through Title V Permit
38. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455] Federally Enforceable Through Title V Permit
39. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455] Federally Enforceable Through Title V Permit
40. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455] Federally Enforceable Through Title V Permit
41. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455] Federally Enforceable Through Title V Permit
42. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455] Federally Enforceable Through Title V Permit
43. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455] Federally Enforceable Through Title V Permit

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44. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4455] Federally Enforceable Through Title V Permit
45. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGGa. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484a. [40 CFR 60.592a(c)] Federally Enforceable Through Title V Permit
46. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and (f) and 40 CFR 60.482-2a(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 2,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2a(a) and (b)] Federally Enforceable Through Title V Permit
47. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)] Federally Enforceable Through Title V Permit
48. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)] Federally Enforceable Through Title V Permit
49. Any PLLS that is designated, as described in 40 CFR 60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e)] Federally Enforceable Through Title V Permit
50. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)] Federally Enforceable Through Title V Permit
51. Any pump in PLLS that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(d)(4) through (6) if: 1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2a(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)] Federally Enforceable Through Title V Permit
52. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482a-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)] Federally Enforceable Through Title V Permit
53. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(a)] Federally Enforceable Through Title V Permit

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54. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9a. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(b)] Federally Enforceable Through Title V Permit
55. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4a(c)] Federally Enforceable Through Title V Permit
56. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4a(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9a. [40 CFR 60.482-4a(d)] Federally Enforceable Through Title V Permit
57. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1), (2), (3), and (4). [40 CFR 60.482-5a(a), (b), and (c)] Federally Enforceable Through Title V Permit
58. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1a(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6a(a) and (c)] Federally Enforceable Through Title V Permit
59. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6a(b)] Federally Enforceable Through Title V Permit
60. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)] Federally Enforceable Through Title V Permit
61. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)] Federally Enforceable Through Title V Permit
62. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c) and (f). A leak is detected if an instrument reading of 500 ppm or greater is measured. [40 CFR 60.482-7a(a) and (b)] Federally Enforceable Through Title V Permit
63. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7a(c)] Federally Enforceable Through Title V Permit
64. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7a(c)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)] Federally Enforceable Through Title V Permit

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65. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f)] Federally Enforceable Through Title V Permit
66. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7a(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7a(g)] Federally Enforceable Through Title V Permit
67. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through §60.14 or §60.15 and was constructed on or before January 5, 1981; or has less than 3.0 percent of its total number of valves designated as difficult-to-monitor by the owner or operator. 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7a(h)] Federally Enforceable Through Title V Permit
68. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a as an alternative to the requirements in 40 CFR 60.482-7a. [40 CFR 60.592a(b)] Federally Enforceable Through Title V Permit
69. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8a(a) and (b), 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit
70. When a leak is detected in pumps and valves in heavy liquid service, and pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7a(e). [40 CFR 60.482-8a(c) and (d), 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit
71. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10a(b)] Federally Enforceable Through Title V Permit
72. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10a(c)] Federally Enforceable Through Title V Permit
73. Flares used to comply with Subpart GGGa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)] Federally Enforceable Through Title V Permit
74. Owners or operators of control devices used to comply with the provisions of Subpart GGGa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)] Federally Enforceable Through Title V Permit

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75. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system used to comply with the provisions of Subpart GGGa shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10a(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10a(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10a(f) and (g)] Federally Enforceable Through Title V Permit
76. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10a(h)] Federally Enforceable Through Title V Permit
77. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2). [40 CFR 60.482-10a(i)] Federally Enforceable Through Title V Permit
78. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)] Federally Enforceable Through Title V Permit
79. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)] Federally Enforceable Through Title V Permit
80. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10a(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10a(l)] Federally Enforceable Through Title V Permit
81. Closed vent systems and control devices used to comply with provisions of Subpart GGGa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)] Federally Enforceable Through Title V Permit
82. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(a)] Federally Enforceable Through Title V Permit
83. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of no more than 2,000 ppm greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring. A calibration drift assessment shall be performed, at a minimum, at the end of each Method 21 monitoring day, per 60.485a(b)(2). [40 CFR 60.485a(b)] Federally Enforceable Through Title V Permit

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84. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485a(c)] Federally Enforceable Through Title V Permit
85. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485a(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485a(d)] Federally Enforceable Through Title V Permit
86. The owner or operator shall demonstrate that equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 degrees C (1.2 in. H₂O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)] Federally Enforceable Through Title V Permit
87. Samples used in conjunction with 40 CFR 60.485a(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485a(f)] Federally Enforceable Through Title V Permit
88. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485a(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485a(g)] Federally Enforceable Through Title V Permit
89. An owner or operator of more than one affected facility subject to the provisions Subpart GGGa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)] Federally Enforceable Through Title V Permit
90. The owner or operator shall record the following information for each monitoring event required by §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification; (ii) Operator identification; (iii) Equipment identification; (iv) Date of monitoring; (v) Instrument reading. [40 CFR 60.486a(a)(3)] Federally Enforceable Through Title V Permit
91. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7a(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486a(b)] Federally Enforceable Through Title V Permit

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92. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number (except when indications of liquids dripping from a pump are designated as a leak); 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) The maximum instrument reading measured by the methods specified in 40 CFR 60.485a(a) at the time the leak is successfully repaired or determined to be nonrepairable (except when a pump is repaired by eliminating indications of liquids dripping); 5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2520] Federally Enforceable Through Title V Permit
93. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10a(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)] Federally Enforceable Through Title V Permit
94. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGGa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f) shall be signed by the owner or operator, or other mechanism as established with the permitting authority; 3) A list of equipment identification numbers for pressure relief devices required to comply with 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, and 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with §60.482-1a(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr; 7) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 8) Method 21 monitoring instrument calibration records including (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value per section 10.1 of Method 21; (v) Results of each calibration drift assessment required by §60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 9) The connector monitoring schedule for each process unit as specified in §60.482-11a(b)(3)(v); and 10) Records of each release from a pressure relief device subject to §60.482-4a. [40 CFR 60.486a(e)] Federally Enforceable Through Title V Permit

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95. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connectors stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486a(f)] Federally Enforceable Through Title V Permit
96. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)] Federally Enforceable Through Title V Permit
97. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)] Federally Enforceable Through Title V Permit
98. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480a(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486a(i)] Federally Enforceable Through Title V Permit
99. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486a(j)] Federally Enforceable Through Title V Permit
100. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart GGGa. [40 CFR 60.486a(k)] Federally Enforceable Through Title V Permit
101. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in §60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in §60.482-11a(d), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)] Federally Enforceable Through Title V Permit
102. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)] Federally Enforceable Through Title V Permit
103. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGGa except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487a(e)] Federally Enforceable Through Title V Permit
104. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)] Federally Enforceable Through Title V Permit

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105. Compressors are exempt from the standards of Subpart GGGa if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment to demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593a(b)] Federally Enforceable Through Title V Permit
106. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3a (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3a(a), (b), (c), (d), (e), and (h). [40 CFR 60.593a(c)] Federally Enforceable Through Title V Permit
107. An owner or operator may use the following provision in addition to 40 CFR 60.485a(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 93, 95, or 96. [40 CFR 60.593a(d)] Federally Enforceable Through Title V Permit
108. Connectors in gas/vapor or light liquid service are exempt from the requirements in 40 CFR 60.482-11a, provided the owner or operator complies with 40 CFR 60.482-8a for all connectors, not just those in heavy liquid service. [40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit
109. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)] Federally Enforceable Through Title V Permit
110. The operator shall not burn in any fuel gas combustion device any fuel that contains hydrogen sulfide (H₂S) in excess of 0.10 gr/dscf (230 mg/dscm) [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit
111. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit
112. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H₂S as measured by the H₂S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO₂ as measured by the SO₂ continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit
113. Operator shall determine compliance with the H₂S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit
114. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit
115. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

116. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070 and 2520] Federally Enforceable Through Title V Permit
117. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits in the following quantities: 1st quarter - 305 lbs, 2nd quarter - 305 lbs, 3rd quarter - 305 lbs, and 4th quarter - 305 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
118. ERC Certificate Number S-3663-1 (or certificates split from this certificate) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-33-138-7

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 27 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 462,000 GALLON FIXED ROOF STORAGE TANK #70-T11007: INSTALL HEATING COILS, MIXER, AND ODOR CONTROL

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {2587} True vapor pressure of the petroleum liquid stored shall be less than 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
4. Operator shall determine the true vapor pressure of each petroleum liquid stored in the tank at least once per year in accordance with methods described herein. Determinations shall be made annually during summer (July-September) and whenever there is a change in the originating source or type of petroleum liquid entering the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
5. {2589} For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjolle, Director of Permit Services

S-33-138-7 Sep 17 2014 4:40PM - RINALDIR : Joint Inspection Required with RINALDIR

6. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, or method D5191, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
7. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
9. Operator shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The record shall include the tank identification number, PTO number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. An operator who uses the information in Appendix A of District Rule 4623 (5/19/05) to demonstrate the TVP and/or API gravity of the stored organic liquid shall submit information to the APCO within 45 days after the date that the type of organic liquid stored in the tank has been determined. [District Rule 4623] Federally Enforceable Through Title V Permit
10. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit
11. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.113(b)] Federally Enforceable Through Title V Permit
12. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart K. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
13. Construction, reconstruction, or modification of this unit was commenced prior to May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-33-139-5

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 27 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 462,000 GALLON FIXED ROOF STORAGE TANK #70-T11008: INSTALL HEATING COILS, MIXER, AND ODOR CONTROL

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {2587} True vapor pressure of the petroleum liquid stored shall be less than 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
4. Operator shall determine the true vapor pressure of each petroleum liquid stored in the tank at least once per year in accordance with methods described herein. Determinations shall be made annually during summer (July-September) and whenever there is a change in the originating source or type of petroleum liquid entering the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
5. {2589} For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

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Arnaud Marjolle, Director of Permit Services

S-33-139-5: Sep 17 2014 4:40PM -- RINALDIR : Joint Inspection Required with RINALDIR

6. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, or method D5191, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
7. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
9. Operator shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The record shall include the tank identification number, PTO number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. An operator who uses the information in Appendix A of District Rule 4623 (5/19/05) to demonstrate the TVP and/or API gravity of the stored organic liquid shall submit information to the APCO within 45 days after the date that the type of organic liquid stored in the tank has been determined. [District Rule 4623] Federally Enforceable Through Title V Permit
10. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit
11. Construction, reconstruction, or modification of this unit was commenced prior to May 19, 1978 and the TVP of liquid stored in this tank is not equal to or greater than 0.5 psia. Therefore, the requirements of 40 CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
12. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids store in this unit to determine which oil are from common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-33-349-18

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 28 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

MODIFICATION OF CD HYDRO UNIT #27 INCLUDING 50 MMBTU/HR HEATER 27H1, ACCUMULATOR, FEED BOTTOM EXCHANGERS, CONDENSERS, REFORMATE COOLERS, REBOIL CIRCULATING PUMPS, REFLUX PUMPS, HYDROGEN FEED GUARD BED, HYDROGEN RECYCLE COMPRESSOR (27-C1), BENZENE SATURATION COLUMN (27-V1), & 2 HYDRO SULFUR GUARD DRUMS - AREA 2: ADDITION OF REFORMATE SPLITTER COLUMN (REACTOR 27-V2) AND ASSOCIATED VESSELS, EXCHANGERS, AND PUMPS; PIPING MODIFICATIONS; TRANSFER HEATER 11-H11 FROM PERMIT S-33-49, INSTALL INDUSTRIAL COMBUSTION AHE-3500, MODEL LNDG 420-8 LOW NOX BURNERS (OR DISTRICT APPROVED EQUIVALENT), AND RENAME THE HEATER 27-H2; MODIFY BENZENE SATURATION COLUMN (27-V1)

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. Approval of the equivalent equipment shall be made only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the specifically authorized equipment. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

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Arnaud Marjolle, Director of Permit Services
S-33-349-18 : Sep 17 2014 4:40PM -- RINALDIR : Joint inspection Required with RINALDIR

4. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emission rates, equipment drawing(s), and operational characteristics/parameters. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No emission factor and no emission shall be greater for the alternate equipment than for the proposed equipment. No changes in the hours of operation, operating rate, throughput, or firing rate may be authorized for any alternate equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
8. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit
9. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
11. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
12. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
13. Permittee shall meet all applicable requirements of NSPS Subparts A, J, GGGa, and QQQ. [District Rule 4001] Federally Enforceable Through Title V Permit
14. Except during startup and shutdown, heater 27H1 emission rates shall not exceed the following: PM10: 0.014 lb/MMBtu, NOx: 0.036 lb/MMBtu or 30 ppmv @ 3% O₂, VOC: 0.005 lb/MMBtu, and CO: 100 ppmv @ 3% O₂. Emission limits are on a one hour average. [District NSR Rule, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
15. Except during startup and shutdown, heater 27H2 emission rates shall not exceed the following: PM10: 0.0075 lb/MMBtu, NOx: 0.029 lb/MMBtu or 24 ppmv @ 3% O₂, VOC: 0.005 lb/MMBtu, and CO: 200 ppmv @ 3% O₂. Emission limits are on a one hour average. [District Rule 2201, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
16. Emission rates from heater 27H1 shall not exceed any of the following: PM10: 16.8 lb/day, SOx (as SO₂): 34.3 lb/day, VOC: 6.0 lb/day, NOx (as NO₂): 43.2 lb/day, or CO: 90.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit
17. Emission rates from heater 27H2 shall not exceed any of the following: PM10: 6.3 lb/day, SOx (as SO₂): 10.0 lb/day, VOC: 4.5 lb/day, NOx (as NO₂): 24.5 lb/day, or CO: 124.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
18. For heaters 27H1 and 27H2, duration of start-up and shutdown shall not exceed 2 hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
19. Permittee shall maintain records of duration of each start-up and shutdown for a period of five years and make such records readily available for District inspection upon request. [District Rules 2080, 4305 and 4306] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

20. For each heater, permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
21. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
25. Source testing to measure natural gas-combustion NO_x and CO emissions from each heater shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
27. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
28. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
29. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, 4351] Federally Enforceable Through Title V Permit
30. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

31. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
32. Fugitive volatile organic compound (VOC) emissions shall not exceed 94.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
33. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit
34. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit
35. Leaks from valves and connectors associated with the LUX sulfur absorbers 27-D3 A/B and subject to the provisions of Rule 4455 shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background. [District Rule 2201] Federally Enforceable Through Title V Permit
36. Leaks from seals on pump 27-P3 and subject to the provisions of Rule 4455 shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background. [District Rule 2201] Federally Enforceable Through Title V Permit
37. Permittee shall maintain records of hhv of fuel burned and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
38. The number of representative units source tested for NOx emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 4306, 6.3.2.5] Federally Enforceable Through Title V Permit
39. The portable combustion analyzer shall be calibrated prior to each use with a two-point calibration method (zero and span). Calibration shall be performed with certified calibration gases. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
40. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
41. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
42. {588} Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
43. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
44. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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45. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
46. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
47. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules, 4305, 6.2.1, 4306, 6.2.1, and 4351, 6.2.1] Federally Enforceable Through Title V Permit
48. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
49. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2] Federally Enforceable Through Title V Permit
50. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rules 2201 & 4455] Federally Enforceable Through Title V Permit
51. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455] Federally Enforceable Through Title V Permit
52. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit
53. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

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54. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit
55. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit
56. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit
57. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455] Federally Enforceable Through Title V Permit
58. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit
59. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455] Federally Enforceable Through Title V Permit
60. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455] Federally Enforceable Through Title V Permit
61. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit
62. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit
63. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455] Federally Enforceable Through Title V Permit
64. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit

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65. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit
66. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit
67. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit
68. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components; not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455] Federally Enforceable Through Title V Permit
69. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455] Federally Enforceable Through Title V Permit
70. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455] Federally Enforceable Through Title V Permit
71. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455] Federally Enforceable Through Title V Permit
72. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455] Federally Enforceable Through Title V Permit
73. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455] Federally Enforceable Through Title V Permit

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74. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455] Federally Enforceable Through Title V Permit
75. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455] Federally Enforceable Through Title V Permit
76. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455] Federally Enforceable Through Title V Permit
77. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455] Federally Enforceable Through Title V Permit
78. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455] Federally Enforceable Through Title V Permit
79. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455] Federally Enforceable Through Title V Permit
80. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455] Federally Enforceable Through Title V Permit
81. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455] Federally Enforceable Through Title V Permit
82. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455] Federally Enforceable Through Title V Permit

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83. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455] Federally Enforceable Through Title V Permit
84. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455] Federally Enforceable Through Title V Permit
85. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455] Federally Enforceable Through Title V Permit
86. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4455] Federally Enforceable Through Title V Permit
87. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGGa. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484a. [40 CFR 60.592a(c)] Federally Enforceable Through Title V Permit
88. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b), except as provided in 40 CFR 60.482-1a(c) and (f) and 40 CFR 60.482-2a(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 2,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2a(a) and (b)] Federally Enforceable Through Title V Permit
89. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2a(c)] Federally Enforceable Through Title V Permit
90. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2a(a) provided the requirements specified in 40 CFR 60.482-2a(d)(1) through (6) are met. [40 CFR 60.482a(d)] Federally Enforceable Through Title V Permit
91. Any PLLS that is designated, as described in 40 CFR 60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2a(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2a(e)(1), (2), and (3). [40 CFR 60.482-2a(e)] Federally Enforceable Through Title V Permit
92. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from the requirements of 40 CFR 60.482-2a(a) through (e). [40 CFR 60.482-2a(f)] Federally Enforceable Through Title V Permit

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93. Any pump in PLLS that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2a(a) and 40 CFR 60.482-2a(d)(4) through (6) if: 1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2a(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2a(c) if a leak is detected. [40 CFR 60.482-2a(g)] Federally Enforceable Through Title V Permit
94. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482a-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2a(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2a(h)] Federally Enforceable Through Title V Permit
95. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(a)] Federally Enforceable Through Title V Permit
96. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9a. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485a(c). [40 CFR 60.482-4a(b)] Federally Enforceable Through Title V Permit
97. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b). [40 CFR 60.482-4a(c)] Federally Enforceable Through Title V Permit
98. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4a(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4a(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9a. [40 CFR 60.482-4a(d)] Federally Enforceable Through Title V Permit
99. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1a(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5a(b)(1), (2), (3), and (4). [40 CFR 60.482-5a(a), (b), and (c)] Federally Enforceable Through Title V Permit
100. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1a(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6a(a) and (c)] Federally Enforceable Through Title V Permit
101. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6a(b)] Federally Enforceable Through Title V Permit
102. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6a(a), (b) and (c). [40 CFR 60.482-6a(d)] Federally Enforceable Through Title V Permit
103. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6a(a) through (c) are exempt from the requirements of 40 CFR 60.482-6a(a) through (c). [40 CFR 60.482-6a(e)] Federally Enforceable Through Title V Permit

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104. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485a(b) and shall comply with 40 CFR 60.482-7a(b) through (e), except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.483-1a, 40 CFR 60.483-2a, and 40 CFR 60.482-1a(c) and (f). A leak is detected if an instrument reading of 500 ppm or greater is measured. [40 CFR 60.482-7a(a) and (b)] Federally Enforceable Through Title V Permit
105. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7a(c)] Federally Enforceable Through Title V Permit
106. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9a. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7a(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7a(d) and (e)] Federally Enforceable Through Title V Permit
107. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7a(a) if the valve meets the requirements specified in 40 CFR 60.482-7a(f)(1), (2), and (3). [40 CFR 60.482-7a(f)] Federally Enforceable Through Title V Permit
108. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7a(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7a(g)] Federally Enforceable Through Title V Permit
109. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7a(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through §60.14 or §60.15 and was constructed on or before January 5, 1981; or has less than 3.0 percent of its total number of valves designated as difficult-to-monitor by the owner or operator. 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7a(h)] Federally Enforceable Through Title V Permit
110. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1a and 60.483-2a as an alternative to the requirements in 40 CFR 60.482-7a. [40 CFR 60.592a(b)] Federally Enforceable Through Title V Permit
111. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485a(b) and shall comply with the requirements of 40 CFR 60.482-8a(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8a(a) and (b), 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit
112. When a leak is detected in pumps and valves in heavy liquid service, and pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9a. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7a(e). [40 CFR 60.482-8a(c) and (d), 40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit
113. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10a(b)] Federally Enforceable Through Title V Permit

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114. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10a(c)] Federally Enforceable Through Title V Permit
115. Flares used to comply with Subpart GGGa shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10a(d)] Federally Enforceable Through Title V Permit
116. Owners or operators of control devices used to comply with the provisions of Subpart GGGa shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10a(e)] Federally Enforceable Through Title V Permit
117. Except as provided in 40 CFR 60.482-10a(i) through (k), each closed vent system used to comply with the provisions of Subpart GGGa shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10a(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10a(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10a(f) and (g)] Federally Enforceable Through Title V Permit
118. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10a(h)] Federally Enforceable Through Title V Permit
119. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2). [40 CFR 60.482-10a(i)] Federally Enforceable Through Title V Permit
120. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(j)(1) and (j)(2). [40 CFR 60.482-10a(j)] Federally Enforceable Through Title V Permit
121. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10a(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10a(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10a(k)(1) through (k)(3). [40 CFR 60.482-10a(k)] Federally Enforceable Through Title V Permit
122. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486a(c); 4) For each inspection conducted in accordance with 40 CFR 60.485a(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10a(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10a(l)] Federally Enforceable Through Title V Permit
123. Closed vent systems and control devices used to comply with provisions of Subpart GGGa shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10a(m)] Federally Enforceable Through Title V Permit
124. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485a, except as provided in 40 CFR 60.8(b). [40 CFR 60.485a(a)] Federally Enforceable Through Title V Permit

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125. The owner or operator shall determine compliance with the standards in 40 CFR 60.482-1a through 60.482-11a, 60.483a, and 60.484a as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of no more than 2,000 ppm greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring. A calibration drift assessment shall be performed, at a minimum, at the end of each Method 21 monitoring day, per 60.485a(b)(2). [40 CFR 60.485a(b)] Federally Enforceable Through Title V Permit
126. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, 60.482-7a(f), and 60.482-10a(e) as follows: 1) The requirements of 40 CFR 60.485a(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485a(c)] Federally Enforceable Through Title V Permit
127. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485a(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485a(d)] Federally Enforceable Through Title V Permit
128. The owner or operator shall demonstrate that equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 degrees C (1.2 in. H₂O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485a(e)] Federally Enforceable Through Title V Permit
129. Samples used in conjunction with 40 CFR 60.485a(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485a(f)] Federally Enforceable Through Title V Permit
130. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485a(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485a(g)] Federally Enforceable Through Title V Permit
131. An owner or operator of more than one affected facility subject to the provisions Subpart GGGa may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486a(a)(2)] Federally Enforceable Through Title V Permit
132. The owner or operator shall record the following information for each monitoring event required by §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a: (i) Monitoring instrument identification; (ii) Operator identification; (iii) Equipment identification; (iv) Date of monitoring; (v) Instrument reading. [40 CFR 60.486a(a)(3)] Federally Enforceable Through Title V Permit

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133. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7a(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486a(b)] Federally Enforceable Through Title V Permit
134. When each leak is detected as specified in 40 CFR 60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number (except when indications of liquids dripping from a pump are designated as a leak); 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) The maximum instrument reading measured by the methods specified in 40 CFR 60.485a(a) at the time the leak is successfully repaired or determined to be nonreparable (except when a pump is repaired by eliminating indications of liquids dripping); 5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486a(c) and District Rule 2520] Federally Enforceable Through Title V Permit
135. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10a shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10a(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a. [40 CFR 60.486a(d)] Federally Enforceable Through Title V Permit
136. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1a to 60.482-11a shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGGa; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2a(e), 60.482-3a(i) and 60.482-7a(f) shall be signed by the owner or operator, or other mechanism as established with the permitting authority; 3) A list of equipment identification numbers for pressure relief devices required to comply with 60.482-4a; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2a(e), 60.482-3a(i), 60.482-4a, and 60.482-7a(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; 5) A list of identification numbers for equipment in vacuum service; 6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with §60.482-1a(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr; 7) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service; 8) Method 21 monitoring instrument calibration records including (i) Date of calibration and initials of operator performing the calibration; (ii) Calibration gas cylinder identification, certification date, and certified concentration; (iii) Instrument scale(s) used; (iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value per section 10.1 of Method 21; (v) Results of each calibration drift assessment required by §60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value); (vi) If an owner or operator makes their own calibration gas, a description of the procedure used; 9) The connector monitoring schedule for each process unit as specified in §60.482-11a(b)(3)(v); and 10) Records of each release from a pressure relief device subject to §60.482-4a. [40 CFR 60.486a(e)] Federally Enforceable Through Title V Permit

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137. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2a(g), and all connectors subject to the requirements of 40 CFR 60.482-11a(e) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connectors stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486a(f)] Federally Enforceable Through Title V Permit
138. The following information shall be recorded for valves complying with 40 CFR 60.483-2a: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486a(g)] Federally Enforceable Through Title V Permit
139. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2a(d)(5) and 60.482-3a(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486a(h)] Federally Enforceable Through Title V Permit
140. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480a(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486a(i)] Federally Enforceable Through Title V Permit
141. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486a(j)] Federally Enforceable Through Title V Permit
142. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart GGGa. [40 CFR 60.486a(k)] Federally Enforceable Through Title V Permit
143. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486a: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7a(b) or 40 CFR 60.483-2a, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7a(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2a(c)(1) and (d)(6), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3a(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3a(g)(1), (vii) Number of connectors for which leaks were detected as described in §60.482-11a(b), (viii) Number of connectors for which leaks were not repaired as required in §60.482-11a(d), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487a(a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487a(c)] Federally Enforceable Through Title V Permit
144. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1a and 60.483-2a shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487a(d)] Federally Enforceable Through Title V Permit
145. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGGa except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487a(e)] Federally Enforceable Through Title V Permit
146. The semiannual reporting requirements of 40 CFR 60.487a(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487a(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487a(f)] Federally Enforceable Through Title V Permit

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147. Compressors are exempt from the standards of Subpart GGGa if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment to demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593a(b)] Federally Enforceable Through Title V Permit
148. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3a (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3a(a), (b), (c), (d), (e), and (h). [40 CFR 60.593a(c)] Federally Enforceable Through Title V Permit
149. An owner or operator may use the following provision in addition to 40 CFR 60.485a(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 93, 95, or 96. [40 CFR 60.593a(d)] Federally Enforceable Through Title V Permit
150. Connectors in gas/vapor or light liquid service are exempt from the requirements in 40 CFR 60.482-11a, provided the owner or operator complies with 40 CFR 60.482-8a for all connectors, not just those in heavy liquid service. [40 CFR 60.593a(g)] Federally Enforceable Through Title V Permit
151. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 40 CFR 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5). [40 CFR 60.482-1a(d)] Federally Enforceable Through Title V Permit
152. (i.) [Special Conditions]
153. The operator shall not burn in any fuel gas combustion device any fuel that contains hydrogen sulfide (H₂S) in excess of 0.10 gr/dscf (230 mg/dscm) [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit
154. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit
155. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H₂S as measured by the H₂S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO₂ as measured by the SO₂ continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit
156. Operator shall determine compliance with the H₂S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit
157. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit
158. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit

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159. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
160. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart GGGa. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
161. Fuel gas sulfur content shall not exceed 5 gr S/100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
162. Permittee shall determine sulfur content of combusted gas annually. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit
163. Pursuant to Rule 4320, the operator shall pay an annual emission fee to the District for NOx emissions from combustion unit(s) for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
164. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit
165. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits in the following quantities: 1st quarter - 243 lbs, 2nd quarter - 243 lbs, 3rd quarter - 242 lbs, and 4th quarter - 242 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
166. ERC Certificate Number S-3663-1 (or certificates split from this certificate) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
167. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070 and 2520] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-33-372-4

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 27 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

MODIFICATION OF LIQUEFIED PETROLEUM GAS AND NATURAL GASOLINE TRUCK LOADING/UNLOADING LANES WITH SEVEN PUMPS SERVED BY VAPOR RECOVERY SYSTEM; RELOCATION; ADDITION OF ONE-LANE TRUCK UNLOADING RACK FROM PERMIT S-33-70; AND CONSTRUCTION OF ONE ADDITIONAL LANE FOR A TOTAL OF FOUR LANES

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Organic liquid transfer shall be with vapor control such that VOC emissions do not exceed 0.08 lb per 1000 gallons of liquid loaded. [District Rule 4624, 4.1] Federally Enforceable Through Title V Permit
4. Fugitive volatile organic compound (VOC) emissions shall not exceed 4.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit

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YOU **MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCCO

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Arnaud Marjolle, Director of Permit Services
S-33-372-4, Sep 17 2014 4:40PM - RINALDIR : Joint Inspection Required with RINALDIR

6. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Vacuum purge system shall be activated prior to transport tank disconnect to displace organic vapors to vapor recovery system. [District Rule 4624] Federally Enforceable Through Title V Permit
8. Operator shall ensure all required source testing conforms to the compliance testing procedures described in District Rule 1081 (as amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
9. The vapor collection and control system shall operate such that the pressure in the delivery tank being loaded does not exceed 18 inches water column pressure and 6 inches water column vacuum. This requirement shall not apply to the transfer of liquid petroleum gas. [District Rules 4624, 5.4] Federally Enforceable Through Title V Permit
10. All delivery tanks which previously contained organic liquids, including gasoline, with a TVP greater than 1.5 psia at loading conditions shall be filled only at Class 1 loading facilities using bottom loading equipment with a vapor collection and control system operating such that VOC emissions do not exceed 0.08 lb/1000 gallons loaded. [District Rules 4624, 5.5] Federally Enforceable Through Title V Permit
11. The construction of any new top loading facility or the reconstruction, as defined in 40 CFR 60.15, or the expansion of any existing top loading facility with top loading equipment shall not be allowed. [District Rule 4624, 5.7] Federally Enforceable Through Title V Permit
12. The transfer rack vapor collection and control equipment shall be designed, installed, maintained and operated such that there are no leaks and no excess organic liquid drainage at disconnections. [District Rule 4624, 5.6] Federally Enforceable Through Title V Permit
13. Excess organic liquid drainage is defined as more than ten (10) milliliters liquid drainage. Such liquid drainage for disconnect operations shall be determined by computing the average drainage from three consecutive disconnects at any one permit unit. [District Rule 4624, 3.13] Federally Enforceable Through Title V Permit
14. In an organic liquid transfer facility, a leak is defined as the dripping of VOC-containing liquid at a rate of more than three (3) drops per minute, or for organic liquids other than gasoline, the detection of any gaseous or vapor emissions with a concentration of VOC greater than 1,000 ppmv above background as methane, or for gasoline, a concentration of VOC greater than 10,000 ppmv as methane above background when measured using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rule 4624, 3.17] Federally Enforceable Through Title V Permit
15. During the transfer of organic liquids, the operator shall perform and record the results of monthly leak inspections of the loading and vapor collection equipment at each transfer rack. Leak inspections shall be conducted using sight, sound, or smell. Once each calendar quarter, in lieu of the regular monthly monitoring, the operator shall monitor the vapor collection and control system and each transfer rack using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rule 4624, 5.9.1 and 6.3.8, and 40 CFR 60.502(j)] Federally Enforceable Through Title V Permit
16. Corrective steps shall be taken at any time the operator observes excess drainage at disconnect. In addition, the operator shall perform and record the results of drainage inspections at disconnect conducted on a quarter of the loading arms every calendar quarter. However, if one or more excess drainage condition is found during a quarterly inspection, the inspection frequency shall change to quarterly for all loading arms. If no excess drainage is found after four consecutive quarterly inspection of all loading arms, the inspection frequency shall return to inspections of a quarter of the loading arms every calendar quarter. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
17. Compliance shall be demonstrated by collecting all drainage at disconnect in a spouted container. The drainage shall be transferred to a graduated cylinder and the volume determined within one (1) minute of collection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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18. Each leaking component shall be repaired or replaced within 72 hours after detection. If the leaking component cannot be repaired or replaced within 72 hours, it shall be taken out of service until such time as it is repaired or replaced. Components taken out of service shall be repaired or replaced within 15 calendar days of leak detection. The repaired or replacement equipment shall be reinspected the first time the equipment is in operation after the repair or replacement. [District Rule 4624, 5.9.3 and 40 CFR 60.502(j)] Federally Enforceable Through Title V Permit
19. For an organic liquid transfer facility, an operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually provided no leaks were found during five consecutive quarterly inspections. Upon identification of any leak during an annual inspection, the inspection frequency shall revert back to quarterly, and the operator shall contact the APCO in writing within 14 days. [District Rule 4624, 5.9.4] Federally Enforceable Through Title V Permit
20. The permittee shall maintain an inspection log containing at least the following: A) dates of leak and drainage inspections, B) leak determination method, C) findings, D) corrective action (date each leak or excess drainage condition repaired, reasons for any leak repair interval in excess of 15 days), and E) inspector name and signature. [District Rule 4624, 6.1.3 and 40 CFR 60.505(e)] Federally Enforceable Through Title V Permit
21. VOC emissions from the transfer rack vapor collection and control system shall be determined annually using 40 CFR 60.503. "Test Methods and Procedures" and EPA Methods 2A, 2B, 25A and 25B and ARB Method 422, or ARB Test Procedure TP-203.1. [District Rule 4624, 6.3.2] Federally Enforceable Through Title V Permit
22. {885} VOC emissions shall be determined annually using 40CFR 60.503 "Test Methods and Procedures," and EPA Reference Methods 2A, 2B, 25A and 25B and ARB Method 432, or ARB Method 2-4. [District Rule 4624, 6.2.2] Federally Enforceable Through Title V Permit
23. The vapor collection and control system (VCCS) shall be tested annually to demonstrate the pressure in the delivery tanks being loaded complies with the requirements specified in this permit. Compliance shall be determined by calibrating and installing a liquid manometer, magnehelic device, or other instrument demonstrated to be equivalent, capable of measuring up to 500 mm water gauge pressure with a precision of 2.5 mm water gauge, on the terminal's VCCS at a pressure tap as close as possible to the connection with the product tank truck. The highest instantaneous pressure measurement as well as all pressure measurements at 5 minute intervals during delivery vessel loading must be recorded. Every loading position must be tested at least once during the annual performance test. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
24. {868} The vapor collection and control system shall consist of a device which returns collected vapors to a product storage tank only. The system shall not include a device which incinerates, adsorbs or otherwise treats collected vapors. [District Rule 2520, 9.1] Federally Enforceable Through Title V Permit
25. {869} Loading of a delivery vessel shall discontinue if its pressure relief valve opens. Corrective action shall be taken should this condition occur. [District Rule 2520, 9.1] Federally Enforceable Through Title V Permit
26. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table I in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table I in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rule 4455] Federally Enforceable Through Title V Permit

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27. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455, 4.1 & 4.2] Federally Enforceable Through Title V Permit
28. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455, 5.1.1] Federally Enforceable Through Title V Permit
29. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455, 5.1.2] Federally Enforceable Through Title V Permit
30. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455, 5.1.3.1] Federally Enforceable Through Title V Permit
31. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.1] Federally Enforceable Through Title V Permit
32. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.2] Federally Enforceable Through Title V Permit
33. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455, 5.1.3.2.3] Federally Enforceable Through Title V Permit
34. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455, 5.2.1 & 5.2.2] Federally Enforceable Through Title V Permit
35. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455, 5.2.3, 5.2.4, 5.2.5, 5.2.6 & 5.2.7] Federally Enforceable Through Title V Permit
36. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455, 5.2.8] Federally Enforceable Through Title V Permit

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37. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455, 5.2.9 & 5.2.10] Federally Enforceable Through Title V Permit
38. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455, 5.2.11] Federally Enforceable Through Title V Permit
39. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455, 5.2.12] Federally Enforceable Through Title V Permit
40. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455, 5.2.13] Federally Enforceable Through Title V Permit
41. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455, 5.3.1, 5.3.2 & 5.3.3] Federally Enforceable Through Title V Permit
42. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455, 5.3.4] Federally Enforceable Through Title V Permit
43. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455, 5.3.5] Federally Enforceable Through Title V Permit
44. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455, 5.3.6] Federally Enforceable Through Title V Permit
45. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455, 5.3.7] Federally Enforceable Through Title V Permit
46. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455, 5.4.1] Federally Enforceable Through Title V Permit

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47. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455, 5.4.3 & 5.4.4] Federally Enforceable Through Title V Permit
48. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455, 5.4.5] Federally Enforceable Through Title V Permit
49. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455, 5.5.1 & 5.5.2] Federally Enforceable Through Title V Permit
50. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455, 6.1.2 & 6.1.4] Federally Enforceable Through Title V Permit
51. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455, 6.2.1] Federally Enforceable Through Title V Permit
52. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455, 6.2.3] Federally Enforceable Through Title V Permit
53. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455, 6.3.1] Federally Enforceable Through Title V Permit
54. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455 6.3.2] Federally Enforceable Through Title V Permit

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55. Copies of all records shall be retained for a minimum of five (5) years after the date of an entry. Such records shall be made available to the APCO, ARB, or US EPA upon request. [District Rule 4455, 6.2.2, 6.2.3 & 6.2.4] Federally Enforceable Through Title V Permit
56. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455, 6.4] Federally Enforceable Through Title V Permit
57. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455, 6.4.1] Federally Enforceable Through Title V Permit
58. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455, 6.4.2] Federally Enforceable Through Title V Permit
59. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455, 6.4.3] Federally Enforceable Through Title V Permit
60. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455, 6.4.4] Federally Enforceable Through Title V Permit
61. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455, 6.4.5] Federally Enforceable Through Title V Permit
62. Compliance with these permit conditions in the Title V permit shall be deemed compliance with the following requirements: District Rule 4624 (amended December 20, 2007). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
63. Operator shall maintain all records of required monitoring data and support information for inspection for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
64. Permittee shall maintain accurate records of liquid type, vapor pressure (TVP or RVP), and amount of each liquid transferred. Such records shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
65. The permittee shall keep records of daily liquid throughput and maintain an inspection log containing at least the following: A) dates of leak and drainage inspections, B) leak determination method, C) findings, D) corrective action (date each leak or excess drainage condition repaired), and E) inspector name and signature. [District Rule 2520, 9.3.2 and 4624, 6.1.3] Federally Enforceable Through Title V Permit
66. Upon Implementation of this Authority Construct, PTO S-33-70 shall be cancelled. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
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PERMIT NO: S-33-440-0

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

EQUIPMENT DESCRIPTION:

ORGANIC LIQUID TRANSFER OPERATION WITH CRUDE OIL RAILCAR UNLOADING RACK AND ASSOCIATED OFFLOADING, TRANSFER AND BOOSTER PUMPS (6 TOTAL WITH A CAPACITY OF UP TO 350 HP FOR EACH PUMP), AND PIPING, INCLUDING STEAM FOR HEATING AND UTILITIES

CONDITIONS

1. (1830) This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. (1831) Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. There shall be no more than 312 disconnects per day and 75,920 disconnects per year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Fugitive volatile organic compound (VOC) emissions shall not exceed 7.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule] Federally Enforceable Through Title V Permit

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YOU **MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, CAPCO

Arnaud Marjolle, Director of Permit Services

S-33-440-0 - Mar 13 2015 11:49AM - RINALDIR - Joint Inspection Required with RINALDIR

6. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Loading of any material into railcars is not permitted. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Maximum liquid spillage for liquids from organic liquid transfer operation shall not exceed 3.2 milliliters/disconnect based on an average from 3 consecutive disconnects. [District Rules 2201 and 4624] Federally Enforceable Through Title V Permit
9. For this Class 1 organic liquid transfer facility, the emission of VOC from the transfer operation shall not exceed 0.08 pounds per 1,000 gallons of organic liquid transferred. [District Rule 4624] Federally Enforceable Through Title V Permit
10. All unloaded liquids and gases shall be routed to one of the following systems: a vapor collection and control system; a fixed roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); a floating roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or a pressure vessel equipped with an APCO-approved vapor recovery system that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or a closed VOC emission control system. [District Rule 4624] Federally Enforceable Through Title V Permit
11. Components serving this operation shall be maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
12. A leak is defined as the dripping of VOC-containing liquid at a rate of more than three (3) drops per minute; or for organic liquids other than gasoline, the detection of any gaseous or vapor emissions with a concentration of VOC greater than 1,000 ppmv above a background as methane when measured in accordance with the test method in Section 6.3.7; or for gasoline, a concentration of VOC greater than 10,000 ppmv, as methane, above background when measured in accordance with the test method in Section 6.3.7. Any liquid or gas coming from a component undergoing repair or replacement, or during sampling of process fluid from equipment into a container is not considered a leak provided such activities are accomplished as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rules 2201 and 4624] Federally Enforceable Through Title V Permit
13. The operator of an organic liquid transfer facility shall inspect the vapor collection system, the vapor disposal system, and each transfer rack handling organic liquids for leaks during transfer at least once every calendar quarter using the test method prescribed in Section 6.3.8 of Rule 4624. [District Rule 4624] Federally Enforceable Through Title V Permit
14. A floating roof container that meets the applicable control requirements of Section 5.0 of Rule 4623 (Storage of Organic Liquids) shall be considered not leaking when receiving unloaded liquids for compliance with Rule 4624. [District Rule 4624] Federally Enforceable Through Title V Permit
15. All equipment that is found leaking shall be repaired or replaced within 72 hours. If the leaking component cannot be repaired or replaced within 72 hours, the component shall be taken out of service until such time the component is repaired or replaced. The repaired or replacement equipment shall be reinspected the first time the equipment is in operation after the repair or replacement. [District Rule 4624] Federally Enforceable Through Title V Permit
16. An operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually provided no leaks were found during the inspections required under provisions of Sections 5.9.1 and 5.9.2 of Rule 4624 during five consecutive quarterly inspections. Upon identification of any leak during an annual inspection the frequency shall revert back to quarterly and the operator shall contact the APCO in writing within 14 days. [District Rule 4624] Federally Enforceable Through Title V Permit
17. Daily and annual records of the throughputs of materials transferred, the results of any required leak inspections, and the quantity and type of components in service shall be maintained. [District Rules 2201 and 4624] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

18. Daily and annual records of the number of disconnects shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
19. All records required by this permit shall be retained for a period of at least 5 years and shall be made available to the District upon request. [District Rules 1070 and 4624] Federally Enforceable Through Title V Permit
20. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits in the following quantities: 1st quarter - 1149 lbs, 2nd quarter - 1149 lbs, 3rd quarter - 1149 lbs, and 4th quarter - 1149 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
21. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits in the following quantities: 1st quarter - 3750 lbs, 2nd quarter - 3750 lbs, 3rd quarter - 3750 lbs, and 4th quarter - 3750 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
22. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits in the following quantities: 1st quarter - 95 lbs, 2nd quarter - 95 lbs, 3rd quarter - 95 lbs, and 4th quarter - 95 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
23. Prior to operating equipment under this Authority to Construct, permittee shall surrender PM emission reduction credits in the following quantities: 1st quarter - 65 lbs, 2nd quarter - 65 lbs, 3rd quarter - 65 lbs, and 4th quarter - 65 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
24. Prior to operating equipment under this Authority to Construct, permittee shall surrender CO emission reduction credits in the following quantities: 1st quarter - 515 lbs, 2nd quarter - 515 lbs, 3rd quarter - 515 lbs, and 4th quarter - 515 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
25. ERC Certificate Numbers S-4334-2, S-3465-5, S-3462-4, S-3458-3, and S-3663-1 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-33-441-0

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

EQUIPMENT DESCRIPTION:
21 MMBTU/HR CLEVER BROOKS MODEL CB700X (500 HP) NATURAL GAS-FIRED BOILER (OR DISTRICT APPROVED EQUIVALENT) WITH A NT1700 500ULTRA LOW NOX BURNER

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. Approval of the equivalent equipment shall be made only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the specifically authorized equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emission rates, equipment drawing(s), and operational characteristics/parameters. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-33-441-0 - Mar 2 2015 11:07AM - RINALDR - Joint Inspection Required with RINALDR

6. No emission factor and no emission shall be greater for the alternate equipment than for the proposed equipment. No changes in the hours of operation, operating rate, throughput, or firing rate may be authorized for any alternate equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
8. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit
9. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
11. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
12. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
13. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
14. {450} Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
15. Unit shall be only fired on PUC-regulated natural gas. [District Rule 2201, District Rule 4301, 5.2.1 and 40 CFR § 60.42c(d)] Federally Enforceable Through Title V Permit
16. Permittee shall determine sulfur content of combusted gas annually or shall demonstrate that the combusted gas is provided from a PUC or FERC regulated source. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit
17. The duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
19. Except during startup and shutdown periods emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 6 ppmv NO_x @ 3% O₂ or 0.007 lb-NO_x/MMBtu, 0.0075 lb-PM₁₀/MMBtu, 25 ppmv CO @ 3% O₂ or 0.0185 lb-CO/MMBtu, or 0.0054 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
20. Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by: ASTM D 240 or D 2382 for liquid hydrocarbon fuels; ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2, 4305, 6.2.1, 4306, 6.2.1, and 4320, 6.2.1] Federally Enforceable Through Title V Permit
21. The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

22. This unit shall be tested for compliance with the NO_x and CO emissions limits at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit.
23. Nitrogen oxide (NO_x) emission concentrations in ppmv referenced at dry stack emissions shall be corrected to 3% O₂ and lb/MMBtu rates shall be calculated as lb NO₂/MMBtu of heat input (hhv). [District Rules 4305, 8.1, 4306, 8.1, and 4320, 8.1] Federally Enforceable Through Title V Permit
24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 1081, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
25. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
27. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
29. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
30. Source testing to measure NO_x and CO emissions shall be conducted within 60 days of initial operation under this ATC. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
31. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
32. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
33. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

34. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
35. {2804} Operator shall maintain copies of fuel invoices and supplier certifications. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
36. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
37. {2807} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rule 405 (Madera), 408 and 409 (Kern), and 408 (all six remaining counties in the San Joaquin Valley); Rule 404 (Madera) 406 (Fresno), and 407 (all six remaining counties in the San Joaquin Valley); SJVUAPCD Rule 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
38. {2808} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rule 4201, 4301, 4305, and 4351. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
39. {2809} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
40. {2810} The requirements of 40 CFR 72.6(b) are not applicable because this is not an affected unit under the acid rain provisions. The requirements of 40 CFR 60.40c do not apply to this source because it is not used to produce electricity for sale. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. Prior to operating equipment under this Authority to Construct, permittee shall surrender NO_x emission reduction credits in the following quantities: 1st quarter - 503 lbs, 2nd quarter - 503 lbs, 3rd quarter - 503 lbs, and 4th quarter - 503 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
42. Prior to operating equipment under this Authority to Construct, permittee shall surrender SO_x emission reduction credits in the following quantities: 1st quarter - 644 lbs, 2nd quarter - 644 lbs, 3rd quarter - 644 lbs, and 4th quarter - 644 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
43. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits in the following quantities: 1st quarter - 372 lbs, 2nd quarter - 372 lbs, 3rd quarter - 372 lbs, and 4th quarter - 372 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
44. Prior to operating equipment under this Authority to Construct, permittee shall surrender PM emission reduction credits in the following quantities: 1st quarter - 343 lbs, 2nd quarter - 343 lbs, 3rd quarter - 343 lbs, and 4th quarter - 343 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
45. Prior to operating equipment under this Authority to Construct, permittee shall surrender CO emission reduction credits in the following quantities: 1st quarter - 851 lbs, 2nd quarter - 851 lbs, 3rd quarter - 851 lbs, and 4th quarter - 851 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
46. ERC Certificate Numbers S-4334-2, S-3465-5, S-3462-4, S-3458-3, and S-3663-1 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-33-442-0

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING

MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

EQUIPMENT DESCRIPTION:

21 MMBTU/HR CLEVER BROOKS MODEL CB700X (500 HP) NATURAL GAS-FIRED BOILER (OR DISTRICT APPROVED EQUIVALENT) WITH A NT1700 500ULTRA LOW NOX BURNER

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. Approval of the equivalent equipment shall be made only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the specifically authorized equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emission rates, equipment drawing(s), and operational characteristics/parameters. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

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Arnaud Marjolle, Director of Permit Services

S-33-442-0 - Mar 2 2016 11:07AM - RNALDIR - Joint Inspection Required with RNALDIR

6. No emission factor and no emission shall be greater for the alternate equipment than for the proposed equipment. No changes in the hours of operation, operating rate, throughput, or firing rate may be authorized for any alternate equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
8. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit
9. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
11. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
12. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
13. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
14. {450} Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
15. Unit shall be only fired on PUC-regulated natural gas. [District NSR Rule, District Rule 4301, 5.2.1 and 40 CFR § 60.42c(d)] Federally Enforceable Through Title V Permit
16. Permittee shall determine sulfur content of combusted gas annually or shall demonstrate that the combusted gas is provided from a PUC or FERC regulated source. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit
17. The duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
19. Except during startup and shutdown periods emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 6 ppmv NO_x @ 3% O₂ or 0.007 lb-NO_x/MMBtu, 0.0075 lb-PM₁₀/MMBtu, 25 ppmv CO @ 3% O₂ or 0.0185 lb-CO/MMBtu, or 0.0054 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
20. Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by: ASTM D 240 or D 2382 for liquid hydrocarbon fuels; ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2, 4305, 6.2.1, 4306, 6.2.1, and 4320, 6.2.1] Federally Enforceable Through Title V Permit
21. The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

22. This unit shall be tested for compliance with the NO_x and CO emissions limits at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
23. Nitrogen oxide (NO_x) emission concentrations in ppmv referenced at dry stack emissions shall be corrected to 3% O₂ and lb/MMBtu rates shall be calculated as lb NO₂/MMBtu of heat input (hhv). [District Rules 4305, 8.1, 4306, 8.1, and 4320, 8.1] Federally Enforceable Through Title V Permit
24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 1081, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
25. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
27. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
29. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
30. Source testing to measure NO_x and CO emissions shall be conducted within 60 days of initial operation under this ATC. [District Rules 4305, 4306 and 4320]
31. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
32. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
33. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

34. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
35. (2804) Operator shall maintain copies of fuel invoices and supplier certifications. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
36. {3246} All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]
37. {2807} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rule 405 (Madera), 408 and 409 (Kern), and 408 (all six remaining counties in the San Joaquin Valley); Rule 404 (Madera) 406 (Fresno), and 407 (all six remaining counties in the San Joaquin Valley); SJVUAPCD Rule 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
38. {2808} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rule 4201, 4301, 4305, and 4351. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
39. {2809} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
40. {2810} The requirements of 40 CFR 72.6(b) are not applicable because this is not an affected unit under the acid rain provisions. The requirements of 40 CFR 60.40c do not apply to this source because it is not used to produce electricity for sale. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. Prior to operating equipment under this Authority to Construct, permittee shall surrender NO_x emission reduction credits in the following quantities: 1st quarter - 503 lbs, 2nd quarter - 503 lbs, 3rd quarter - 503 lbs, and 4th quarter - 503 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
42. Prior to operating equipment under this Authority to Construct, permittee shall surrender SO_x emission reduction credits in the following quantities: 1st quarter - 644 lbs, 2nd quarter - 644 lbs, 3rd quarter - 644 lbs, and 4th quarter - 644 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
43. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits in the following quantities: 1st quarter - 372 lbs, 2nd quarter - 372 lbs, 3rd quarter - 372 lbs, and 4th quarter - 372 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
44. Prior to operating equipment under this Authority to Construct, permittee shall surrender PM emission reduction credits in the following quantities: 1st quarter - 343 lbs, 2nd quarter - 343 lbs, 3rd quarter - 343 lbs, and 4th quarter - 343 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
45. Prior to operating equipment under this Authority to Construct, permittee shall surrender CO emission reduction credits in the following quantities: 1st quarter - 851 lbs, 2nd quarter - 851 lbs, 3rd quarter - 851 lbs, and 4th quarter - 851 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
46. ERC Certificate Numbers S-4334-2, S-3465-5, S-3462-4, S-3458-3, and S-3663-1 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-33-443-0

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

EQUIPMENT DESCRIPTION:
21 MMBTU/HR CLEVER BROOKS MODEL CB700X (500 HP) NATURAL GAS-FIRED BOILER (OR DISTRICT APPROVED EQUIVALENT) WITH A NT1700 500ULTRA LOW NOX BURNER

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. Approval of the equivalent equipment shall be made only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the specifically authorized equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emission rates, equipment drawing(s), and operational characteristics/parameters. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (881) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

Arnaud Marjollet, Director of Permit Services

S-33-443-0; Mar 2 2015 11:08AM - RINALDIR : Joint Inspection Required with RINALDIR

6. No emission factor and no emission shall be greater for the alternate equipment than for the proposed equipment. No changes in the hours of operation, operating rate, throughput, or firing rate may be authorized for any alternate equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The fuel line(s) to any dormant heater(s) shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
8. Permittee shall submit written notification to the District upon designating a heater as dormant or active [District Rule 2080] Federally Enforceable Through Title V Permit
9. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Upon recommencing operation of a dormant heater, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
11. Any source testing required by this permit shall be performed within 60 days of recommencing operation of a dormant heater, regardless of whether the heater remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
12. Records of all dates and times that any heater is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
13. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
14. {450} Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
15. Unit shall be only fired on PUC-regulated natural gas. [District NSR Rule, District Rule 4301, 5.2.1 and 40 CFR § 60.42c(d)] Federally Enforceable Through Title V Permit
16. Permittee shall determine sulfur content of combusted gas annually or shall demonstrate that the combusted gas is provided from a PUC or FERC regulated source. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit
17. The duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
19. Except during startup and shutdown periods emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 6 ppmv NO_x @ 3% O₂ or 0.007 lb-NO_x/MMBtu, , 0.0075 lb-PM₁₀/MMBtu, 25 ppmv CO @ 3% O₂ or 0.0185 lb-CO/MMBtu, or 0.0054 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
20. Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by: ASTM D 240 or D 2382 for liquid hydrocarbon fuels; ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2, 4305, 6.2.1, 4306, 6.2.1, and 4320, 6.2.1] Federally Enforceable Through Title V Permit
21. The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

22. This unit shall be tested for compliance with the NOx and CO emissions limits at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
23. Nitrogen oxide (NOx) emission concentrations in ppmv referenced at dry stack emissions shall be corrected to 3% O2 and lb/MMBtu rates shall be calculated as lb NO2/MMBtu of heat input (hhv). [District Rules 4305, 8.1, 4306, 8.1, and 4320, 8.1] Federally Enforceable Through Title V Permit
24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 1081, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
25. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
29. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
30. Source testing to measure NOx and CO emissions shall be conducted within 60 days of initial operation under this ATC. [District Rules 4305, 4306 and 4320]
31. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
32. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
33. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

34. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
35. {2804} Operator shall maintain copies of fuel invoices and supplier certifications. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
36. {3246} All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]
37. {2807} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rule 405 (Madera), 408 and 409 (Kern), and 408 (all six remaining counties in the San Joaquin Valley); Rule 404 (Madera) 406 (Fresno), and 407 (all six remaining counties in the San Joaquin Valley); SJVUAPCD Rule 4801. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
38. {2808} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rule 4201, 4301, 4305, and 4351. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
39. {2809} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
40. {2810} The requirements of 40 CFR 72.6(b) are not applicable because this is not an affected unit under the acid rain provisions. The requirements of 40 CFR 60.40c do not apply to this source because it is not used to produce electricity for sale. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. Prior to operating equipment under this Authority to Construct, permittee shall surrender NO_x emission reduction credits in the following quantities: 1st quarter - 503 lbs, 2nd quarter - 503 lbs, 3rd quarter - 503 lbs, and 4th quarter - 503 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
42. Prior to operating equipment under this Authority to Construct, permittee shall surrender SO_x emission reduction credits in the following quantities: 1st quarter - 644 lbs, 2nd quarter - 644 lbs, 3rd quarter - 644 lbs, and 4th quarter - 644 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
43. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits in the following quantities: 1st quarter - 372 lbs, 2nd quarter - 372 lbs, 3rd quarter - 372 lbs, and 4th quarter - 372 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
44. Prior to operating equipment under this Authority to Construct, permittee shall surrender PM emission reduction credits in the following quantities: 1st quarter - 343 lbs, 2nd quarter - 343 lbs, 3rd quarter - 343 lbs, and 4th quarter - 343 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
45. Prior to operating equipment under this Authority to Construct, permittee shall surrender CO emission reduction credits in the following quantities: 1st quarter - 851 lbs, 2nd quarter - 851 lbs, 3rd quarter - 851 lbs, and 4th quarter - 851 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
46. ERC Certificate Numbers S-4334-2, S-3465-5, S-3462-4, S-3458-3, and S-3663-1 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-33-444-0

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

EQUIPMENT DESCRIPTION:
UP TO 25,000 BBL FIXED ROOF STORAGE TANK (#71-T10M25) CONNECTED TO VAPOR CONTROL SYSTEM

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor control system consisting of vapor and condensate collection systems capable of reducing VOC emissions by at least 99%. [District Rules 2201, 4623, 5.6.1 and 40 CFR 60.112b(a)(3)] Federally Enforceable Through Title V Permit
4. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
5. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation, except as provided below. [District Rule 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

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Arnaud Marjolle, Director of Permit Services
S-33-444-0: Sep 17 2014 4:41PM - RINALDIR - Joint Inspection Required with RINALDIR

6. If any of the tank components are found to be leaking (>500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21), the facility operator shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected, and found to be in compliance with the requirements of Rule 4623 and subpart Kb. The operator shall maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
7. Leaks measuring > 500 ppmv and < 10,000 ppmv, or leaks measuring > 10,000 ppmv from components within five feet of the tank that have been discovered by the operator and have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
8. Upon detection of any leaks >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane, the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to eliminate the leak shall exceed 56 hours after detection. [District Rule 4623] Federally Enforceable Through Title V Permit
9. If a component type for a given tank is found to leak above the 10,000 ppmv during an annual inspection, then quarterly inspections of that component type on the tank or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to leak less than 10,000 ppmv, inspections interval may revert to annual. [District Rule 4623] Federally Enforceable Through Title V Permit
10. Any tank gauging or sampling device on a tank vented to the vapor control system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
11. Total controlled VOC emissions from fugitive components shall not exceed 1.3 lbs/day. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Operator shall maintain records demonstrating compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using an accurate component count and the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit
13. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. [District Rule 4623 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
14. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
15. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623 or 2080] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

16. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623 or 2080] Federally Enforceable Through Title V Permit
17. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid is placed, held, or stored in this tank. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
18. Tank may be disconnected from vapor control system during maintenance and cleaning periods provided liquids and vapors subject to Rule 4623 are completely removed and vapor lines are isolated. [District Rule 4623] Federally Enforceable Through Title V Permit
19. Permittee shall receive written or faxed approval from the District Compliance division prior to tank vapor control system disconnection. [District Rule 4623] Federally Enforceable Through Title V Permit
20. Upon reconnection to vapor control system, permittee shall demonstrate using a portable hydrocarbon monitor that all tank pressure relief valves and other fugitive components associated with the tank are gas tight, as defined in Rule 4623. [District 2201 and 4623] Federally Enforceable Through Title V Permit
21. Collected vapors shall discharge only to refinery fuel gas or flare gas system. [District Rule 2201] Federally Enforceable Through Title V Permit
22. As part of its notification required by 40 CFR 60.7(a)(1) or 60.7(a)(2), the operator shall submit to the APCO for approval an operating plan as described in 40 CFR 60.113b(c) and shall operate the closed vent system and monitor the parameters of the system in accordance with the approved operating plan. The operator shall keep a record of the measured values of the parameters monitored in accordance with the approved operating plan. The operating plan shall be retained for the life of the control equipment. [40 CFR 60.113b(c), 60.115b(c)] Federally Enforceable Through Title V Permit
23. Operator shall determine the presence of VOC leaks by EPA Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases; 1.) Zero air (less than 10 ppm of hydrocarbon in air); and 2.) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
24. Operator shall maintain a record showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. [40 CFR 60.116b(b)] Federally Enforceable Through Title V Permit
25. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor control system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources, and the efficiency of any VOC destruction device. [District Rule 4623] Federally Enforceable Through Title V Permit
26. The efficiency of any VOC destruction device shall be measured by EPA Method 25, 25a, or 25b, and analysis of halogenated exempt compounds shall be analyzed by ARB Method 432. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
27. The operator shall ensure that the vapor control system is functional and is operating as designed whenever emissions are being vented to it. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
28. Construction, reconstruction, or modification of this unit was commenced after July 23, 1984. Therefore, the requirements of 40 CFR 60 Subpart K and Ka do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

29. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 173 lbs, 2nd quarter - 173 lbs, 3rd quarter - 173 lbs, and 4th quarter - 173 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
30. ERC Certificate Number S-3663-1 (or a certificate split from this certificate) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 220 1] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-33-445-0

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

EQUIPMENT DESCRIPTION:
UP TO 25,000 BBL FIXED ROOF STORAGE TANK (#71-T10M26) CONNECTED TO VAPOR CONTROL SYSTEM

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor control system consisting of vapor and condensate collection systems capable of reducing VOC emissions by at least 99%. [District Rules 2201, 4623, 5.6.1 and 40 CFR 60.112b(a)(3)] Federally Enforceable Through Title V Permit
4. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
5. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation, except as provided below. [District Rule 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjolle, Director of Permit Services
S-33-445-0 : Sep 17 2014 4:41PM - RINALDIR : Joint Inspection Required with RINALDIR

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585

6. If any of the tank components are found to be leaking (>500 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21), the facility operator shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected, and found to be in compliance with the requirements of Rule 4623 and subpart Kb. The operator shall maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
7. Leaks measuring > 500 ppmv and < 10,000 ppmv, or leaks measuring > 10,000 ppmv from components within five feet of the tank that have been discovered by the operator and have been immediately tagged and repaired within the deadlines specified in the Emissions Minimization requirements, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the deadlines specified in the Emissions Minimization requirements, shall constitute a violation. [District Rule 4623 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
8. Upon detection of any leaks >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane, the operator shall: a. Eliminate the leak within 8 hours after detection; or b. If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; c. Eliminate the leak within 48 hours after minimization; and d. In no event that the total time to eliminate the leak shall exceed 56 hours after detection. [District Rule 4623] Federally Enforceable Through Title V Permit
9. If a component type for a given tank is found to leak above the 10,000 ppmv during an annual inspection, then quarterly inspections of that component type on the tank or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to leak less than 10,000 ppmv, inspections interval may revert to annual. [District Rule 4623] Federally Enforceable Through Title V Permit
10. Any tank gauging or sampling device on a tank vented to the vapor control system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
11. Total controlled VOC emissions from fugitive components shall not exceed 1.3 lbs/day. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Operator shall maintain records demonstrating compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using an accurate component count and the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit
13. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. [District Rule 4623 and 40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
14. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
15. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623 or 2080] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

16. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623 or 2080] Federally Enforceable Through Title V Permit
17. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid is placed, held, or stored in this tank. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
18. Tank may be disconnected from vapor control system during maintenance and cleaning periods provided liquids and vapors subject to Rule 4623 are completely removed and vapor lines are isolated. [District Rule 4623] Federally Enforceable Through Title V Permit
19. Permittee shall receive written or faxed approval from the District Compliance division prior to tank vapor control system disconnection. [District Rule 4623] Federally Enforceable Through Title V Permit
20. Upon reconnection to vapor control system, permittee shall demonstrate using a portable hydrocarbon monitor that all tank pressure relief valves and other fugitive components associated with the tank are gas tight, as defined in Rule 4623. [District 2201 and 4623] Federally Enforceable Through Title V Permit
21. Collected vapors shall discharge only to refinery fuel gas or flare gas system. [District Rule 2201] Federally Enforceable Through Title V Permit
22. As part of its notification required by 40 CFR 60.7(a)(1) or 60.7(a)(2), the operator shall submit to the APCO for approval an operating plan as described in 40 CFR 60.113b(c) and shall operate the closed vent system and monitor the parameters of the system in accordance with the approved operating plan. The operator shall keep a record of the measured values of the parameters monitored in accordance with the approved operating plan. The operating plan shall be retained for the life of the control equipment. [40 CFR 60.113b(c), 60.115b(c)] Federally Enforceable Through Title V Permit
23. Operator shall determine the presence of VOC leaks by EPA Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases; 1.) Zero air (less than 10 ppm of hydrocarbon in air); and 2.) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [40 CFR 60.112b(a)(3)(i)] Federally Enforceable Through Title V Permit
24. Operator shall maintain a record showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. [40 CFR 60.116b(b)] Federally Enforceable Through Title V Permit
25. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor control system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources, and the efficiency of any VOC destruction device. [District Rule 4623] Federally Enforceable Through Title V Permit
26. The efficiency of any VOC destruction device shall be measured by EPA Method 25, 25a, or 25b, and analysis of halogenated exempt compounds shall be analyzed by ARB Method 432. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
27. The operator shall ensure that the vapor control system is functional and is operating as designed whenever emissions are being vented to it. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
28. Construction, reconstruction, or modification of this unit was commenced after July 23, 1984. Therefore, the requirements of 40 CFR 60 Subpart K and Ka do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

29. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 173 lbs, 2nd quarter - 173 lbs, 3rd quarter - 173 lbs, and 4th quarter - 173 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
30. ERC Certificate Number S-3663-1 (or a certificate split from this certificate) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 220 1] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-33-446-0

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

EQUIPMENT DESCRIPTION:
UP TO 250,000 BBL INTERNAL (DOMED) FLOATING ROOF ORGANIC LIQUID STORAGE TANK (#71-T150M01) WITH STEAM COILS AND ANCILLARY EQUIPMENT, INCLUDING PUMPS AND PIPING

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Permittee shall comply with all 40 CFR Part 60 Subpart A notification, reporting, and recordkeeping requirements. [40 CFR 60, paragraph 60.7] Federally Enforceable Through Title V Permit
4. Reid vapor pressure of organic liquid stored shall not exceed 9.0 psia. [District Rules 2201, 4623 and 40 CFR Part 60: Subpart Kb] Federally Enforceable Through Title V Permit
5. Maximum daily throughput for tanks S-33-446 (71-T150M01) and S-33-447 (71-T150M02), combined, shall not exceed 225,000 bbls. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Maximum annual throughput for tanks S-33-446 (71-T150M01) and S-33-447 (71-T150M02), combined, shall not exceed 54,750,000 bbls. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC emissions from this unit, including VOC emissions from fugitive components, shall not exceed 29.8 lbs/day. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

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Arnaud Marjoret, Director of Permit Services
S-33-446-0: Jan 28 2016 3:30PM - RINALDIR : Joint Inspection Required with RINALDIR

8. VOC emissions from fugitive components (valves, flanges, connectors, pump seals; etc.) shall not exceed 0.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Operator shall maintain records demonstrating compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually thereafter. Compliance shall be demonstrated by calculation, using an accurate component count and the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period [District Rule 2201] Federally Enforceable Through Title V Permit
10. Seal designs shall be submitted to the APCO and shall not be installed or used unless they are approved by the APCO as meeting the criteria set forth in Sections 5.3.2.1 through 5.3.2.3 as applicable. Seal designs other than set forth in Sections 5.3.2.1 through 5.3.2.3 may be approved provided that a notice allowing the use of such design has been published in the Federal Register pursuant to CFR 40 Part 60: Subpart Kb paragraph 60.114b. [District Rule 4623] Federally Enforceable Through Title V Permit
11. The floating roof shall be floating on the surface of the stored liquid at all times (i.e., off the roof leg supports) except during the initial fill until the roof is lifted off the leg supports and when the tank is completely emptied and subsequently refilled. When the roof is resting on the leg supports the processes of filling or emptying and refilling the tank shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five calendar days prior to performing the work. The tank must be in compliance with this rule before it may land the roof on its legs. [District Rule 4623; 40 CFR 60.112b(a)(1)(i) and 63.11087(a)] Federally Enforceable Through Title V Permit
12. No gap between the tank shell and the primary seal shall exceed 1-1/2 inches. [District Rule 4623] Federally Enforceable Through Title V Permit
13. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
15. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
16. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623] Federally Enforceable Through Title V Permit
17. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
18. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit
19. The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623] Federally Enforceable Through Title V Permit
20. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623 and 40 CFR 60.113b(b)(4)(i)(B) and (ii)(C)] Federally Enforceable Through Title V Permit
21. The secondary seal shall allow easy insertion of probes of up to 1-1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
22. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

23. All openings in the roof used for sampling and gauging, except pressure-vacuum relief valves, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be leak free, except when the device or appurtenance is in use. [District Rule 4623] Federally Enforceable Through Title V Permit
24. The pressure-vacuum relief valve shall be set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve's set pressure. [District Rule 4623] Federally Enforceable Through Title V Permit
25. A leak-free condition is defined as a condition without a gas or liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv as methane, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of an organic liquid at a rate of more than three (3) drops per minute. A reading in excess of 10,000 ppmv as methane above background or a liquid leak of greater than three (3) drops per minute is a violation of this permit and Rule 4623 and shall be reported as a deviation, unless this tank is a part of Voluntary Tank Preventive Inspection and Maintenance, and Tank Interior Cleaning Program under section 5.7 of Rule 4623 and complies with all requirements in Table 5 of Rule 4623 for Internal Floating Roof Tank Preventative Inspection and Maintenance. [District Rule 4623] Federally Enforceable Through Title V Permit
26. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
27. Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents shall provide a projection below the liquid surface. [District Rule 4623; 40 CFR 60.112b(a)(1)(iii) and 63.11087(a)] Federally Enforceable Through Title V Permit
28. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover, or a lid shall be maintained in a closed position at all times (i.e. no visible gaps) except when the device is in use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted in place except when they are in use. [District Rule 4623; 40 CFR 60.112b(a)(1)(iv) and 63.11087(a)] Federally Enforceable Through Title V Permit
29. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 4623; 40 CFR 60.112b(a)(1)(v) and 63.11087(a)] Federally Enforceable Through Title V Permit
30. Rim vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623; 40 CFR 60.112b(a)(1)(vi) and 63.11087(a)] Federally Enforceable Through Title V Permit
31. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90 percent of the opening. The fabric cover must be impermeable. [District Rule 4623; 40 CFR 60.112b(a)(1)(vii) and 63.11087(a)] Federally Enforceable Through Title V Permit
32. Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623; 40 CFR 60.112b(a)(1)(viii) and 63.11087(a)] Federally Enforceable Through Title V Permit
33. Each penetration of the internal floating roof that allows for the passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(1)(ix) and 63.11087(a)] Federally Enforceable Through Title V Permit
34. For solid guidepole, all solid sampling or gauging wells, and similar fixed projections through the floating roof such as anti-rotational pipe shall provide a projection below the liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit

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35. For solid guidepole, the gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed 1/2 inch. [District Rule 4623] Federally Enforceable Through Title V Permit
36. For slotted guidepole, all slotted sampling or gauging wells, and similar fixed projections through the floating roof shall provide a projection below the liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit
37. For slotted guidepole, the gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed 1/8 inch. [District Rule 4623] Federally Enforceable Through Title V Permit
38. The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623; 40 CFR 60.113b(a)(1) and 63.11092(e)(1)] Federally Enforceable Through Title V Permit
39. The permittee shall visually inspect, through the manholes, roof hatches, or other opening on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of hydro carbon vapors. Any defects found are violations of rule 4623. [District Rule 4623; 40 CFR 60.113b(a)(2) and 63.11092(e)(1)] Federally Enforceable Through Title V Permit
40. The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. Other than the gap criteria specified by this permit, no holes, tears, or other openings are allowed that would permit the escape of hydrocarbon vapors. Any defects found shall constitute a violation of this Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit
41. If any failure (i.e. visible organic liquid on the internal floating roof, holes or tears in the seal fabric) is detected during 12 month visual inspection, the permittee shall repair the items or empty and remove the storage vessel from service within 45 days. If the detected failure cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the APCO in the inspection report. Such a request must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 60.113b(a)(2) and 63.11092(e)(1)] Federally Enforceable Through Title V Permit
42. The permittee shall notify the District in writing at least 30 days prior to conducting the visual inspection of the storage vessel, so the District can arrange an observer. [40 CFR 60.113b(a)(5) and 63.11092(e)(1)] Federally Enforceable Through Title V Permit
43. The permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this Rule 4623, including the following: 1) Date the storage vessel was emptied, date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Observed condition of each component of the control equipment (seals, internal floating roof, and fittings). 4) Measurements of the gaps between the tank shell and primary and secondary seals. 5) Leak free status of the tank and floating roof deck fittings. Records of the leak-free status shall include the vapor concentration values measured in parts per million by volume (ppmv). 6) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.4 and 5.5.2.4.3 of Rule 4623. 7) Nature of defects and any corrective actions or repairs performed on the tank in order to comply with rule 4623 and 40 CFR Part 60 Subpart Kb and the date(s) such actions were taken. [District Rule 4623; 40 CFR 60.115b(a)(2), 60.115b(a)(3), and 63.11094(a)] Federally Enforceable Through Title V Permit
44. The permittee shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. [40 CFR 60.116(b)] Federally Enforceable Through Title V Permit

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45. Operator shall keep a record of type of liquids stored in each container, period of storage, storage temperature, and both the Reid and maximum true vapor pressure of such liquids. [District Rule 4623] Federally Enforceable Through Title V Permit
46. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.116b(e)] Federally Enforceable Through Title V Permit
47. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
48. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, or method D5191, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
49. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
50. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products. [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
51. Operator shall determine the true vapor pressure and API gravity for each petroleum liquid stored in the tank at least once per year in accordance with methods described herein. Determinations shall be made annually during summer and whenever there is a change in the originating source or type of petroleum liquid entering the tank. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
52. Construction, reconstruction, or modification of this unit was commenced after July 23, 1984. Therefore, the requirements of 40 CFR 60 Subpart K and Ka do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
53. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids store in this unit to determine which oil are from common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
54. Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
55. Permittee shall maintain a daily record of the volume of petroleum liquid introduced into this tank. [District Rule 2201] Federally Enforceable Through Title V Permit
56. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit
57. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 2810 lbs, 2nd quarter - 2810 lbs, 3rd quarter - 2810 lbs, and 4th quarter - 2810 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

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58. ERC Certificate Number S-3663-1 (or a certificate split from this certificate) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

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ISSUANCE DATE: DRAFT

PERMIT NO: S-33-447-0

LEGAL OWNER OR OPERATOR: ALDN BAKERSFIELD REFINING
MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

EQUIPMENT DESCRIPTION:
UP TO 250,000 BBL INTERNAL (DDMED) FLOATING RDOF DRGANIC LIQUID STDRAGE TANK (#71-T150M02) WITH STEAM COILS AND ANCILLARY EQUIPMENT, INCLUDING PUMPS AND PIPING

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. (1831) Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Permittee shall comply with all 40 CFR Part 60 Subpart A notification, reporting, and recordkeeping requirements. [40 CFR 60, paragraph 60.7] Federally Enforceable Through Title V Permit
4. Reid vapor pressure of organic liquid stored shall not exceed 9.0 psia. [District Rules 2201, 4623 and 40 CFR Part 60: Subpart Kb] Federally Enforceable Through Title V Permit
5. Maximum daily throughput for tanks S-33-446 (71-T150M01) and S-33-447 (71-T150M02), combined, shall not exceed 225,000 bbls. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Maximum annual throughput for tanks S-33-446 (71-T150M01) and S-33-447 (71-T150M02), combined, shall not exceed 54,750,000 bbls. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC emissions from this unit, including VOC emissions from fugitive components, shall not exceed 29.8 lbs/day. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

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Arnaud Marjolle, Director of Permit Services
S-33-447-0 - Jan 29 2015 3:32PM - RINALDIR - Joint Inspection Required with RINALDIR

8. VOC emissions from fugitive components (valves, flanges, connectors, pump seals, etc.) shall not exceed 0.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Operator shall maintain records demonstrating compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually thereafter. Compliance shall be demonstrated by calculation, using an accurate component count and the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period [District Rule 2201] Federally Enforceable Through Title V Permit
10. Seal designs shall be submitted to the APCO and shall not be installed or used unless they are approved by the APCO as meeting the criteria set forth in Sections 5.3.2.1 through 5.3.2.3 as applicable. Seal designs other than set forth in Sections 5.3.2.1 through 5.3.2.3 may be approved provided that a notice allowing the use of such design has been published in the Federal Register pursuant to CFR 40 Part 60: Subpart Kb paragraph 60.114b. [District Rule 4623] Federally Enforceable Through Title V Permit
11. The floating roof shall be floating on the surface of the stored liquid at all times (i.e., off the roof leg supports) except during the initial fill until the roof is lifted off the leg supports and when the tank is completely emptied and subsequently refilled. When the roof is resting on the leg supports the processes of filling or emptying and refilling the tank shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five calendar days prior to performing the work. The tank must be in compliance with this rule before it may land the roof on its legs. [District Rule 4623; 40 CFR 60.112b(a)(1)(i) and 63.11087(a)] Federally Enforceable Through Title V Permit
12. No gap between the tank shell and the primary seal shall exceed 1-1/2 inches. [District Rule 4623] Federally Enforceable Through Title V Permit
13. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
15. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
16. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623] Federally Enforceable Through Title V Permit
17. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
18. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit
19. The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623] Federally Enforceable Through Title V Permit
20. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623 and 40 CFR 60.113b(b)(4)(i)(B) and (ii)(C)] Federally Enforceable Through Title V Permit
21. The secondary seal shall allow easy insertion of probes of up to 1-1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
22. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit

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23. All openings in the roof used for sampling and gauging, except pressure-vacuum relief valves, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be leak free, except when the device or appurtenance is in use. [District Rule 4623] Federally Enforceable Through Title V Permit
24. The pressure-vacuum relief valve shall be set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve's set pressure. [District Rule 4623] Federally Enforceable Through Title V Permit
25. A leak-free condition is defined as a condition without a gas or liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv as methane, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of an organic liquid at a rate of more than three (3) drops per minute. A reading in excess of 10,000 ppmv as methane above background or a liquid leak of greater than three (3) drops per minute is a violation of this permit and Rule 4623 and shall be reported as a deviation, unless this tank is a part of Voluntary Tank Preventive Inspection and Maintenance, and Tank Interior Cleaning Program under section 5.7 of Rule 4623 and complies with all requirements in Table 5 of Rule 4623 for Internal Floating Roof Tank Preventative Inspection and Maintenance. [District Rule 4623] Federally Enforceable Through Title V Permit
26. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
27. Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents shall provide a projection below the liquid surface. [District Rule 4623; 40 CFR 60.112b(a)(1)(iii) and 63.11087(a)] Federally Enforceable Through Title V Permit
28. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover, or a lid shall be maintained in a closed position at all times (i.e. no visible gaps) except when the device is in use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted in place except when they are in use. [District Rule 4623; 40 CFR 60.112b(a)(1)(iv) and 63.11087(a)] Federally Enforceable Through Title V Permit
29. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 4623; 40 CFR 60.112b(a)(1)(v) and 63.11087(a)] Federally Enforceable Through Title V Permit
30. Rim vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623; 40 CFR 60.112b(a)(1)(vi) and 63.11087(a)] Federally Enforceable Through Title V Permit
31. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90 percent of the opening. The fabric cover must be impermeable. [District Rule 4623; 40 CFR 60.112b(a)(1)(vii) and 63.11087(a)] Federally Enforceable Through Title V Permit
32. Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623; 40 CFR 60.112b(a)(1)(viii) and 63.11087(a)] Federally Enforceable Through Title V Permit
33. Each penetration of the internal floating roof that allows for the passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(1)(ix) and 63.11087(a)] Federally Enforceable Through Title V Permit
34. For solid guidepole, all solid sampling or gauging wells, and similar fixed projections through the floating roof such as anti-rotational pipe shall provide a projection below the liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit

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35. For solid guidepole, the gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed 1/2 inch. [District Rule 4623] Federally Enforceable Through Title V Permit
36. For slotted guidepole, all slotted sampling or gauging wells, and similar fixed projections through the floating roof shall provide a projection below the liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit
37. For slotted guidepole, the gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed 1/8 inch. [District Rule 4623] Federally Enforceable Through Title V Permit
38. The permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623; 40 CFR 60.113b(a)(1) and 63.11092(e)(1)] Federally Enforceable Through Title V Permit
39. The permittee shall visually inspect, through the manholes, roof hatches, or other opening on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of hydro carbon vapors. Any defects found are violations of rule 4623. [District Rule 4623; 40 CFR 60.113b(a)(2) and 63.11092(e)(1)] Federally Enforceable Through Title V Permit
40. The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. Other than the gap criteria specified by this permit, no holes, tears, or other openings are allowed that would permit the escape of hydrocarbon vapors. Any defects found shall constitute a violation of this Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit
41. If any failure (i.e. visible organic liquid on the internal floating roof, holes or tears in the seal fabric) is detected during 12 month visual inspection, the permittee shall repair the items or empty and remove the storage vessel from service within 45 days. If the detected failure cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the APCO in the inspection report. Such a request must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 60.113b(a)(2) and 63.11092(e)(1)] Federally Enforceable Through Title V Permit
42. The permittee shall notify the District in writing at least 30 days prior to conducting the visual inspection of the storage vessel, so the District can arrange an observer. [40 CFR 60.113b(a)(5) and 63.11092(e)(1)] Federally Enforceable Through Title V Permit
43. The permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this Rule 4623, including the following: 1) Date the storage vessel was emptied, date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Observed condition of each component of the control equipment (seals, internal floating roof, and fittings). 4) Measurements of the gaps between the tank shell and primary and secondary seals. 5) Leak free status of the tank and floating roof deck fittings. Records of the leak-free status shall include the vapor concentration values measured in parts per million by volume (ppmv). 6) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.4 and 5.5.2.4.3 of Rule 4623. 7) Nature of defects and any corrective actions or repairs performed on the tank in order to comply with rule 4623 and 40 CFR Part 60 Subpart Kb and the date(s) such actions were taken. [District Rule 4623; 40 CFR 60.115b(a)(2), 60.115b(a)(3), and 63.11094(a)] Federally Enforceable Through Title V Permit
44. The permittee shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. [40 CFR 60.116b(b)] Federally Enforceable Through Title V Permit

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45. Operator shall keep a record of type of liquids stored in each container, period of storage, storage temperature, and both the Reid and maximum true vapor pressure of such liquids. [District Rule 4623] Federally Enforceable Through Title V Permit
46. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.116b(e)] Federally Enforceable Through Title V Permit
47. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
48. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, or method D5191, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
49. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
50. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products. [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
51. Operator shall determine the true vapor pressure and API gravity for each petroleum liquid stored in the tank at least once per year in accordance with methods described herein. Determinations shall be made annually during summer and whenever there is a change in the originating source or type of petroleum liquid entering the tank. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
52. Construction, reconstruction, or modification of this unit was commenced after July 23, 1984. Therefore, the requirements of 40 CFR 60 Subpart K and Ka do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
53. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids store in this unit to determine which oil are from common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
54. Permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
55. Permittee shall maintain a daily record of the volume of petroleum liquid introduced into this tank. [District Rule 2201] Federally Enforceable Through Title V Permit
56. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit
57. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 2810 lbs, 2nd quarter - 2810 lbs, 3rd quarter - 2810 lbs, and 4th quarter - 2810 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

58. ERC Certificate Number S-3663-1 (or a certificate split from this certificate) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-3303-1-6

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING
MAILING ADDRESS: P O BOX 1551
BAKERSFIELD, CA 93302-1551

LOCATION: 2436 FRUITVALE AVENUE
BAKERSFIELD, CA 93308

SECTION: 27 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

MODIFICATION OF TRUCK LOADING OPERATION INCLUDING 36 BOTTOM LOADING ARMS, 6 TOP LOADING ARMS AND VAPOR RECOVERY ARMS SERVED BY VAPOR RECOVERY SYSTEM LISTED ON PERMIT S-33-41; ADDITION OF FOUR BOTTOM LOADING ARMS AND TWO TOP LOADING ARMS; NEW JET ADDITIVE TANK AND PUMP(S); ADDITIVE TOTES AND PUMPS; PIPING MODIFICATIONS

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Loading arms shall establish a seal with delivery vessels that is leak-free, as defined in Rule 4624 (amended December 20, 2007). [District Rule 4624, 5.6] Federally Enforceable Through Title V Permit
4. Top loading arms shall be used to load fuel oil and residual oil only. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Throughput of fuel oil and vacuum residue from this permit unit this shall not exceed 1,056,000 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Vapor return arms shall be connected during diesel loading if TVP exceeds 0.008 psia at loading conditions. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

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Arnaud Marjollet, Director of Permit Services
6-3303-1-6 : Mar 13 2015 2:52PM - RINALDIR : Joint Inspection Required with RINALDIR

7. Vapor return arms shall be connected during diesel loading if vessel being loaded previously carried petroleum liquid with TVP greater than 0.008 psia at loading conditions. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Vapor return arms shall be connected during gas oil, fuel oil, heavy fuel oil or vacuum residue loading with TVP greater than 0.0012 psia at loading conditions. [District NSR Rule 2201] Federally Enforceable Through Title V Permit
9. Vapor return arms shall be connected during gas oil, fuel oil, heavy fuel oil or vacuum residue loading if vessel being previously loaded carried petroleum liquid with TVP greater than 0.0012 psia at loading conditions. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Hose couplers shall be of dry-break type to prevent liquid spill upon disconnection. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Liquid and vapor hoses, couplers, fittings and piping shall be maintained in a condition that is leak-free, as defined in Rule 4624 (amended December 20, 2007). [District Rule 4624, 5.6] Federally Enforceable Through Title V Permit
12. Fugitive VOC emission rate, excluding leakage, shall not exceed 48.5 lb/day from this permit unit. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Operator shall maintain records to demonstrate compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit
15. VOC emissions from organic liquid loading leakage and spillage shall not exceed 4.6 lb/day from this permit unit. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Operator shall ensure that all required source testing conforms to the compliance testing procedures described in District Rule 1081 (as amended December 16, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit
17. Operator shall maintain all records of required monitoring data and support information for inspection for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
18. The loading rack shall be equipped with bottom loading and a vapor collection and control system such that TOC emissions do not exceed 0.08 pounds per 1000 gallons of organic liquid with greatest vapor pressure loaded. [40 CFR 60.502(b), District Rules 2520, 9.3.2 and 4624, 5.1 and Kern County Rule 413] Federally Enforceable Through Title V Permit
19. Vapor collection and control system shall operate such that the pressure in the delivery tank being loaded does not exceed 18 inches water column pressure and 6 inches water column vacuum. [40 CFR 60.502(h), District Rule 4624, 5.4 and Kern County Rule 413] Federally Enforceable Through Title V Permit
20. {853} The transfer of gasoline from any delivery vessel to any stationary storage container with 250 gallon capacity or more shall not be allowed unless the container is equipped with a permanent submerged fill pipe and an ARB certified Phase I vapor recovery system, which is maintained and operated according to the manufacturers specifications. [District Rule 4621, 5.1.1] Federally Enforceable Through Title V Permit
21. All delivery tanks which previously contained organic liquids including gasoline, with a TVP of 1.5 psia or greater at the storage container's maximum organic liquid storage temperature shall be filled only at Class 1 loading facilities using bottom loading equipment with a vapor collection and control system operating such that VOC emissions do not exceed 0.08 lb/1000 gallons loaded. [District Rules 4624, 5.5] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

22. {856} No gasoline delivery vessel shall be used or operated unless it is vapor tight. No gasoline delivery vessel shall be operated or loaded unless valid State of California decals are displayed on the cargo tank, attesting to the vapor integrity of the tank as verified by annual performance of CARB required Certification and Test Procedures for Vapor Recovery Systems for Cargo Tanks. [District Rule 4621, 5.2.1 & 5.2.2, Health & Safety Code, section 41962, and CCR, Title 17 section 94004] Federally Enforceable Through Title V Permit
23. The test method to determine vapor tightness of delivery vessels owned or operated by this facility shall be EPA Method 27. [District Rule 4621, 6.2.3 and 40 CFR 60.503(c)] Federally Enforceable Through Title V Permit
24. Construction, reconstruction (as defined in District Rule 4001, amended April 14, 1999), or expansion of any top loading facility shall not be allowed, except for transfer of organic liquids with TVP less than 1.5 psia at the storage container's maximum organic liquid storage temperature. [District Rule 4624, 4.3 & 5.7] Federally Enforceable Through Title V Permit
25. Transfer and vapor collection and control equipment shall be designed, installed, maintained and operated such that there are no leaks or excess organic liquid drainage at disconnections. A leak shall be defined as the dripping of organic compounds at a rate of more than three drops per minute or the detection of organic compounds, in excess of 10,000 ppm as methane measured at the interface of the component from the potential source in accordance with EPA Method 21. Excess liquid drainage shall be defined as exceeding 10 mL per average of 3 consecutive disconnects. [District Rule 4624, 3.13, 3.17, and 5.6; and Kern County Rule 413] Federally Enforceable Through Title V Permit
26. During the transfer of organic liquids, the operator shall perform and record the results of monthly leak inspections of the loading and vapor collection equipment at each transfer rack. Leak inspections shall be conducted using sight, sound, or smell. Once each calendar quarter, in lieu of the regular monthly monitoring, the operator shall monitor the vapor collection and control system and each transfer rack using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rule 4624, 5.9.1 and 6.3.8, and 40 CFR 60.502(j)] Federally Enforceable Through Title V Permit
27. Corrective steps shall be taken at any time the operator observes excess drainage at disconnect. In addition, the operator shall perform and record the results of drainage inspections at disconnect conducted on a quarter of the loading arms every calendar quarter. However, if one or more excess drainage condition is found during a quarterly inspection, the inspection frequency shall change to quarterly for all loading arms. If no excess drainage is found after four consecutive quarterly inspection of all loading arms, the inspection frequency shall return to inspections of a quarter of the loading arms every calendar quarter. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
28. Compliance shall be demonstrated by collecting all drainage at disconnect in a spouted container. The drainage shall be transferred to a graduated cylinder and the volume determined within one (1) minute of collection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
29. Each leaking component shall be repaired or replaced within 72 hours after detection. If the leaking component cannot be repaired or replaced within 72 hours, it shall be taken out of service until such time as it is repaired or replaced. Components taken out of service shall be repaired or replaced within 15 calendar days of leak detection. [District Rule 4624, 5.9.3 and 40 CFR 60.502(j)] Federally Enforceable Through Title V Permit
30. The permittee shall maintain an inspection log containing at least the following: A) dates of leak and drainage inspections, B) leak determination method, C) findings, D) corrective action (date each leak or excess drainage condition repaired, reasons for any leak repair interval in excess of 15 days), and E) inspector name and signature. [District Rule 4624, 6.1.3 and 40 CFR 60.505(c)] Federally Enforceable Through Title V Permit
31. The loading rack's vapor collection and control system (VCCS) shall be tested annually to demonstrate the pressure in the delivery tanks being loaded complies with the requirements specified in this permit. Compliance shall be determined by calibrating and installing a liquid manometer, magnehelic device, or other instrument demonstrated to be equivalent, capable of measuring up to 500 mm water gauge pressure with a precision of ± 2.5 mm water gauge, on the terminal's VCCS at a pressure tap as close as possible to the connection with the product tank truck. The highest instantaneous pressure measurement as well as all pressure measurements at 5 minute intervals during delivery vessel loading must be recorded. Every loading position must be tested at least once during the annual performance test. [District Rule 2520, 9.3.2 and 40 CFR 60.503(d)] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

32. {869} Loading of a delivery vessel shall discontinue if its pressure relief valve opens. Corrective action shall be taken should this condition occur. [District Rule 2520, 9.1] Federally Enforceable Through Title V Permit
33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: Kern County Rule 413, District Rules 4621 (as amended December 20, 2007), section 5.7, and 4624 (as amended December 20, 2007). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
34. {872} Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40CFR60, Subpart XX. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
35. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits in the following quantities: 1st quarter - 79 lbs, 2nd quarter - 79 lbs, 3rd quarter - 79 lbs, and 4th quarter - 78 lbs. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
36. ERC Certificate Number S-3663-1 (or certificates split from this certificate) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
37. Formerly S-33-45-0.

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APPENDIX B
Current PTOs

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-33-8-25

EXPIRATION DATE: 08/31/2016

SECTION: 27 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

CRUDE UNIT #10 INCLUDING 209 MMBTU/HR GAS FIRED HEATER 10-H1 WITH WATER SPRAY NOZZLES FOR FLUE GAS COOLING AND SELECTIVE CATALYTIC REDUCTION (SCR), 65 MMBTU/HR GAS FIRED HEATER 10-H2, CRUDE TOWER 10-V1, DIESEL/AGO STRIPPER 10-V2A/B, DESALTER AND MISC. HEAT EXCHANGERS, PUMPS, PIPING AND VESSELS - AREA 1

PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel lines to Heater 10-H1 or 10-H2 shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the units as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of Heater 10-H1 or 10-H2, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of Heater 10-H1 or 10-H2, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that Heater 10-H1 or 10-H2 are designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Valves and connectors subject to Rule 4455 associated with heat exchangers 10-E34A/B shall also be subject to the requirements of Rule 4455 for any leak in excess of 100 ppmv above background when measured one (1) cm from the source. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall meet all applicable requirements of NSPS Subparts A, J, and GGG. [District Rule 4001] Federally Enforceable Through Title V Permit
9. Firing rate of heater 10-H2 shall not exceed 65.0 MMBtu/hr. [District Rule 2201 and District Rule 4306] Federally Enforceable Through Title V Permit
10. Continuous records of heater 10-H2's firing rate, including volumetric fuel consumption rate (corrected for temperature) and hhv of fuel burned shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
11. All sampling connections, open ended valves or lines shall be equipped with two closed valves or be capped with blind flanges or threaded plugs except during actual use. [Rule 4001] Federally Enforceable Through Title V Permit
12. Except during start-up and shutdown, crude unit heater 10-H1 emission rate shall not exceed NOx (as NO2): 0.006 lb/MMBtu or 5 ppmvd @ 3% O2, CO: 270 ppmvd @ 3% O2, and NH3: 10 ppmvd @ 3% O2. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

13. During start-up and shutdown, crude unit heater 10-H1 emission rate shall not exceed NO_x (as NO₂): 0.036 lb/MMBtu or 30 ppmvd @ 3% O₂, and CO: 270 ppmvd @ 3% O₂. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
14. Crude unit heater 10-H2 emission rate shall not exceed NO_x (as NO₂): 0.036 lb/MMBtu or 30 ppmvd @ 3% O₂, and CO: 290 ppmvd @ 3% O₂. [District Rule 2201 and District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
15. The total duration of start-up time for heater 10-H1 shall not exceed 2.0 hours per day. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
16. The total duration of shutdown time for heater 10-H1 shall not exceed 2.0 hours per day. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
17. The ammonia (NH₃) emissions from heater 10-H1 shall not exceed 10 ppmvd @ 3% O₂. [District Rule 4102]
18. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
19. The permittee shall record the daily startup and shutdown duration times of the heater 10-H1. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
20. Source testing to measure NO_x and CO emissions from Heater 10-H1 and Heater 10-H2 shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
22. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306 (amended October 16, 2008). [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
23. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
24. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit
25. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit
26. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit
27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
28. Source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

29. A Continuous Emissions Monitoring System shall be in place and operating for heater 10-H1. NOX emissions in ppmv (as NO2 corrected to 3% O2) and O2 concentrations must be recorded continuously. The CEM shall meet the requirements of 40 CFR parts 60 and 75 and shall be capable of monitoring emissions during startups and shutdowns as well as during normal operating conditions. [District Rule 2201 and District Rules 4305, 4306, 4320, and 1080] Federally Enforceable Through Title V Permit
30. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEM data polling software system and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit
31. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
32. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Source Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
33. Results of continuous emissions monitoring shall be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
34. Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
35. The owner/operator shall perform a relative accuracy test audit (RATA) as specified by 40 CFR Part 60, Appendix F, 5.11, at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
36. The permittee shall submit a written report to the APCO for each calendar quarter, within 30 days of the end of the quarter, including: time intervals, data and magnitude of excess emissions, nature and cause of excess emissions (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting shall correspond to the averaging period for each respective emission standard; applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and a negative declaration when no excess emissions occurred. [District Rule 1080] Federally Enforceable Through Title V Permit
37. The stack concentration of NOx (as NO2), CO, and O2 for unit 10-H2 shall be measured at least on a monthly basis using District approved portable analyzers. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
38. The stack concentration of CO and O2 shall be measured at least on a monthly basis using District approved portable analyzers. At the time of the CO measurement, the stack concentration of NOx shall also be measured; using either the NOx CEM or District approved portable analyzer. If the NOx CEM is used, the O2 measurement from the CEM shall be used for any needed corrections to the NOx measurement, and the CO measurement must be taken in the same area of the stack as the CEM sample. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

39. If the CO concentrations, as measured by the portable analyzer, exceed the allowable emissions rate, the permittee shall notify the District and take corrective action within one (1) hour after detection. If the portable analyzer readings continue to exceed the allowable emissions rate, the permittee shall conduct an emissions test within 60 days, utilizing District-approved test methods, to demonstrate compliance with the applicable emissions limits. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
40. The permittee shall maintain records of the date and time of NO_x, CO, and O₂ measurements, the measured NO₂ and CO concentrations corrected to 3% O₂, the O₂ concentration, and method of NO_x measurement (CEM or portable analyzer). The records must also include a description of any corrective action taken to maintain the emissions within the acceptable range. These records shall be retained at the facility for a period of no less than 5 years and shall be made available for District inspection upon request. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
41. For crude unit heater 10-H1, the permittee shall monitor and record the stack concentration of ammonia (NH₃) at least once during each month in which a source test is not performed. NH₃ monitoring shall be conducted utilizing Draeger tubes or a District approved equivalent method. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within one day of restarting the unit unless monitoring has been performed within the last month. [District Rule 4102]
42. Ammonia (NH₃) emission readings shall be converted to ppmvd @ 3% O₂. [District Rule 4102]
43. The permittee shall maintain records of: (1) the date and time of ammonia (NH₃) measurements, (2) the O₂ concentration in percent by volume and the measured NH₃ concentrations corrected to 3% O₂, (3) the method of determining the NH₃ emission concentration, and (4) a description of any corrective action taken to maintain the emissions at or below the acceptable levels. [District Rule 4102]
44. Permittee shall maintain records of hhv of fuel burned and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 2201 and District Rule 4351] Federally Enforceable Through Title V Permit
45. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NO_x emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NO_x emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit
46. The following conditions must be met for representative unit(s) to be used to test for NO_x limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
47. All units in a group for which representative units are source for NO_x emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
48. All units in a group for which representative units are source tested for NO_x emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
49. The number of representative units source tested for NO_x emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit

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50. The portable analyzer shall be calibrated prior to each use with a two-point calibration method (zero and span). Calibration shall be performed with certified calibration gases. [District Rule 2520] Federally Enforceable Through Title V Permit
51. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
52. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520] Federally Enforceable Through Title V Permit
53. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr. [District Rules 4201 and 4301] Federally Enforceable Through Title V Permit
54. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520 and District Rule 4301] Federally Enforceable Through Title V Permit
55. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520] Federally Enforceable Through Title V Permit
56. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520] Federally Enforceable Through Title V Permit
57. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520] Federally Enforceable Through Title V Permit
58. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit
59. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 4801] Federally Enforceable Through Title V Permit
60. Nitrogen oxide (NO_x) emissions shall not exceed 140 lb/hr, calculated as NO₂. [District Rule 4301] Federally Enforceable Through Title V Permit

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61. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rule 2201 and District Rule 4455] Federally Enforceable Through Title V Permit
62. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455] Federally Enforceable Through Title V Permit
63. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit
64. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit
65. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit
66. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit
67. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit
68. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455] Federally Enforceable Through Title V Permit
69. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

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70. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455] Federally Enforceable Through Title V Permit
71. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455] Federally Enforceable Through Title V Permit
72. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit
73. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit
74. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455] Federally Enforceable Through Title V Permit
75. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit
76. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit
77. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit
78. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit
79. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455] Federally Enforceable Through Title V Permit

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80. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455] Federally Enforceable Through Title V Permit
81. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455] Federally Enforceable Through Title V Permit
82. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455] Federally Enforceable Through Title V Permit
83. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455] Federally Enforceable Through Title V Permit
84. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455] Federally Enforceable Through Title V Permit
85. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455] Federally Enforceable Through Title V Permit
86. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455] Federally Enforceable Through Title V Permit

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87. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455] Federally Enforceable Through Title V Permit
88. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455] Federally Enforceable Through Title V Permit
89. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455] Federally Enforceable Through Title V Permit
90. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455] Federally Enforceable Through Title V Permit
91. Copies of all records shall be retained for a minimum of five (5) years after the date of an entry. Such records shall be made available to the APCO, ARB, or US EPA upon request. [District Rule 4455] Federally Enforceable Through Title V Permit
92. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455] Federally Enforceable Through Title V Permit
93. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455] Federally Enforceable Through Title V Permit
94. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455] Federally Enforceable Through Title V Permit
95. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455] Federally Enforceable Through Title V Permit

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96. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455] Federally Enforceable Through Title V Permit
97. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455] Federally Enforceable Through Title V Permit
98. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4454] Federally Enforceable Through Title V Permit
99. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGG. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484. [40 CFR 60.592(c)] Federally Enforceable Through Title V Permit
100. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b), except as provided in 40 CFR 60.482-1(c) and 40 CFR 60.482-2(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 10,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2(a) and (b)] Federally Enforceable Through Title V Permit
101. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2(c)] Federally Enforceable Through Title V Permit
102. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2(a) provided the requirements specified in 40 CFR 60.482-2(d)(1) through (6) are met. [40 CFR 60.482(d)] Federally Enforceable Through Title V Permit
103. Any PLLS that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2(e)(1), (2), and (3). [40 CFR 60.482-2(e)] Federally Enforceable Through Title V Permit
104. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10, it is exempt from the requirements of 40 CFR 60.482-2(a) through (e). [40 CFR 60.482-2(f)] Federally Enforceable Through Title V Permit
105. Any pump in PLLS that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2(a) and 40 CFR 60.482-2(d)(4) through (6) if: 1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2(c) if a leak is detected. [40 CFR 60.482-2(g)] Federally Enforceable Through Title V Permit

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106. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2(h)] Federally Enforceable Through Title V Permit
107. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(a)] Federally Enforceable Through Title V Permit
108. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(b)] Federally Enforceable Through Title V Permit
109. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10 is exempt from the requirements of 40 CFR 60.482-4(a) and (b). [40 CFR 60.482-4(c)] Federally Enforceable Through Title V Permit
110. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9. [40 CFR 60.482-4(d)] Federally Enforceable Through Title V Permit
111. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5(b)(1), (2), (3), and (4). [40 CFR 60.482-5(a), (b), and (c)] Federally Enforceable Through Title V Permit
112. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6(a) and (c)] Federally Enforceable Through Title V Permit
113. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6(b)] Federally Enforceable Through Title V Permit
114. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6(a), (b) and (c). [40 CFR 60.482-6(d)] Federally Enforceable Through Title V Permit
115. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6(a) through (c) are exempt from the requirements of 40 CFR 60.482-6(a) through (c). [40 CFR 60.482-6(e)] Federally Enforceable Through Title V Permit
116. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b) and shall comply with 40 CFR 60.482-7(b) through (e), except as provided in 40 CFR 60.482-7(f), (g), and (h), 40 CFR 60.483-1, 40 CFR 60.483-2, and 40 CFR 60.482-1(c). A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-7(a) and (b)] Federally Enforceable Through Title V Permit

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117. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7(c)] Federally Enforceable Through Title V Permit
118. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7(d) and (e)] Federally Enforceable Through Title V Permit
119. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7(a) if the valve meets the requirements specified in 40 CFR 60.482-7(f)(1), (2), and (3). [40 CFR 60.482-7(f)] Federally Enforceable Through Title V Permit
120. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7(g)] Federally Enforceable Through Title V Permit
121. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 40 CFR 60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor; and 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7(h)] Federally Enforceable Through Title V Permit
122. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1 and 60.483-2. [40 CFR 60.592(b)] Federally Enforceable Through Title V Permit
123. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485(b) and shall comply with the requirements of 40 CFR 60.482-8(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8(a) and (b)] Federally Enforceable Through Title V Permit
124. When a leak is detected in pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7(e). [40 CFR 60.482-8(c) and (d)] Federally Enforceable Through Title V Permit
125. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10(b)] Federally Enforceable Through Title V Permit

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126. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10(c)] Federally Enforceable Through Title V Permit.
127. Flares used to comply with Subpart GGG shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10(d)] Federally Enforceable Through Title V Permit
128. Owners or operators of control devices used to comply with the provisions of Subpart GGG shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10(c)] Federally Enforceable Through Title V Permit
129. Except as provided in 40 CFR 60.482-10(i) through (k), each closed vent system used to comply with the provisions of Subpart GGG shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10(f) and (g)] Federally Enforceable Through Title V Permit
130. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10(h)] Federally Enforceable Through Title V Permit
131. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2). [40 CFR 60.482-10(i)] Federally Enforceable Through Title V Permit
132. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10 (j)(1) and (j)(2). [40 CFR 60.482-10(j)] Federally Enforceable Through Title V Permit
133. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(k)(1) through (k)(3). [40 CFR 60.482-10(k)] Federally Enforceable Through Title V Permit
134. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486(c); 4) For each inspection conducted in accordance with 40 CFR 60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10(l)] Federally Enforceable Through Title V Permit
135. Closed vent systems and control devices used to comply with provisions Subpart GGG shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10(m)] Federally Enforceable Through Title V Permit
136. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485, except as provided in 40 CFR 60.8(b). [40 CFR 60.485(a)] Federally Enforceable Through Title V Permit

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137. The owner or operator shall determine compliance with the standards in 40 CFR 60.482, 60.483, and 60.484 as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [40 CFR 60.485(b)] Federally Enforceable Through Title V Permit
138. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows: 1) The requirements of 40 CFR 60.485(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485(c)] Federally Enforceable Through Title V Permit
139. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485(d)] Federally Enforceable Through Title V Permit
140. The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 degrees C (1.2 in. H₂O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485(e)] Federally Enforceable Through Title V Permit
141. Samples used in conjunction with 40 CFR 60.485(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485(f)] Federally Enforceable Through Title V Permit
142. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485(g)] Federally Enforceable Through Title V Permit
143. An owner or operator of more than one affected facility subject to the provisions Subpart GGG may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486(a)] Federally Enforceable Through Title V Permit
144. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486(b)] Federally Enforceable Through Title V Permit

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145. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number; 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) "Above 10,000" if the maximum instrument reading measured by the methods specified in 40 CFR 60.485(a) after each repair attempt is equal to or greater than 10,000 ppm; 5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486(c) and District Rule 2520] Federally Enforceable Through Title V Permit
146. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10 shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10(c), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5. [40 CFR 60.486(d)] Federally Enforceable Through Title V Permit
147. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGG; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with 60.482-4; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, and 60.482-7(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; and 5) A list of identification numbers for equipment in vacuum service. [40 CFR 60.486(e)] Federally Enforceable Through Title V Permit
148. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7(g) and (h) and to all pumps subject to the requirements of 40 CFR 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486(f)] Federally Enforceable Through Title V Permit
149. The following information shall be recorded for valves complying with 40 CFR 60.483-2: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486(g)] Federally Enforceable Through Title V Permit
150. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486(h)] Federally Enforceable Through Title V Permit
151. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486(i)] Federally Enforceable Through Title V Permit

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152. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486(j)] Federally Enforceable Through Title V Permit
153. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart GGG. [District 40 CFR 60.486(k)] Federally Enforceable Through Title V Permit
154. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7(b) or 40 CFR 60.483-2, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2(b) and (d)(6)(i), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2(c)(1) and (d)(6)(ii), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3(g)(1), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487 (a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487(c)] Federally Enforceable Through Title V Permit
155. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1 and 60.483-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487(d)] Federally Enforceable Through Title V Permit
156. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGG except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487(c)] Federally Enforceable Through Title V Permit
157. The semiannual reporting requirements of 40 CFR 60.487(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487(f)] Federally Enforceable Through Title V Permit
158. Compressors are exempt from the standards of Subpart GGG if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593(b)] Federally Enforceable Through Title V Permit
159. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3 (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3 (a), (b), (c), (d), (e), and (h). [40 CFR 60.593(c)] Federally Enforceable Through Title V Permit

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160. An owner or operator may use the following provision in addition to 40 CFR 60.485(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 95, or 96. [40 CFR 60.593(d)] Federally Enforceable Through Title V Permit
161. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2 to 40 CFR 60.482-10 if it is identified as required in 40 CFR 60.486(e)(5). [40 CFR 60.482-1(d)] Federally Enforceable Through Title V Permit
162. The operator shall not burn in any fuel gas combustion device any fuel that contains hydrogen sulfide (H₂S) in excess of 0.1 gr/dscf (230 mg/dscm) [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit
163. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit
164. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H₂S as measured by the H₂S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO₂ as measured by the SO₂ continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit
165. Operator shall determine compliance with the H₂S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit
166. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit
167. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit
168. For heater 10-H2, pursuant to District Rule 4320 (Adopted 10/16/08), beginning in 2010, the operator shall pay an annual emission fee to the District for NO_x emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NO_x emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
169. For heater 10-H2, permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit
170. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, and 4306] Federally Enforceable Through Title V Permit
171. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart GGG. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
172. The operator shall be in compliance with the applicable requirement in Sections 5.4.1 of District Rule 4320 (Adopted 10/16/2008) no later than July 1, 2013. [District Rule 4320] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-33-9-17

EXPIRATION DATE: 08/31/2016

SECTION: 27 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

VACUUM UNIT #11 INCLUDING NATURAL GAS/REFINERY GAS FIRED VACUUM CHARGE HEATERS 11H1 AND 11H2 (DE-RATED AT 130 MMBTU/HR TOTAL), VACUUM TOWER, FOUR STAGE VACUUM SYSTEM WITH GAS AMINE CONTACTOR AND MISC. PUMPS, PIPING, AND VESSELS - AREA 1

PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel lines to Heaters 11-H1 or 11-H2 shall be physically disconnected from the units. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating Heater 11-H1 or 11-H2 as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of Heater 11-H1 or 11-H2, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of Heater 11-H1 or 11-H2, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that Heaters 11-H1 or 11-H2 are designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Permittee shall meet all applicable requirements of NSPS Subparts A and J. [District Rule 4001] Federally Enforceable Through Title V Permit
8. Vacuum system exhaust gas shall either be collected, compressed, and added to refinery gas; controlled and combusted in an appropriate firebox or incinerator with at least 90 percent VOC control efficiency; or controlled by an equivalent method approved by the APCO. [District Rule 4453] Federally Enforceable Through Title V Permit
9. Maximum heat input of each de-rated heater, heaters 11H1 and 11H2, shall be less than or equal to 65 million Btu per hour. [District Rule 2201 and District Rule 4306] Federally Enforceable Through Title V Permit
10. Emissions from the natural gas-fired vacuum heaters 11H1 and 11H2 shall not exceed any of the following limits: 30 ppmvd NO_x @ 3% O₂ or 0.036 lb-NO_x/MMBtu, 0.0286 lb-SO_x/MMBtu, 0.0076 lb-PM₁₀/MMBtu, 225 ppmvd CO @ 3% O₂ or 0.116 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201, and District Rules 4305, and 4306] Federally Enforceable Through Title V Permit
11. All sampling connections, open ended valves or lines shall be equipped with two closed valves or be capped with blind flanges or threaded plugs except during actual use. [District Rule 2080] Federally Enforceable Through Title V Permit
12. Continuous records of each heaters (heater 11H1 and 11H2) firing rate, including volumetric fuel consumption rate (corrected for temperature) and hhv of fuel burned shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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13. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
14. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
15. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
17. Source testing to measure NO_x and CO emissions from heaters 11H1 and 11H2 while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
18. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306 (amended October 16, 2008). [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
23. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE.

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24. Permittee shall maintain records of hhv of fuel burned and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
25. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081(amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520] Federally Enforceable Through Title V Permit
26. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
27. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520] Federally Enforceable Through Title V Permit
28. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr. [District Rules 4201] Federally Enforceable Through Title V Permit
29. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520 and District Rule 4301] Federally Enforceable Through Title V Permit
30. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520] Federally Enforceable Through Title V Permit
31. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520] Federally Enforceable Through Title V Permit
32. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520] Federally Enforceable Through Title V Permit
33. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
34. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 4801] Federally Enforceable Through Title V Permit
35. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO₂. [District Rules 4301] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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36. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455] Federally Enforceable Through Title V Permit
37. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit
38. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit
39. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit
40. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit
41. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit
42. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455] Federally Enforceable Through Title V Permit
43. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit
44. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455] Federally Enforceable Through Title V Permit
45. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455] Federally Enforceable Through Title V Permit

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46. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit
47. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit
48. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455] Federally Enforceable Through Title V Permit
49. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit
50. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit
51. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit
52. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit
53. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455] Federally Enforceable Through Title V Permit
54. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455] Federally Enforceable Through Title V Permit

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55. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455] Federally Enforceable Through Title V Permit
56. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455] Federally Enforceable Through Title V Permit
57. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455] Federally Enforceable Through Title V Permit
58. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455] Federally Enforceable Through Title V Permit
59. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455] Federally Enforceable Through Title V Permit
60. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455] Federally Enforceable Through Title V Permit
61. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455] Federally Enforceable Through Title V Permit

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62. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455] Federally Enforceable Through Title V Permit
63. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455] Federally Enforceable Through Title V Permit
64. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455] Federally Enforceable Through Title V Permit
65. Copies of all records shall be retained for a minimum of five (5) years after the date of an entry. Such records shall be made available to the APCO, ARB, or US EPA upon request. [District Rule 4455] Federally Enforceable Through Title V Permit
66. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455] Federally Enforceable Through Title V Permit
67. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455] Federally Enforceable Through Title V Permit
68. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455] Federally Enforceable Through Title V Permit
69. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455] Federally Enforceable Through Title V Permit
70. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455] Federally Enforceable Through Title V Permit
71. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455] Federally Enforceable Through Title V Permit

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72. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4454] Federally Enforceable Through Title V Permit
73. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGG. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484. [40 CFR 60.592(c)] Federally Enforceable Through Title V Permit
74. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b), except as provided in 40 CFR 60.482-1(c) and 40 CFR 60.482-2(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 10,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2(a) and (b)] Federally Enforceable Through Title V Permit
75. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2(c)] Federally Enforceable Through Title V Permit
76. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2(a) provided the requirements specified in 40 CFR 60.482-2(d)(1) through (6) are met. [40 CFR 60.482(d)] Federally Enforceable Through Title V Permit
77. Any PLLS that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2(e)(1), (2), and (3). [40 CFR 60.482-2(e)] Federally Enforceable Through Title V Permit
78. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10, it is exempt from the requirements of 40 CFR 60.482-2(a) through (e). [40 CFR 60.482-2(f)] Federally Enforceable Through Title V Permit
79. Any pump in PLLS that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2(a) and 40 CFR 60.482-2(d)(4) through (6) if: 1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2(c) if a leak is detected. [40 CFR 60.482-2(g)] Federally Enforceable Through Title V Permit
80. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2(h)] Federally Enforceable Through Title V Permit
81. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(a)] Federally Enforceable Through Title V Permit

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82. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(b)] Federally Enforceable Through Title V Permit
83. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10 is exempted from the requirements of 40 CFR 60.482-4(a) and (b). [40 CFR 60.482-4(c)] Federally Enforceable Through Title V Permit
84. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9. [40 CFR 60.482-4(d)] Federally Enforceable Through Title V Permit
85. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5(b)(1), (2), (3), and (4). [40 CFR 60.482-5(a), (b), and (c)] Federally Enforceable Through Title V Permit
86. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6(a) and (c)] Federally Enforceable Through Title V Permit
87. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6(b)] Federally Enforceable Through Title V Permit
88. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6(a), (b) and (c). [40 CFR 60.482-6(d)] Federally Enforceable Through Title V Permit
89. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6(a) through (c) are exempt from the requirements of 40 CFR 60.482-6(a) through (c). [40 CFR 60.482-6(e)] Federally Enforceable Through Title V Permit
90. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b) and shall comply with 40 CFR 60.482-7(b) through (e), except as provided in 40 CFR 60.482-7(f), (g), and (h), 40 CFR 60.483-1, 40 CFR 60.483-2, and 40 CFR 60.482-1(c). A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-7(a) and (b)] Federally Enforceable Through Title V Permit
91. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7(c)] Federally Enforceable Through Title V Permit
92. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7(d) and (e)] Federally Enforceable Through Title V Permit

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93. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(e)(2), for no detectable emissions; as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7(a) if the valve meets the requirements specified in 40 CFR 60.482-7(f)(1), (2), and (3). [40 CFR 60.482-7(f)] Federally Enforceable Through Title V Permit
94. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7(g)] Federally Enforceable Through Title V Permit
95. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 40 CFR 60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor; and 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7(h)] Federally Enforceable Through Title V Permit
96. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1 and 60.483-2. [40 CFR 60.592(b)] Federally Enforceable Through Title V Permit
97. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485(b) and shall comply with the requirements of 40 CFR 60.482-8(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8(a) and (b)] Federally Enforceable Through Title V Permit
98. When a leak is detected in pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7(e). [40 CFR 60.482-8(c) and (d)] Federally Enforceable Through Title V Permit
99. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10(b)] Federally Enforceable Through Title V Permit
100. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10(c)] Federally Enforceable Through Title V Permit
101. Flares used to comply with Subpart GGG shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10(d)] Federally Enforceable Through Title V Permit
102. Owners or operators of control devices used to comply with the provisions of Subpart GGG shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10(e)] Federally Enforceable Through Title V Permit

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103. Except as provided in 40 CFR 60.482-10(i) through (k), each closed vent system used to comply with the provisions of Subpart GGG shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10(f) and (g)] Federally Enforceable Through Title V Permit
104. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10(h)] Federally Enforceable Through Title V Permit
105. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2). [40 CFR 60.482-10(i)] Federally Enforceable Through Title V Permit
106. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(j)(1) and (j)(2). [40 CFR 60.482-10(j)] Federally Enforceable Through Title V Permit
107. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(k)(1) through (k)(3). [40 CFR 60.482-10(k)] Federally Enforceable Through Title V Permit
108. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486(c); 4) For each inspection conducted in accordance with 40 CFR 60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10(l)] Federally Enforceable Through Title V Permit
109. Closed vent systems and control devices used to comply with provisions Subpart GGG shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10(m)] Federally Enforceable Through Title V Permit
110. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485, except as provided in 40 CFR 60.8(b). [40 CFR 60.485(a)] Federally Enforceable Through Title V Permit
111. The owner or operator shall determine compliance with the standards in 40 CFR 60.482, 60.483, and 60.484 as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [40 CFR 60.485(b)] Federally Enforceable Through Title V Permit

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112. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows: 1) The requirements of 40 CFR 60.485(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485(c)] Federally Enforceable Through Title V Permit
113. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485(d)] Federally Enforceable Through Title V Permit
114. The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 degrees C (1.2 in. H₂O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485(e)] Federally Enforceable Through Title V Permit
115. Samples used in conjunction with 40 CFR 60.485(d), (c), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485(f)] Federally Enforceable Through Title V Permit
116. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485(g)] Federally Enforceable Through Title V Permit
117. An owner or operator of more than one affected facility subject to the provisions Subpart GGG may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486(a)] Federally Enforceable Through Title V Permit
118. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486(b)] Federally Enforceable Through Title V Permit
119. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number; 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) "Above 10,000" if the maximum instrument reading measured by the methods specified in 40 CFR 60.485(a) after each repair attempt is equal to or greater than 10,000 ppm; 5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486(c) and District Rule 2520] Federally Enforceable Through Title V Permit

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120. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10 shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5. [40 CFR 60.486(d)] Federally Enforceable Through Title V Permit
121. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGG; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with 60.482-4; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2(c), 60.482-3(i), 60.482-4, and 60.482-7(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; and 5) A list of identification numbers for equipment in vacuum service. [40 CFR 60.486(e)] Federally Enforceable Through Title V Permit
122. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7(g) and (h) and to all pumps subject to the requirements of 40 CFR 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486(f)] Federally Enforceable Through Title V Permit
123. The following information shall be recorded for valves complying with 40 CFR 60.483-2: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486(g)] Federally Enforceable Through Title V Permit
124. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486(h)] Federally Enforceable Through Title V Permit
125. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486(i)] Federally Enforceable Through Title V Permit
126. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486(j)] Federally Enforceable Through Title V Permit
127. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart GGG. [District 40 CFR 60.486(k)] Federally Enforceable Through Title V Permit

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128. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7(b) or 40 CFR 60.483-2, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2(b) and (d)(6)(i), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2(c)(1) and (d)(6)(ii), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3(g)(1), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487 (a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487(c)] Federally Enforceable Through Title V Permit
129. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1 and 60.483-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487(d)] Federally Enforceable Through Title V Permit
130. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGG except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487(e)] Federally Enforceable Through Title V Permit
131. The semiannual reporting requirements of 40 CFR 60.487(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487(f)] Federally Enforceable Through Title V Permit
132. Compressors are exempt from the standards of Subpart GGG if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593(b)] Federally Enforceable Through Title V Permit
133. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3 (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3 (a), (b), (c), (d), (e), and (h). [40 CFR 60.593(c)] Federally Enforceable Through Title V Permit
134. An owner or operator may use the following provision in addition to 40 CFR 60.485(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 95, or 96. [40 CFR 60.593(d)] Federally Enforceable Through Title V Permit
135. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2 to 40 CFR 60.482-10 if it is identified as required in 40 CFR 60.486(e)(5). [40 CFR 60.482-1(d)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

136. The operator shall not burn in any fuel gas combustion device any fuel that contains hydrogen sulfide (H₂S) in excess of 0.1 gr/dscf (230 mg/dscm) [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit
137. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit
138. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H₂S as measured by the H₂S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO₂ as measured by the SO₂ continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit
139. Operator shall determine compliance with the H₂S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit
140. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit
141. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit
142. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, and 4455] Federally Enforceable Through Title V Permit
143. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart GGG. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
144. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NO_x emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NO_x emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
145. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit
146. The operator shall be in compliance with the applicable requirement in Sections 5.4.1 of District Rule 4320 (Adopted 10/16/2008) no later than July 1, 2013. [District Rule 4320] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-33-10-7

EXPIRATION DATE: 08/31/2016

SECTION: 27 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

GAS PLANT #10 INCLUDING (UNIT 12) DEBUTANIZER 12-V1, NAPHTHA SPLITTER 12-V4, DEPROPANIZER 15-V1, AND MISC. PUMPS, PIPING, AND VESSELS - AREA 1

PERMIT UNIT REQUIREMENTS

1. All sampling connections, open ended valves or lines shall be equipped with two closed valves or be capped with blind flanges or threaded plugs except during actual use. [District Rule 4001] Federally Enforceable Through Title V Permit
2. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455, 4.1 & 4.2] Federally Enforceable Through Title V Permit
3. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455, 5.1.1] Federally Enforceable Through Title V Permit
4. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455, 5.1.2] Federally Enforceable Through Title V Permit
5. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455, 5.1.3.1] Federally Enforceable Through Title V Permit
6. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.1] Federally Enforceable Through Title V Permit
7. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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8. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455, 5.1.3.2.3] Federally Enforceable Through Title V Permit
9. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455, 5.1.4] Federally Enforceable Through Title V Permit
10. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455, 5.2.1 & 5.2.2] Federally Enforceable Through Title V Permit
11. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455, 5.2.3, 5.2.4, 5.2.5, 5.2.6 & 5.2.7] Federally Enforceable Through Title V Permit
12. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455, 5.2.8] Federally Enforceable Through Title V Permit
13. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455, 5.2.9 & 5.2.10] Federally Enforceable Through Title V Permit
14. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455, 5.2.11] Federally Enforceable Through Title V Permit
15. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455, 5.2.12] Federally Enforceable Through Title V Permit
16. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455, 5.2.13] Federally Enforceable Through Title V Permit
17. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455, 5.3.1, 5.3.2 & 5.3.3] Federally Enforceable Through Title V Permit
18. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455, 5.3.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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19. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455, 5.3.5] Federally Enforceable Through Title V Permit
20. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455, 5.3.6] Federally Enforceable Through Title V Permit
21. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455, 5.3.7] Federally Enforceable Through Title V Permit
22. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455, 5.4.1] Federally Enforceable Through Title V Permit
23. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the recurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455, 5.4.3 & 5.4.4] Federally Enforceable Through Title V Permit
24. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455, 5.4.5] Federally Enforceable Through Title V Permit
25. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455, 5.5.1 & 5.5.2] Federally Enforceable Through Title V Permit
26. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455, 6.1.2 & 6.1.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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27. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455, 6.2.1] Federally Enforceable Through Title V Permit
28. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455, 6.2.3] Federally Enforceable Through Title V Permit
29. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455, 6.3.1] Federally Enforceable Through Title V Permit
30. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455 6.3.2] Federally Enforceable Through Title V Permit
31. Copies of all records shall be retained for a minimum of five (5) years after the date of an entry. Such records shall be made available to the APCO, ARB, or US EPA upon request. [District Rule 4455, 6.2.2, 6.2.3 & 6.2.4] Federally Enforceable Through Title V Permit
32. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455, 6.4] Federally Enforceable Through Title V Permit
33. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455, 6.4.1] Federally Enforceable Through Title V Permit
34. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455, 6.4.2] Federally Enforceable Through Title V Permit
35. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455, 6.4.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

36. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455, 6.4.4] Federally Enforceable Through Title V Permit
37. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455, 6.4.5] Federally Enforceable Through Title V Permit
38. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4454, 4.0] Federally Enforceable Through Title V Permit
39. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-33-11-12

EXPIRATION DATE: 08/31/2016

SECTION: 27 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

HYDROTREATER UNIT #8 INCLUDING 12.8 MMBTU/HR GAS-FIRED CHARGE HEATER (8-H1) WITH JOHN ZINK COOLSTAR LOW NOX BURNER, REACTOR (8-R1), SEPARATOR (8-V2), 12.8 MMBTU/HR GAS-FIRED REBOILER HEATER (8-H2) WITH JOHN ZINK COOLSTAR LOW NOX BURNER, STRIPPER (8-V4), STRIPPER RECEIVER (8-V8) AND MISC PUMPS, PIPING AND VESSELS - AREA 1

PERMIT UNIT REQUIREMENTS

1. Permittee shall meet all applicable requirements of NSPS Subparts A, J, and GGG. [District Rule 4001] Federally Enforceable Through Title V Permit
2. Except during startup and shutdown, heater 8H1 and 8H2 emission rates shall not exceed any of the following: NOx (as NO2): 0.036 lb/MMBtu or 30 ppmvd @ 3% O2, CO: 400 ppmvd @ 3% O2, VOC: 0.0055 lb/MMBtu, PM10: 0.0076 lb/MMBtu, or SOx (as SO2): 0.0286 lb/MMBtu. [District NSR Rule and District Rule 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
3. Emission rates from each heater (8H1 and 8H2) shall not exceed any of the following: PM10: 2.3 lb/day, SOx (as SO2): 8.8 lb/day, VOC: 1.7 lb/day, NOx (as NO2): 55.3 lb/day or 4,052 lb/year, or CO: 92.2 lb/day or 7,535 lb/year. [District NSR Rule] Federally Enforceable Through Title V Permit
4. For heaters 8H1 and 8H2, compliance with annual CO emission rate shall be determined by using CO emission concentrations obtained during monthly monitoring as required in this permit, fuel use, fuel heating value, and stack gas flow rate. Records of calculated CO emissions shall be maintained for a period of five years and made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
5. For heaters 8H1 and 8H2, duration of start-up and shutdown shall not exceed 2 hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
6. Permittee shall maintain records of duration of each start-up and shutdown for a period of five years and make such records readily available for District inspection upon request. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
7. For each heater, the permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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8. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
9. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
10. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
11. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306 (amended October 16, 2008). [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
12. Source testing to measure natural gas-combustion NO_x and CO emissions from each heater shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
14. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
15. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
16. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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19. Leaks from valves and connectors associated with hot high-pressure separator (8-D7) and HTU reactor feed/effluent exchangers (8-E1 G/H) that are subject to the provisions of Rule 4455 shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured one (1) cm from potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Fuel gas sulfur content (as H₂S) shall not exceed 0.1 gr/dscf (160 ppmv) over a three hour rolling average and shall be continuously monitored and recorded. [District Rule 4001] Federally Enforceable Through Title V Permit
21. Sour gas shall discharge only to amine treater, sulfur recovery plant or, under breakdown conditions, to the flare, as provided for under Rules 1100 and 4001, Subparts A and J. [District NSR Rule and District Rules 1100 and 4001] Federally Enforceable Through Title V Permit
22. VOC emissions shall not exceed 18.8 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
23. Compliance with fugitive VOC emission limit shall be demonstrated by annual component count and District approved emission factors. [District NSR Rule] Federally Enforceable Through Title V Permit
24. Permittee shall maintain records of hhv of fuel burned and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
25. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(amended December 16,1993). [District Rule 1081] Federally Enforceable Through Title V Permit
26. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
27. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
28. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
29. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
30. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
31. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
32. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2.1, 4306, 6.2.1, and 4351, 6.2.1] Federally Enforceable Through Title V Permit

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33. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 4801] Federally Enforceable Through Title V Permit
34. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rule 4301, 5.2.2] Federally Enforceable Through Title V Permit
35. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455, 4.1 & 4.2] Federally Enforceable Through Title V Permit
36. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455, 5.1.1] Federally Enforceable Through Title V Permit
37. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455, 5.1.2] Federally Enforceable Through Title V Permit
38. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455, 5.1.3.1] Federally Enforceable Through Title V Permit
39. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.1] Federally Enforceable Through Title V Permit
40. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.2] Federally Enforceable Through Title V Permit
41. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455, 5.1.3.2.3] Federally Enforceable Through Title V Permit
42. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455, 5.1.4] Federally Enforceable Through Title V Permit
43. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455, 5.2.1 & 5.2.2] Federally Enforceable Through Title V Permit

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44. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455, 5.2.3, 5.2.4, 5.2.5, 5.2.6 & 5.2.7] Federally Enforceable Through Title V Permit
45. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455, 5.2.8] Federally Enforceable Through Title V Permit
46. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455, 5.2.9 & 5.2.10] Federally Enforceable Through Title V Permit
47. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455, 5.2.11] Federally Enforceable Through Title V Permit
48. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455, 5.2.12] Federally Enforceable Through Title V Permit
49. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455, 5.2.13] Federally Enforceable Through Title V Permit
50. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455, 5.3.1, 5.3.2 & 5.3.3] Federally Enforceable Through Title V Permit
51. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455, 5.3.4] Federally Enforceable Through Title V Permit
52. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455, 5.3.5] Federally Enforceable Through Title V Permit
53. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455, 5.3.6] Federally Enforceable Through Title V Permit

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54. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455, 5.3.7] Federally Enforceable Through Title V Permit
55. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455, 5.4.1] Federally Enforceable Through Title V Permit
56. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455, 5.4.3 & 5.4.4] Federally Enforceable Through Title V Permit
57. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455, 5.4.5] Federally Enforceable Through Title V Permit
58. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455, 5.5.1 & 5.5.2] Federally Enforceable Through Title V Permit
59. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455, 6.1.2 & 6.1.4] Federally Enforceable Through Title V Permit
60. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455, 6.2.1] Federally Enforceable Through Title V Permit

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61. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455, 6.2.3] Federally Enforceable Through Title V Permit
62. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455, 6.3.1] Federally Enforceable Through Title V Permit
63. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455 6.3.2] Federally Enforceable Through Title V Permit
64. Copies of all records shall be retained for a minimum of five (5) years after the date of an entry. Such records shall be made available to the APCO, ARB, or US EPA upon request. [District Rule 4455, 6.2.2, 6.2.3 & 6.2.4] Federally Enforceable Through Title V Permit
65. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455, 6.4] Federally Enforceable Through Title V Permit
66. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455, 6.4.1] Federally Enforceable Through Title V Permit
67. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455, 6.4.2] Federally Enforceable Through Title V Permit
68. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455, 6.4.3] Federally Enforceable Through Title V Permit
69. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455, 6.4.4] Federally Enforceable Through Title V Permit
70. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455, 6.4.5] Federally Enforceable Through Title V Permit

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71. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4454, 4.0] Federally Enforceable Through Title V Permit
72. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGG. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484. [40 CFR 60.592(c)] Federally Enforceable Through Title V Permit
73. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b), except as provided in 40 CFR 60.482-1(c) and 40 CFR 60.482-2(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 10,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2(a) and (b)] Federally Enforceable Through Title V Permit
74. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2(c)] Federally Enforceable Through Title V Permit
75. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2(a) provided the requirements specified in 40 CFR 60.482-2(d)(1) through (6) are met. [40 CFR 60.482(d)] Federally Enforceable Through Title V Permit
76. Any PLLS that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2(e)(1), (2), and (3). [40 CFR 60.482-2(e)] Federally Enforceable Through Title V Permit
77. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10, it is exempt from the requirements of 40 CFR 60.482-2(a) through (e). [40 CFR 60.482-2(f)] Federally Enforceable Through Title V Permit
78. Any pump in PLLS that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2(a) and 40 CFR 60.482-2(d)(4) through (6) if: 1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2(c) if a leak is detected. [40 CFR 60.482-2(g)] Federally Enforceable Through Title V Permit
79. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2(h)] Federally Enforceable Through Title V Permit
80. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(a)] Federally Enforceable Through Title V Permit

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81. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(b)] Federally Enforceable Through Title V Permit
82. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10 is exempted from the requirements of 40 CFR 60.482-4(a) and (b). [40 CFR 60.482-4(c)] Federally Enforceable Through Title V Permit
83. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9. [40 CFR 60.482-4(d)] Federally Enforceable Through Title V Permit
84. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5(b)(1), (2), (3), and (4). [40 CFR 60.482-5(a), (b), and (c)] Federally Enforceable Through Title V Permit
85. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6(a) and (c)] Federally Enforceable Through Title V Permit
86. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6(b)] Federally Enforceable Through Title V Permit
87. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6(a), (b) and (c). [40 CFR 60.482-6(d)] Federally Enforceable Through Title V Permit
88. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6(a) through (c) are exempt from the requirements of 40 CFR 60.482-6(a) through (c). [40 CFR 60.482-6(e)] Federally Enforceable Through Title V Permit
89. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b) and shall comply with 40 CFR 60.482-7(b) through (e), except as provided in 40 CFR 60.482-7(f), (g), and (h), 40 CFR 60.483-1, 40 CFR 60.483-2, and 40 CFR 60.482-1(c). A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-7(a) and (b)] Federally Enforceable Through Title V Permit
90. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7(c)] Federally Enforceable Through Title V Permit
91. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7(d) and (e)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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92. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7(a) if the valve meets the requirements specified in 40 CFR 60.482-7(f)(1), (2), and (3). [40 CFR 60.482-7(f)] Federally Enforceable Through Title V Permit
93. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7(g)] Federally Enforceable Through Title V Permit
94. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 40 CFR 60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor; and 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7(h)] Federally Enforceable Through Title V Permit
95. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1 and 60.483-2. [40 CFR 60.592(b)] Federally Enforceable Through Title V Permit
96. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485(b) and shall comply with the requirements of 40 CFR 60.482-8(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8(a) and (b)] Federally Enforceable Through Title V Permit
97. When a leak is detected in pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7(e). [40 CFR 60.482-8(c) and (d)] Federally Enforceable Through Title V Permit
98. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10(b)] Federally Enforceable Through Title V Permit
99. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10(c)] Federally Enforceable Through Title V Permit
100. Flares used to comply with Subpart GGG shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10(d)] Federally Enforceable Through Title V Permit
101. Owners or operators of control devices used to comply with the provisions of Subpart GGG shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10(e)] Federally Enforceable Through Title V Permit

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102. Except as provided in 40 CFR 60.482-10(i) through (k), each closed vent system used to comply with the provisions of Subpart GGG shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10(f) and (g)] Federally Enforceable Through Title V Permit
103. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10(h)] Federally Enforceable Through Title V Permit
104. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2). [40 CFR 60.482-10(i)] Federally Enforceable Through Title V Permit
105. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10 (j)(1) and (j)(2). [40 CFR 60.482-10(j)] Federally Enforceable Through Title V Permit
106. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(k)(1) through (k)(3). [40 CFR 60.482-10(k)] Federally Enforceable Through Title V Permit
107. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486(c); 4) For each inspection conducted in accordance with 40 CFR 60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10(l)] Federally Enforceable Through Title V Permit
108. Closed vent systems and control devices used to comply with provisions Subpart GGG shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10(m)] Federally Enforceable Through Title V Permit
109. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485, except as provided in 40 CFR 60.8(b). [40 CFR 60.485(a)] Federally Enforceable Through Title V Permit
110. The owner or operator shall determine compliance with the standards in 40 CFR 60.482, 60.483, and 60.484 as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [40 CFR 60.485(b)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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111. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows: 1) The requirements of 40 CFR 60.485(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485(c)] Federally Enforceable Through Title V Permit
112. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485(d)] Federally Enforceable Through Title V Permit
113. The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 degrees C (1.2 in. H₂O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485(e)] Federally Enforceable Through Title V Permit
114. Samples used in conjunction with 40 CFR 60.485(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485(f)] Federally Enforceable Through Title V Permit
115. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485(g)] Federally Enforceable Through Title V Permit
116. An owner or operator of more than one affected facility subject to the provisions Subpart GGG may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486(a)] Federally Enforceable Through Title V Permit
117. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486(b)] Federally Enforceable Through Title V Permit
118. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number; 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) "Above 10,000" if the maximum instrument reading measured by the methods specified in 40 CFR 60.485(a) after each repair attempt is equal to or greater than 10,000 ppm; 5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486(c) and District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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119. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10 shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10(c), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5. [40 CFR 60.486(d)] Federally Enforceable Through Title V Permit
120. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGG; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with 60.482-4; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, and 60.482-7(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; and 5) A list of identification numbers for equipment in vacuum service. [40 CFR 60.486(e)] Federally Enforceable Through Title V Permit
121. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7(g) and (h) and to all pumps subject to the requirements of 40 CFR 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486(f)] Federally Enforceable Through Title V Permit
122. The following information shall be recorded for valves complying with 40 CFR 60.483-2: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486(g)] Federally Enforceable Through Title V Permit
123. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486(h)] Federally Enforceable Through Title V Permit
124. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486(i)] Federally Enforceable Through Title V Permit
125. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486(j)] Federally Enforceable Through Title V Permit
126. The provisions of 40 CFR 60.7 (b) and (d) do not apply to this unit because it is subject to Subpart GGG. [40 CFR 60.486(k)] Federally Enforceable Through Title V Permit

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127. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7(b) or 40 CFR 60.483-2, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2(b) and (d)(6)(i), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2(c)(1) and (d)(6)(ii), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3(g)(1), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487 (a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487(c)] Federally Enforceable Through Title V Permit
128. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1 and 60.483-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487(d)] Federally Enforceable Through Title V Permit
129. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGG except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487(e)] Federally Enforceable Through Title V Permit
130. The semiannual reporting requirements of 40 CFR 60.487(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487(f)] Federally Enforceable Through Title V Permit
131. Compressors are exempt from the standards of Subpart GGG if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593(b)] Federally Enforceable Through Title V Permit
132. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3 (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3 (a), (b), (c), (d), (e), and (h). [40 CFR 60.593(c)] Federally Enforceable Through Title V Permit
133. An owner or operator may use the following provision in addition to 40 CFR 60.485(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 95, or 96. [40 CFR 60.593(d)] Federally Enforceable Through Title V Permit
134. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2 to 40 CFR 60.482-10 if it is identified as required in 40 CFR 60.486(e)(5). [40 CFR 60.482-1(d)] Federally Enforceable Through Title V Permit

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135. The operator shall not burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H₂S) in excess of 0.10 gr/dscf (230 mg/dscm). [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit
136. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60.105(a)(3)] Federally Enforceable Through Title V Permit
137. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H₂S as measured by the H₂S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO₂ as measured by the SO₂ continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit
138. Operator shall determine compliance with the H₂S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit
139. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit
140. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit
141. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
142. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart GGG. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
143. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NO_x emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NO_x emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
144. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit
145. The operator shall be in compliance with the applicable requirement in Sections 5.4.1 of District Rule 4320 (Adopted 10/16/2008) no later than July 1, 2013. [District Rule 4320, 5.4.1] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-33-12-11

EXPIRATION DATE: 08/31/2016

SECTION: 27 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

CATALYTIC REFORMER #9 INCLUDING 4 REACTORS 9-R1, R2, R3 AND R4, 4 REFINERY FUEL GAS-FIRED HEATERS 38.5 MMBTU/HR 9-H1 AND 30.8 MMBTU/HR 9-H2 EACH WITH A CALLIDUS LOW NOX BURNER, 18.2 MMBTU/HR 9-H3 AND 9.2 MMBTU/HR 9-H4 EACH WITH A JOHN ZINK COOLSTAR LOW NOX BURNER, SEPARATOR 9-V3, DEPROPANIZER 9-V4, 10.1 MMBTU/HR REBOILER HEATER 9-H5 WITH A JOHN ZINK COOLSTAR LOW NOX BURNER, AND MISC PUMPS, PIPING, & VESSELS - AREA 1

PERMIT UNIT REQUIREMENTS

1. Fugitive volatile organic compound (VOC) emissions shall not exceed 26.3 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Leaks from valves, connectors, and other components (except pumps and compressor seals) associated with piping modifications to route hydrogen rich stream from Catalytic Reforming Unit # 9-D8 to CD Hydro Tech and subject to the provisions of Rule 4455 shall be defined as a VOC reading in excess of 100 ppmv above background on a portable hydrocarbon detection instrument calibrated with methane per EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Components shall be screened and leak rate shall be measured in accordance with the frequency of inspection specified in Rule 4455 as applicable. [District Rule] Federally Enforceable Through Title V Permit
5. Permittee shall meet all applicable requirements of NSPS Subparts A and J. [District Rule 4001] Federally Enforceable Through Title V Permit
6. Except during startup and shutdown, heaters 9H1 - 9H4 (common stack) and 9H5 emission rates shall not exceed any of the following: NOx (as NO2): 0.036 lb/MMBtu or 30 ppmvd @ 3% O2, CO: 400 ppmvd @ 3% O2, VOC: 0.0055 lb/MMBtu, PM10: 0.0076 lb/MMBtu, or SOx (as SO2): 0.0286 lb/MMBtu. [District Rules 2201, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
7. Emission rates from heater 9H1 shall not exceed any of the following: PM10: 7.0 lb/day, SOx (as SO2): 26.4 lb/day, VOC: 1.7 lb/day, NOx (as NO2): 166.3 lb/day or 12,155 lb/year, or CO: 277.2 lb/day or 22,664 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emission rates from heater 9H2 shall not exceed any of the following: PM10: 5.6 lb/day, SOx (as SO2): 21.1 lb/day, VOC: 4.1 lb/day, NOx (as NO2): 133.1 lb/day or 9,709 lb/year, or CO: 221.8 lb/day or 18,131 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Emission rates from heater 9H3 shall not exceed any of the following: PM10: 3.3 lb/day, SOx (as SO2): 12.5 lb/day, VOC: 2.4 lb/day, NOx (as NO2): 78.6 lb/day or 5,731 lb/year, or CO: 131.0 lb/day or 10,714 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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10. Emission rates from heater 9H4 shall not exceed any of the following: PM10: 1.7 lb/day, SOx (as SO2): 6.3 lb/day, VOC: 1.2 lb/day, NOx (as NO2): 39.7 lb/day or 2,884 lb/year, or CO: 66.2 lb/day or 5,416 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emission rates from heater 9H5 shall not exceed any of the following: PM10: 1.8 lb/day, SOx (as SO2): 6.9 lb/day, VOC: 1.3 lb/day, NOx (as NO2): 43.6 lb/day or 3,176 lb/year, or CO: 72.7 lb/day or 5,946 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
12. For heaters 9H1, 9H2, 9H3, 9H4, & 9H5, compliance with annual CO emission rate shall be determined by using CO emission concentrations obtained during monthly monitoring as required in this permit, fuel use, fuel heating value; and stack gas flow rate. Records of calculated CO emissions shall be maintained for a period of five years and made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
13. For heaters 9H1, 9H2, 9H3, 9H4, & 9H5, duration of start-up and shutdown shall not exceed 2 hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
14. Permittee shall maintain records of duration of each start-up and shutdown for a period of five years and make such records readily available for District inspection upon request. [District Rules 2080, 4305, and 4306] Federally Enforceable Through Title V Permit
15. For each heater, the permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
16. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
18. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 2520, 9.4.2, 4305, and 4306] Federally Enforceable Through Title V Permit
19. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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20. Source testing to measure natural gas-combustion NO_x and CO emissions from each heater shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
22. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
23. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
24. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
26. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
27. Permittee shall maintain records of hhv of fuel burned and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
28. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit
29. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
30. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
31. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
32. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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33. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
34. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
35. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2, 4305, 6.2.1, and 4351, 6.2.1] Federally Enforceable Through Title V Permit
36. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 4801] Federally Enforceable Through Title V Permit
37. Nitrogen oxide (NO_x) emission concentrations in ppmv shall be referenced at dry stack gas conditions, and shall be calculated to 3.00 percent by volume stack gas oxygen and averaged over 60 minutes, and lb/MMBtu rates shall be calculated as lb NO₂/MMBtu of heat input (hhv). [District Rules 2520, 9.3.2, 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit
38. Nitrogen oxide (NO_x) emissions shall not exceed 140 lb/hr, calculated as NO₂. [District Rule 4301, 5.2.2] Federally Enforceable Through Title V Permit
39. Valves, threaded connections, and flanges shall not leak VOCs at a rate of more than three (3) drops per minute or leak in excess of 10,000 ppm above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking components of any component type does not exceed two (2) percent of the total number of components of that type. [District Rule 4451, 5.1.1 & 5.1.2] Federally Enforceable Through Title V Permit
40. Pressure relief valves (PRVs) shall not leak VOCs in excess of 10,000 ppm above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed two (2) percent. [District Rule 4451, 5.1.1 & 5.1.2] Federally Enforceable Through Title V Permit
41. Process drains shall not leak VOCs in excess of 10,000 ppm above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed two (2) percent. [District Rule 4451, 5.1.1 & 5.1.2] Federally Enforceable Through Title V Permit
42. The facility shall not use any valve, other than a valve on a product sampling line, a safety pressure relief valve, or a double block and bleeder valve, which is located at the end of a pipe or line containing VOCs unless such valve is sealed with a blind flange, plug, or cap; not including loading spouts and water drain valves. [District Rule 4451, 5.1.4] Federally Enforceable Through Title V Permit
43. Every leaking valve, flange, threaded connection, process drain and pressure relief valve shall be affixed with a record of inspection which shall bear a legible record of all inspections for at least a fifteen month period or coded with the records kept in a centralized location. [District Rule 4451, 5.1.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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44. All valves, threaded connections and PRVs handling VOCs shall be inspected for leakage with a portable hydrocarbon detection instrument in accordance with EPA Method 21 at least once every three (3) months. If less than two (2) percent of the components of any component type, except PRVs, are found to leak during each five (5) consecutive quarterly inspections, the inspection frequency for that component type may be changed from quarterly to annual. If any annual inspection shows that two (2) percent or more of all of a specific component type subject to the prohibitions of this rule are leaking, then quarterly inspections of that component type shall be resumed. [District Rule 4451, 5.2.1] Federally Enforceable Through Title V Permit
45. All flanges and process drains handling VOCs shall be inspected for leakage with a portable hydrocarbon detection instrument in accordance with EPA Method 21 at least once every 12 months. [District Rule 4451, 5.2.2] Federally Enforceable Through Title V Permit
46. Within three (3) days after any pressure relief valve vents to the atmosphere, the operator shall inspect with a portable hydrocarbon detection instrument any such PRV and shall repair any leak. The inspection shall be accomplished by sampling for vapors with a portable hydrocarbon detection instrument and by visual examination for indication of liquid leakage. [District Rule 4451, 5.2.3 & 5.2.4] Federally Enforceable Through Title V Permit
47. Any leaking valve, PRV, threaded connection, flange and process drain shall be identified by affixing a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until repair and reinspection documents compliance with the requirements of Rule 4451 (Amended December 17, 1992). [District Rule 4451, 5.2.5] Federally Enforceable Through Title V Permit
48. Each leak detected shall be recorded on the inspection record along with the date of inspection, component identification number, actual instrument reading, and the inspector's initials. [District Rule 4451, 5.2.6] Federally Enforceable Through Title V Permit
49. Within 15 days after detection any valve, pressure relief valve, flange, threaded connection, or process drain found to leak shall be repaired or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25. [District Rule 4451, 5.3.1] Federally Enforceable Through Title V Permit
50. If a valve, pressure relief valve, flange, threaded connection, or process drain is found to leak and cannot be repaired to a no-leak condition without requiring the shutdown of essential refinery operations, the following repair schedule shall apply: (a) If the leak rate is less than ten (10) drops per minute the APCO shall be notified of the expected date of repair, not to exceed one (1) year or the date of the next process unit turnaround whichever is less for each valve, pressure relief valve, flange, threaded connection, and process drain, and the actual date of repair for each valve, pressure relief valve, flange, threaded connection, and process drain. (b) If the leak rate is greater than nine (9) drops per minute or 10,000 ppm measured one (1) centimeter from the source, the APCO shall be notified of an emergency repair, within 15 days after detection, to reduce the leak to less than ten (10) drops per minute or 10,000 ppm as methane measured one (1) centimeter from the source, or the venting, within 30 days after detection, of the emission to a flare or vapor control system that satisfies the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25, or a demonstration, with 30 days after detection, that the repair schedules are infeasible. The demonstration shall include documentation that the component is an essential device and that no vapor control device that satisfies the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 exists. (c) Repair an essential device to eliminate the leak during the next process unit shutdown, but in no case later than one (1) year from the date of the original leak detection. [District Rule 4451, 5.3.2] Federally Enforceable Through Title V Permit
51. Analysis of halogenated exempt compounds shall be by ARB Method 422. [District Rule 4451, 6.3.1] Federally Enforceable Through Title V Permit
52. Efficiency of VOC destruction device shall be measured by EPA Method 25, 25a, or 25b, as applicable. [District Rule 4451, 6.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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53. The TVP of organic liquids, including light crude and petroleum distillates, shall be measured using Reid vapor pressure ASTM Method No. D-323 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 1000F, TVP may be determined by Reid Vapor pressure at 1000F and ARB approved calculations. Organic liquids listed in Rule 4451 (Amended December 17, 1992), Table 1 shall be deemed to be in compliance with the appropriate vapor pressure limits for the material, provided actual operating temperature does not exceed the corresponding maximum temperature listed. [District Rule 4451, 6.3.3] Federally Enforceable Through Title V Permit
54. Copies of the inspection log shall be retained by the operator for a minimum of five (5) years after the date of an entry and made available upon request to District personnel. [District Rules 4451, 6.2.2, 6.2.3, and 2520, 9.4.2] Federally Enforceable Through Title V Permit
55. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall be inspected for leaks with a portable hydrocarbon detection instrument in accordance with EPA Method 21 at least once every three (3) months. [District Rule 4452, 5.1.1] Federally Enforceable Through Title V Permit
56. Any pump shall be visually inspected weekly. Whenever volatile organic liquids are observed dripping from a pump seal, the seal shall be checked within three (3) day with a portable hydrocarbon detection instrument in accordance with EPA Method 21 to determine if a leak is present or the drippage stopped with the same time frame. [District Rule 4452, 5.1.2] Federally Enforceable Through Title V Permit
57. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 10,000 ppm above background when measured at a distance of one (1) centimeter from the potential source with an instrument calibrated with methane or the drip liquid VOCs at a rate of more than three (3) drops per minute. [District Rule 4452, 5.1.3] Federally Enforceable Through Title V Permit
58. Any person operating a pump or compressor which handles a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors which is leaking shall repair the leaking device within 15 calendar days. If the leaking device is essential and cannot be repaired within 15 days after detection, one (1) of the following actions shall be taken: (a) replace the leaking device and inspect for leaks within three days after detection, (b) vent emissions to vapor recovery device that is at least 94 percent efficient as measured by EPA Method 25, or to a flare that satisfies the requirements of 40 CFR 60.18, or (c) repair the essential device to eliminate the leak during the next process unit shutdown, but in no case later than one (1) year from the date of the original leak detection. [District Rule 4452, 5.2.1] Federally Enforceable Through Title V Permit
59. A readily visible identification in the form of a weather-proof tag shall be attached to any pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors which leaks. Pumps or compressors which handle a VOC, or any associated seal fluid systems which circulates a fluid through or between seals on process pumps or compressors, to be repaired at the next shutdown shall be tagged, marked or coded in a manner easily identifiable by District personnel. [District Rule 4452, 5.2.2] Federally Enforceable Through Title V Permit
60. Sampling of a seal shall be performed one (1) centimeter from the outer end of the shaft seal interface or at a distance of one (1) centimeter of any other point on the seal which could leak. [District Rule 4452, 6.3.1.2] Federally Enforceable Through Title V Permit
61. Sampling of atmospheric vents on pump and compressor fluid systems shall be measured in the plane of the opening of the vent at the centrad. [District Rule 4452, 6.3.1.3] Federally Enforceable Through Title V Permit
62. Each operator shall maintain an inspection log containing, at a minimum, the following: name, location, type of components, and description of any unit where leaking components are found; date of leak detection, emission level (ppm) of leak, and method of detection; date and emission level of recheck after leak is repaired; identification of leaks that cannot be repaired until next process unit turnaround; total number of components inspected, and total number and percentage of leaking components found for each component type. [District Rules 4451, 6.2.1, and 4452, 6.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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63. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4454, 4.0] Federally Enforceable Through Title V Permit
64. The operator shall not burn in any fuel gas combustion device any fuel that contains hydrogen sulfide (H₂S) in excess of 0.1 gr/dscf (230 mg/dscm). [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit
65. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit
66. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H₂S as measured by the H₂S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO₂ as measured by the SO₂ continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit
67. Operator shall determine compliance with the H₂S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit
68. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit
69. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit
70. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
71. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4451 (Amended December 17, 1992). A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
72. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4452 (Amended December 17, 1992). A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
73. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NO_x emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NO_x emission limit listed in Rule 4320. [District Rule 4320]
74. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-33-13-24

EXPIRATION DATE: 08/31/2016

SECTION: 27 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

MILD HYDROCRACKER #14 INCLUDING 50 MMBTU/HR GAS FIRED CHARGE HEATER 14-H1, 40 MMBTU/HR GAS FIRED FEED HEATER 14-H2, REACTOR 14-R1, 4 SEPARATORS 14-04/5, V619, FRACTIONATOR 14-V1, DIESEL STRIPPER 14-V4 AND MISC PUMPS, HEAT EXCHANGERS, PIPING AND VESSELS - AREA 1

PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line to Heater 14-H2 shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating Heater 14-H2 as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of Heater 14-H2, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of Heater 14-H2, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that Heater 14-H2 is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Permittee shall comply with applicable requirements of Rule 4001 NSPS Subparts A, J, and GGG. [District Rule 4001] Federally Enforceable Through Title V Permit
8. Sour gas shall discharge only to amine treater or sulfur recovery plant, except that sour gas may be discharged to the flare under emergency or upset conditions as provided under Rules 1100 (Breakdown Conditions) and 4001 (NSPS Subparts A and J). [District Rule 2201] Federally Enforceable Through Title V Permit
9. Heater 14-H1 shall be equipped with eight (8) - 6.25 MMBtu/hr John Zink COOLstar-12M Low NOx burners or equivalent burners. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Heater 14-H2 shall be equipped with four (4) - 10 MMBtu/hr rated John Zink COOLstar-15M Low NOx burners or equivalent burners. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Sulfur content (as H₂S) of fuel gas, natural gas or blended gas supplied to heaters 14H1 and 14H2 shall not exceed 100 ppmv (three hour rolling average). [District Rule 2201 and 4001] Federally Enforceable Through Title V Permit
12. Emission rate from heater 14H1 shall not exceed any of the following PM10: 0.075 lb/MMBtu, NOx (as NO₂): 30 ppmv @ 3% O₂, VOC: 0.005 lb/MMBtu, or CO: 240 ppmv @ 3% O₂. [District Rule 2201, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

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13. Emission rate from heater 14H2 shall not exceed any of the following VOC: 0.0028 lb/MMBtu; NO_x (as NO₂): 0.036 lb/MMBtu and CO: 100 ppmv @ 3% O₂. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The permittee shall monitor and record heaters 14H1's and 14H2's stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
15. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
17. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
18. Source testing for NO_x and CO emission limits shall be conducted not less than once every 12 months, except as provided below. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
19. Source testing for NO_x and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
20. If permittee fails any compliance demonstration for NO_x and CO emission limits when testing not less than once every 36 months, compliance with NO_x and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
21. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NO_x and CO source testing requirement. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
22. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
23. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

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24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer; or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306 (amended October 16, 2008). [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
26. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
27. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
28. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
29. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
30. Permittee shall maintain a record of the sulfur content (as H₂S) of the fuel gas, natural gas and blended gas. [District Rule 2201] Federally Enforceable Through Title V Permit
31. Permittee shall maintain records of hhv of fuel burned and cumulative annual fuel use. [District Rules 1070 and 2520] Federally Enforceable Through Title V Permit
32. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NO_x emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NO_x emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
33. The following conditions must be met for representative unit(s) to be used to test for NO_x limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
34. All units in a group for which representative units are source for NO_x emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
35. All units in a group for which representative units are source tested for NO_x emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
36. The number of representative units source tested for NO_x emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

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37. The portable analyzer shall be calibrated prior to each use with a two-point calibration method (zero and span). Calibration shall be performed with certified calibration gases. [District Rule 2520] Federally Enforceable Through Title V Permit
38. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (amended December 16, 1993), of 3 thirty-minute test runs for NO_x and CO. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
39. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
40. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520] Federally Enforceable Through Title V Permit
41. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr. [District Rules 4201 and 4301] Federally Enforceable Through Title V Permit
42. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520 and District Rule 4301] Federally Enforceable Through Title V Permit
43. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520] Federally Enforceable Through Title V Permit
44. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520] Federally Enforceable Through Title V Permit
45. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520] Federally Enforceable Through Title V Permit
46. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
47. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 4801] Federally Enforceable Through Title V Permit
48. Nitrogen oxide (NO_x) emissions shall not exceed 140 lb/hr, calculated as NO₂. [District Rule 4301] Federally Enforceable Through Title V Permit

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49. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rule 2201 and 4455] Federally Enforceable Through Title V Permit
50. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455] Federally Enforceable Through Title V Permit
51. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit
52. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit
53. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit
54. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit
55. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit
56. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455] Federally Enforceable Through Title V Permit
57. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit

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58. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455] Federally Enforceable Through Title V Permit
59. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455] Federally Enforceable Through Title V Permit
60. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit
61. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit
62. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455] Federally Enforceable Through Title V Permit
63. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit
64. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit
65. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit
66. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit
67. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455] Federally Enforceable Through Title V Permit

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68. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455] Federally Enforceable Through Title V Permit
69. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455] Federally Enforceable Through Title V Permit
70. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455] Federally Enforceable Through Title V Permit
71. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455] Federally Enforceable Through Title V Permit
72. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455] Federally Enforceable Through Title V Permit
73. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455] Federally Enforceable Through Title V Permit
74. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455] Federally Enforceable Through Title V Permit

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75. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455] Federally Enforceable Through Title V Permit
76. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455] Federally Enforceable Through Title V Permit
77. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455] Federally Enforceable Through Title V Permit
78. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455] Federally Enforceable Through Title V Permit
79. Copies of all records shall be retained for a minimum of five (5) years after the date of an entry. Such records shall be made available to the APCO, ARB, or US EPA upon request. [District Rule 4455] Federally Enforceable Through Title V Permit
80. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455] Federally Enforceable Through Title V Permit
81. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455] Federally Enforceable Through Title V Permit
82. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455] Federally Enforceable Through Title V Permit
83. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455] Federally Enforceable Through Title V Permit

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84. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455] Federally Enforceable Through Title V Permit
85. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455] Federally Enforceable Through Title V Permit
86. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4454] Federally Enforceable Through Title V Permit
87. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGG. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484. [40 CFR 60.592(c)] Federally Enforceable Through Title V Permit
88. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b), except as provided in 40 CFR 60.482-1(c) and 40 CFR 60.482-2(d), (c), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 10,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2(a) and (b)] Federally Enforceable Through Title V Permit
89. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2(c)] Federally Enforceable Through Title V Permit
90. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2(a) provided the requirements specified in 40 CFR 60.482-2(d)(1) through (6) are met. [40 CFR 60.482(d)] Federally Enforceable Through Title V Permit
91. Any PLLS that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2(e)(1), (2), and (3). [40 CFR 60.482-2(e)] Federally Enforceable Through Title V Permit
92. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10, it is exempt from the requirements of 40 CFR 60.482-2(a) through (e). [40 CFR 60.482-2(f)] Federally Enforceable Through Title V Permit
93. Any pump in PLLS that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2(a) and 40 CFR 60.482-2(d)(4) through (6) if: 1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2(c) if a leak is detected. [40 CFR 60.482-2(g)] Federally Enforceable Through Title V Permit

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94. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2(h)] Federally Enforceable Through Title V Permit
95. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(a)] Federally Enforceable Through Title V Permit
96. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(b)] Federally Enforceable Through Title V Permit
97. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10 is exempt from the requirements of 40 CFR 60.482-4(a) and (b). [40 CFR 60.482-4(c)] Federally Enforceable Through Title V Permit
98. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9. [40 CFR 60.482-4(d)] Federally Enforceable Through Title V Permit
99. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5(b)(1), (2), (3), and (4). [40 CFR 60.482-5(a), (b), and (c)] Federally Enforceable Through Title V Permit
100. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6(a) and (c)] Federally Enforceable Through Title V Permit
101. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6(b)] Federally Enforceable Through Title V Permit
102. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6(a), (b) and (c). [40 CFR 60.482-6(d)] Federally Enforceable Through Title V Permit
103. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6(a) through (c) are exempt from the requirements of 40 CFR 60.482-6(a) through (c). [40 CFR 60.482-6(e)] Federally Enforceable Through Title V Permit
104. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b) and shall comply with 40 CFR 60.482-7(b) through (e), except as provided in 40 CFR 60.482-7(f), (g), and (h), 40 CFR 60.483-1, 40 CFR 60.483-2, and 40 CFR 60.482-1(c). A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-7(a) and (b)] Federally Enforceable Through Title V Permit

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105. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7(c)] Federally Enforceable Through Title V Permit
106. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7(d) and (e)] Federally Enforceable Through Title V Permit
107. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7(a) if the valve meets the requirements specified in 40 CFR 60.482-7(f)(1), (2), and (3). [40 CFR 60.482-7(f)] Federally Enforceable Through Title V Permit
108. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7(g)] Federally Enforceable Through Title V Permit
109. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 40 CFR 60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor; and 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7(h)] Federally Enforceable Through Title V Permit
110. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1 and 60.483-2. [40 CFR 60.592(b)] Federally Enforceable Through Title V Permit
111. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485(b) and shall comply with the requirements of 40 CFR 60.482-8(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8(a) and (b)] Federally Enforceable Through Title V Permit
112. When a leak is detected in pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7(e). [40 CFR 60.482-8(c) and (d)] Federally Enforceable Through Title V Permit
113. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10(b)] Federally Enforceable Through Title V Permit

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114. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10(c)] Federally Enforceable Through Title V Permit
115. Flares used to comply with Subpart GGG shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10(d)] Federally Enforceable Through Title V Permit
116. Owners or operators of control devices used to comply with the provisions of Subpart GGG shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10(e)] Federally Enforceable Through Title V Permit
117. Except as provided in 40 CFR 60.482-10(i) through (k), each closed vent system used to comply with the provisions of Subpart GGG shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10(f) and (g)] Federally Enforceable Through Title V Permit
118. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10(h)] Federally Enforceable Through Title V Permit
119. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2). [40 CFR 60.482-10(i)] Federally Enforceable Through Title V Permit
120. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10 (j)(1) and (j)(2). [40 CFR 60.482-10(j)] Federally Enforceable Through Title V Permit
121. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(k)(1) through (k)(3). [40 CFR 60.482-10(k)] Federally Enforceable Through Title V Permit
122. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486(c); 4) For each inspection conducted in accordance with 40 CFR 60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10(l)] Federally Enforceable Through Title V Permit
123. Closed vent systems and control devices used to comply with provisions Subpart GGG shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10(m)] Federally Enforceable Through Title V Permit
124. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485, except as provided in 40 CFR 60.8(b). [40 CFR 60.485(a)] Federally Enforceable Through Title V Permit

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125. The owner or operator shall determine compliance with the standards in 40 CFR 60.482, 60.483, and 60.484 as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [40 CFR 60.485(b)] Federally Enforceable Through Title V Permit
126. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows: 1) The requirements of 40 CFR 60.485(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485(c)] Federally Enforceable Through Title V Permit
127. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485(d)] Federally Enforceable Through Title V Permit
128. The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 degrees C (1.2 in. H₂O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485(e)] Federally Enforceable Through Title V Permit
129. Samples used in conjunction with 40 CFR 60.485(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485(f)] Federally Enforceable Through Title V Permit
130. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485(g)] Federally Enforceable Through Title V Permit
131. An owner or operator of more than one affected facility subject to the provisions Subpart GGG may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486(a)] Federally Enforceable Through Title V Permit
132. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486(b)] Federally Enforceable Through Title V Permit

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133. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number; 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) "Above 10,000" if the maximum instrument reading measured by the methods specified in 40 CFR 60.485(a) after each repair attempt is equal to or greater than 10,000 ppm; 5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486(c) and District Rule 2520] Federally Enforceable Through Title V Permit
134. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10 shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5. [40 CFR 60.486(d)] Federally Enforceable Through Title V Permit
135. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGG; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 60.482-4; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, and 60.482-7(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; and 5) A list of identification numbers for equipment in vacuum service. [40 CFR 60.486(e)] Federally Enforceable Through Title V Permit
136. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7(g) and (h) and to all pumps subject to the requirements of 40 CFR 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486(f)] Federally Enforceable Through Title V Permit
137. The following information shall be recorded for valves complying with 40 CFR 60.483-2: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486(g)] Federally Enforceable Through Title V Permit
138. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486(h)] Federally Enforceable Through Title V Permit
139. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486(i)] Federally Enforceable Through Title V Permit

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140. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486(j)] Federally Enforceable Through Title V Permit
141. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart GGG. [District 40 CFR 60.486(k)] Federally Enforceable Through Title V Permit
142. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7(b) or 40 CFR 60.483-2, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2(b) and (d)(6)(i), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2(c)(1) and (d)(6)(ii), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3(g)(1), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487 (a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487(c)] Federally Enforceable Through Title V Permit
143. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1 and 60.483-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487(d)] Federally Enforceable Through Title V Permit
144. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGG except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487(c)] Federally Enforceable Through Title V Permit
145. The semiannual reporting requirements of 40 CFR 60.487(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487(f)] Federally Enforceable Through Title V Permit
146. Compressors are exempt from the standards of Subpart GGG if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593(b)] Federally Enforceable Through Title V Permit
147. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3 (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3 (a), (b), (c), (d), (e), and (h). [40 CFR 60.593(c)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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148. An owner or operator may use the following provision in addition to 40 CFR 60.485(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 95, or 96. [40 CFR 60.593(d)] Federally Enforceable Through Title V Permit
149. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2 to 40 CFR 60.482-10 if it is identified as required in 40 CFR 60.486(e)(5). [40 CFR 60.482-1(d)] Federally Enforceable Through Title V Permit
150. The operator shall not burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H₂S) in excess of 0.10 gr/dscf (230 mg/dscm) [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit
151. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit
152. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H₂S as measured by the H₂S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO₂ as measured by the SO₂ continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit
153. Operator shall determine compliance with the H₂S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit
154. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit
155. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit
156. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NO_x emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NO_x emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
157. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit
158. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, and 4306] Federally Enforceable Through Title V Permit
159. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart GGG. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
160. The operator shall be in compliance with the applicable requirement in Sections 5.4.1 of District Rule 4320 (Adopted 10/16/2008) no later than July 1, 2013. [District Rule 4320] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-33-49-6

EXPIRATION DATE: 08/31/2016

SECTION: 28 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

161.4 MMBTU/HR CRUDE UNIT #11 INCLUDING HEATERS 11-H11, 11-H12, AND 11-H13, AND TOPPING ASSEMBLY - AREA 2

PERMIT UNIT REQUIREMENTS

1. Heaters 11-H11 and 11-H12 shall not be operated for any reason until necessary retrofits are made to comply with the applicable requirements of District Rules 4305, 4306, 4320, and 4351. [District Rules 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit
2. No modifications to heaters 11-H11 and 11-H12 shall be performed without an Authority to Construct for that modification(s), except for changes specified in the condition below. [District Rules 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit
3. The fuel supply line(s) shall be physically disconnected from heaters 11-H11 and 11-H12. [District Rules 4305, 4306, 4320, and 4351] Federally Enforceable Through Title V Permit
4. Heaters 11-H11 and 11-H12 shall not be operated unless the owner or operator applies to modify the Title V permit to address the requirements of District Rule 2520, 9.0 for this permit unit. [District Rule 2520, 9.0] Federally Enforceable Through Title V Permit
5. Permittee shall meet all applicable requirements of NSPS Subparts A and J. [NSPS 40 CFR Part 60, Subparts A & J] Federally Enforceable Through Title V Permit
6. Gas plant Heater 11-H13 is in service as part of hydro unit #27 S-33-349 as heater 27H-1. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
8. Spent caustics and waste liquids shall be disposed of in a manner preventing the creation of odors. [District Rule 4102]
9. Heat exchangers utilizing cooling water shall be maintained to prevent volatile organic compound emissions from cooling towers. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Heaters 11-H11 and 11-H12 emission rates shall not exceed NO_x (as NO₂): 0.036 lb/MMBtu or 30 ppmv @ 3% O₂, or CO: 400 ppmv @ 3% O₂. [District Rules 4305 and 4351] Federally Enforceable Through Title V Permit
11. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of heaters 11-H11 or 11-H12. [District Rules 4305 and 4351] Federally Enforceable Through Title V Permit
12. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081(amended December 16, 1993), of 3 thirty-minute test runs for NO_x and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
13. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(Last Amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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14. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
15. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
16. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
17. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
18. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
19. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
20. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
21. Nitrogen oxide (NO_x) emissions shall not exceed 140 lb/hr, calculated as NO₂. [District Rules 4301, 5.2.2] Federally Enforceable Through Title V Permit
22. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455, 4.1 & 4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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23. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455, 5.1.1] Federally Enforceable Through Title V Permit
24. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455, 5.1.2] Federally Enforceable Through Title V Permit
25. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455, 5.1.3.1] Federally Enforceable Through Title V Permit
26. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.1] Federally Enforceable Through Title V Permit
27. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.2] Federally Enforceable Through Title V Permit
28. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455, 5.1.3.2.3] Federally Enforceable Through Title V Permit
29. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455, 5.1.4] Federally Enforceable Through Title V Permit
30. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455, 5.2.1 & 5.2.2; 40 CFR 60.482-2(a), (b) and (c); 40 CFR 60.482-7(d) and (e)] Federally Enforceable Through Title V Permit
31. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455, 5.2.3, 5.2.4, 5.2.5, 5.2.6 & 5.2.7; 40 CFR 60.482-2(a), (b) and (g); 40 CFR 60.482-7(a), (b), (g) and (h)] Federally Enforceable Through Title V Permit
32. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455, 5.2.8; 40 CFR 60.482-7] Federally Enforceable Through Title V Permit

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33. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455, 5.2.9 & 5.2.10] Federally Enforceable Through Title V Permit
34. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455, 5.2.11 and 40 CFR 60.482-4(b)] Federally Enforceable Through Title V Permit
35. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455, 5.2.12] Federally Enforceable Through Title V Permit
36. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455, 5.2.13] Federally Enforceable Through Title V Permit
37. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455, 5.3.1, 5.3.2 & 5.3.3; 40 CFR 60.486(b)] Federally Enforceable Through Title V Permit
38. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455, 5.3.4] Federally Enforceable Through Title V Permit
39. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455, 5.3.5] Federally Enforceable Through Title V Permit
40. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455, 5.3.6] Federally Enforceable Through Title V Permit
41. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455, 5.3.7] Federally Enforceable Through Title V Permit

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42. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455, 5.4.1] Federally Enforceable Through Title V Permit
43. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455, 5.4.3 & 5.4.4] Federally Enforceable Through Title V Permit
44. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455, 5.4.5] Federally Enforceable Through Title V Permit
45. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455, 5.5.1 & 5.5.2] Federally Enforceable Through Title V Permit
46. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455, 6.1.2 & 6.1.4] Federally Enforceable Through Title V Permit
47. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455, 6.2.1; 40 CFR 60.486(c)] Federally Enforceable Through Title V Permit
48. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455, 6.2.3] Federally Enforceable Through Title V Permit
49. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455, 6.3.1] Federally Enforceable Through Title V Permit

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50. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455 6.3.2] Federally Enforceable Through Title V Permit
51. Copies of all records shall be retained for a minimum of five (5) years after the date of an entry. Such records shall be made available to the APCO, ARB, or US EPA upon request. [District Rule 4455, 6.2.2, 6.2.3 & 6.2.4] Federally Enforceable Through Title V Permit
52. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455, 6.4] Federally Enforceable Through Title V Permit
53. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455, 6.4.1; 40 CFR 60.485(b)] Federally Enforceable Through Title V Permit
54. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455, 6.4.2] Federally Enforceable Through Title V Permit
55. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455, 6.4.3] Federally Enforceable Through Title V Permit
56. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455, 6.4.4] Federally Enforceable Through Title V Permit
57. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455, 6.4.5] Federally Enforceable Through Title V Permit
58. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4454, 4.0] Federally Enforceable Through Title V Permit
59. The operator shall not burn in any fuel gas combustion device any fuel that contains hydrogen sulfide (H₂S) in excess of 0.1 gr/dscf (230 mg/dsem) [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit
60. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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61. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H₂S as measured by the H₂S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO₂ as measured by the SO₂ continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit
62. Operator shall determine compliance with the H₂S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit
63. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit
64. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit
65. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-33-52-17

EXPIRATION DATE: 08/31/2016

SECTION: 28 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

86.8 MMBTU/HR CATALYTIC REFORMING UNIT #26 INCLUDING 6 HEATERS, HYDROSULFURIZATION ASSEMBLY; CATALYTIC ASSEMBLY, DEPENTANIZER SERVICE TOWER (26-V13), REBOILER STEAM CONDENSATE BALANCE DRUM (26-D31), 2 FEED/BOTTOMS EXCHANGERS (26-E45 A/B), 2 OVERHEAD CONDENSERS (26-E46 A/B), DISTILLATE COOLER (26-E47), 2 BOTTOMS PUMPS (26-P37 A/B), AND 2 REFLUX PUMPS (26 P38 A/B)

PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel lines to Heater 26-H13 or 26-H15 shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating Heater 26-H13 or 26-H15 as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of Heater 26-H13 or 26-H15, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of Heater 26-H13 or 26-H15, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that Heater 26-H13 or 26-H15 is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. Heaters 26H12 and 26H17 shall not be operated for any reason until necessary retrofits are made to comply with the applicable requirements of District Rules 4305, 4306 and 4351. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
8. No modifications to heaters 26H12 and 26H17 shall be performed without an Authority to Construct for that modification(s), except for changes specified in the condition below. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
9. The fuel supply line(s) shall be physically disconnected from heaters 26H12 and 26H17. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
10. Fuel gas sulfur content (as H₂S) shall not exceed 0.10 gr/dscf (160 ppmv) over a three-hour rolling average and shall be continuously monitored and recorded. [NSPS 40 CFR Part 60, Subpart J] Federally Enforceable Through Title V Permit
11. Permittee shall meet all applicable requirements of NSPS Subparts A, J, and GGG. [NSPS 40 CFR Part 60, Subparts A, J, and GGG] Federally Enforceable Through Title V Permit
12. Spent caustics and waste liquids shall be disposed of in a manner preventing the creation of odors. [District Rule 4102]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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13. Leaks from valves and connectors associated with depentanizer (26-V13) fractionation trays, reboiler steam condensate balance drum (26-D31), 2 feed/bottoms exchangers (26-E45 A/B), 2 overhead condensers (26-E46 A/B), distillate cooler (26-E47), 2 bottoms pumps (26-P37 A/B), 2 reflux pumps (26 P38 A/B) and subject to the provisions of Rule 4455 shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured one (1) cm from potential source. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Leaks from seals on pumps 26-P37A/B and 26-P38A/B and subject to the provisions of Rule 4455 shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured one (1) cm from potential source. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Fugitive volatile organic compound (VOC) emissions, as determined by annual component count and District approved emission factors, shall not exceed 761.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Heaters 26H12 and 26H17 emission rates shall not exceed NO_x (as NO₂): 0.18 lb/MMBtu or 147 ppmvd @ 3% O₂, and CO: 400 ppmvd @ 3% O₂. Emission limits are on a one hour average. [District Rule 2201, 4305, and 4351] Federally Enforceable Through Title V Permit
17. Emissions from heaters 26H11A/B, 26H13 and 26H15 shall not exceed any of the following limits: 0.0364 lb/MMBtu or 30 ppmvd NO_x @ 3% O₂, 0.024 lb-SO_x/MMBtu, 0.0076 lb-PM10/MMBtu, 400 ppmvd CO @ 3% O₂ or 0.296 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
18. For heaters 26H11A/B, 26H13 and 26H15, the permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
19. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
21. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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22. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
23. Source testing for the indicated emission limits shall be performed within 60 days of recommencing operation of heaters 26H12 or 26H17. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
24. Source testing to measure NOx and CO emissions from heaters 26H11A/B, 26H13 and 26H15 while fired on natural gas shall be conducted within 60 days of initial start-up. [District Rule 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
25. Source testing to measure NOx and CO emissions from heaters 26H11A/B, 26H13 and 26H15 while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
26. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
27. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
28. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
29. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
30. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
31. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
32. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
33. Compliance with fugitive VOC emission limit shall be demonstrated by annual component count and District approved emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
34. Permittee shall maintain records of hhv of fuel burned and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
35. Heaters 26H12 and 26H17 shall not be operated unless the owner or operator applies to modify the Title V permit to address the requirements of District Rule 2520, section 9.0 for this permit unit. [District Rule 2520] Federally Enforceable Through Title V Permit
36. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201 and 4301] Federally Enforceable Through Title V Permit
37. If permittee fails any compliance demonstration for NOx and CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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38. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NO_x and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NO_x emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
39. The following conditions must be met for representative unit(s) to be used to test for NO_x and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
40. All units in a group for which representative units are source for NO_x and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
41. All units in a group for which representative units are source tested for NO_x and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
42. The number of representative units source tested for NO_x and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 4306] Federally Enforceable Through Title V Permit
43. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (amended December 16, 1993), of 3 thirty-minute test runs for NO_x and CO. [District Rule 4306] Federally Enforceable Through Title V Permit
44. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
45. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520] Federally Enforceable Through Title V Permit
46. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520 and 4301] Federally Enforceable Through Title V Permit
47. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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48. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520] Federally Enforceable Through Title V Permit
49. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520] Federally Enforceable Through Title V Permit
50. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
51. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 4801] Federally Enforceable Through Title V Permit
52. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rule 4301] Federally Enforceable Through Title V Permit
53. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District Rule 2201 and District Rule 4455] Federally Enforceable Through Title V Permit
54. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455] Federally Enforceable Through Title V Permit
55. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455] Federally Enforceable Through Title V Permit
56. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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57. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit
58. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit
59. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455] Federally Enforceable Through Title V Permit
60. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455] Federally Enforceable Through Title V Permit
61. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455] Federally Enforceable Through Title V Permit
62. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455] Federally Enforceable Through Title V Permit
63. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455] Federally Enforceable Through Title V Permit
64. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455] Federally Enforceable Through Title V Permit
65. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455] Federally Enforceable Through Title V Permit
66. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455] Federally Enforceable Through Title V Permit
67. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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68. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit
69. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455] Federally Enforceable Through Title V Permit
70. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455] Federally Enforceable Through Title V Permit
71. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455] Federally Enforceable Through Title V Permit
72. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455] Federally Enforceable Through Title V Permit
73. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455] Federally Enforceable Through Title V Permit
74. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455] Federally Enforceable Through Title V Permit
75. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455] Federally Enforceable Through Title V Permit
76. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455] Federally Enforceable Through Title V Permit

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77. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455] Federally Enforceable Through Title V Permit
78. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455] Federally Enforceable Through Title V Permit
79. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455] Federally Enforceable Through Title V Permit
80. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455] Federally Enforceable Through Title V Permit
81. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455] Federally Enforceable Through Title V Permit
82. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455] Federally Enforceable Through Title V Permit
83. Copies of all records shall be retained for a minimum of five (5) years after the date of an entry. Such records shall be made available to the APCO, ARB, or US EPA upon request. [District Rule 4455] Federally Enforceable Through Title V Permit
84. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455] Federally Enforceable Through Title V Permit

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85. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455] Federally Enforceable Through Title V Permit
86. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455] Federally Enforceable Through Title V Permit
87. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455] Federally Enforceable Through Title V Permit
88. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455] Federally Enforceable Through Title V Permit
89. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455] Federally Enforceable Through Title V Permit
90. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4454] Federally Enforceable Through Title V Permit
91. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGG. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484. [40 CFR 60.592(c)] Federally Enforceable Through Title V Permit
92. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b), except as provided in 40 CFR 60.482-1(c) and 40 CFR 60.482-2(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 10,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2(a) and (b)] Federally Enforceable Through Title V Permit
93. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2(c)] Federally Enforceable Through Title V Permit
94. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2(a) provided the requirements specified in 40 CFR 60.482-2(d)(1) through (6) are met. [40 CFR 60.482(d)] Federally Enforceable Through Title V Permit
95. Any PLLS that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2(e)(1), (2), and (3). [40 CFR 60.482-2(e)] Federally Enforceable Through Title V Permit

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96. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10, it is exempt from the requirements of 40 CFR 60.482-2(a) through (e). [40 CFR 60.482-2(f)] Federally Enforceable Through Title V Permit
97. Any pump in PLLS that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2(a) and 40 CFR 60.482-2(d)(4) through (6) if: 1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2(c) if a leak is detected. [40 CFR 60.482-2(g)] Federally Enforceable Through Title V Permit
98. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2(h)] Federally Enforceable Through Title V Permit
99. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(a)] Federally Enforceable Through Title V Permit
100. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(b)] Federally Enforceable Through Title V Permit
101. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10 is exempted from the requirements of 40 CFR 60.482-4(a) and (b). [40 CFR 60.482-4(c)] Federally Enforceable Through Title V Permit
102. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9. [40 CFR 60.482-4(d)] Federally Enforceable Through Title V Permit
103. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5(b)(1), (2), (3), and (4). [40 CFR 60.482-5(a), (b), and (c)] Federally Enforceable Through Title V Permit
104. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6(a) and (c)] Federally Enforceable Through Title V Permit
105. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6(b)] Federally Enforceable Through Title V Permit
106. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6(a), (b) and (c). [40 CFR 60.482-6(d)] Federally Enforceable Through Title V Permit

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107. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6(a) through (c) are exempt from the requirements of 40 CFR 60.482-6(a) through (c). [40 CFR 60.482-6(e)] Federally Enforceable Through Title V Permit
108. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b) and shall comply with 40 CFR 60.482-7(b) through (e), except as provided in 40 CFR 60.482-7(f), (g), and (h); 40 CFR 60.483-1, 40 CFR 60.483-2, and 40 CFR 60.482-1(c). A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-7(a) and (b)] Federally Enforceable Through Title V Permit
109. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7(c)] Federally Enforceable Through Title V Permit
110. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7(d) and (e)] Federally Enforceable Through Title V Permit
111. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7(a) if the valve meets the requirements specified in 40 CFR 60.482-7(f)(1), (2), and (3). [40 CFR 60.482-7(f)] Federally Enforceable Through Title V Permit
112. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7(g)] Federally Enforceable Through Title V Permit
113. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 40 CFR 60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor; and 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7(h)] Federally Enforceable Through Title V Permit
114. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1 and 60.483-2. [40 CFR 60.592(b)] Federally Enforceable Through Title V Permit
115. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485(b) and shall comply with the requirements of 40 CFR 60.482-8(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8(a) and (b)] Federally Enforceable Through Title V Permit

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116. When a leak is detected in pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7(e). [40 CFR 60.482-8(c) and (d)] Federally Enforceable Through Title V Permit
117. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10(b)] Federally Enforceable Through Title V Permit
118. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10(c)] Federally Enforceable Through Title V Permit
119. Flares used to comply with Subpart GGG shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10(d)] Federally Enforceable Through Title V Permit
120. Owners or operators of control devices used to comply with the provisions of Subpart GGG shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10(e)] Federally Enforceable Through Title V Permit
121. Except as provided in 40 CFR 60.482-10(i) through (k), each closed vent system used to comply with the provisions of Subpart GGG shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10(f) and (g)] Federally Enforceable Through Title V Permit
122. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10(h)] Federally Enforceable Through Title V Permit
123. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2). [40 CFR 60.482-10(i)] Federally Enforceable Through Title V Permit
124. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(j)(1) and (j)(2). [40 CFR 60.482-10(j)] Federally Enforceable Through Title V Permit
125. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(k)(1) through (k)(3). [40 CFR 60.482-10(k)] Federally Enforceable Through Title V Permit

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126. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486(c); 4) For each inspection conducted in accordance with 40 CFR 60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10(l)] Federally Enforceable Through Title V Permit
127. Closed vent systems and control devices used to comply with provisions Subpart GGG shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10(m)] Federally Enforceable Through Title V Permit
128. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485, except as provided in 40 CFR 60.8(b). [40 CFR 60.485(a)] Federally Enforceable Through Title V Permit
129. The owner or operator shall determine compliance with the standards in 40 CFR 60.482, 60.483, and 60.484 as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [40 CFR 60.485(b)] Federally Enforceable Through Title V Permit
130. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows: 1) The requirements of 40 CFR 60.485(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485(c)] Federally Enforceable Through Title V Permit
131. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485(d)] Federally Enforceable Through Title V Permit
132. The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 degrees C (1.2 in. H₂O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485(e)] Federally Enforceable Through Title V Permit
133. Samples used in conjunction with 40 CFR 60.485(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485(f)] Federally Enforceable Through Title V Permit
134. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485(g)] Federally Enforceable Through Title V Permit

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135. An owner or operator of more than one affected facility subject to the provisions Subpart GGG may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486(a)] Federally Enforceable Through Title V Permit
136. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486(b)] Federally Enforceable Through Title V Permit
137. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number; 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) "Above 10,000" if the maximum instrument reading measured by the methods specified in 40 CFR 60.485(a) after each repair attempt is equal to or greater than 10,000 ppm; 5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486(c) and District Rule 2520] Federally Enforceable Through Title V Permit
138. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10 shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5. [40 CFR 60.486(d)] Federally Enforceable Through Title V Permit
139. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGG; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with [±] 60.482-4; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2(e), 60.482-3(i), [±] 60.482-4, and 60.482-7(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; and 5) A list of identification numbers for equipment in vacuum service. [40 CFR 60.486(e)] Federally Enforceable Through Title V Permit
140. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7(g) and (h) and to all pumps subject to the requirements of 40 CFR 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486(f)] Federally Enforceable Through Title V Permit
141. The following information shall be recorded for valves complying with 40 CFR 60.483-2: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486(g)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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142. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486(h)] Federally Enforceable Through Title V Permit
143. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486(i)] Federally Enforceable Through Title V Permit
144. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486(j)] Federally Enforceable Through Title V Permit
145. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart GGG. [District 40 CFR 60.486(k)] Federally Enforceable Through Title V Permit
146. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7(b) or 40 CFR 60.483-2, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2(b) and (d)(6)(i), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2(c)(1) and (d)(6)(ii), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3(g)(1), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487 (a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487(c)] Federally Enforceable Through Title V Permit
147. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1 and 60.483-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487(d)] Federally Enforceable Through Title V Permit
148. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGG except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487(e)] Federally Enforceable Through Title V Permit
149. The semiannual reporting requirements of 40 CFR 60.487(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487(f)] Federally Enforceable Through Title V Permit

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150. Compressors are exempt from the standards of Subpart GGG if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593(b)] Federally Enforceable Through Title V Permit
151. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3 (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3 (a), (b), (c), (d), (e), and (h). [40 CFR 60.593(c)] Federally Enforceable Through Title V Permit
152. An owner or operator may use the following provision in addition to 40 CFR 60.485(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 95, or 96. [40 CFR 60.593(d)] Federally Enforceable Through Title V Permit
153. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2 to 40 CFR 60.482-10 if it is identified as required in 40 CFR 60.486(e)(5). [40 CFR 60.482-1(d)] Federally Enforceable Through Title V Permit
154. The operator shall not burn in any fuel gas combustion device any fuel that contains hydrogen sulfide (H₂S) in excess of 0.1 gr/dscf (230 mg/dscm) [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit
155. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit
156. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H₂S as measured by the H₂S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO₂ as measured by the SO₂ continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit
157. Operator shall determine compliance with the H₂S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit
158. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit
159. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit
160. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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161. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart GGG. A permit shield is granted from this requirement. [District Rule 2520] Federally Enforceable Through Title V Permit
162. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
163. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit
164. The operator shall be in compliance with the applicable requirement in Sections 5.4.1 of District Rule 4320 (Adopted 10/16/2008) no later than July 1, 2013. [District Rule 4320] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-33-56-26

EXPIRATION DATE: 08/31/2016

SECTION: 28 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

HYDROCRACKER UNIT #21 INCLUDING 9 HEATERS, CATALYTIC ASSEMBLY, AND MISC AIR COOLERS, EXCHANGERS, DRUMS, AND PUMPS - AREA 2

PERMIT UNIT REQUIREMENTS

1. Hydrocracker unit shall include two 40.0 MMBtu/hr charge heaters (21H11 and 21H12), two 18.1 MMBtu/hr heaters (21H13 and 21H14), two 11.4 MMBtu/hr heaters (21H15 and 21H16), one 27.8 MMBtu/hr heater (21H17), one 34.6 MMBtu/hr heater (21H18), one 65.0 MMBtu/hr heater (21H20), catalytic assembly, miscellaneous air coolers, heat exchangers, drums, pumps, piping, and vessels. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Firing rate of heater 21H20 shall not exceed 65.0 MMBtu/hr. [District NSR Rule and 4306] Federally Enforceable Through Title V Permit
3. Continuous records of heater 21H20's firing rate, including volumetric fuel consumption rate (corrected for temperature) and hhv of fuel burned shall be maintained. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Except during startup and shutdown, heater 21H18 emission rates shall not exceed the following: NO_x (as NO₂) 0.036 lb/MMBtu or 30 ppmvd @ 3% O₂, CO: 0.075 lb/MMBtu or 100 ppmv @ 3% O₂, VOC: 0.005 lb/MMBtu, and PM₁₀: 0.014 lb/MMBtu. [District NSR Rule, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
5. Heater 21H20 emission rates shall not exceed NO_x (as NO₂): 0.036 lb/MMBtu or 30 ppmv @ 3% O₂, and CO: 400 ppmv @ 3% O₂. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
6. Except during startup and shutdown, heater 21H11 emission rates shall not exceed NO_x (as NO₂) 30 ppmvd @ 3% O₂, CO: 100 ppmvd @ 3% O₂, VOC: 0.003 lb/MMBtu, and PM₁₀: 0.014 lb/MMBtu. [District NSR Rule, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
7. Except during startup and shutdown, heater 21H12 emission rates shall not exceed any of the following: NO_x (as NO₂): 30 ppmv @ 3% O₂, CO: 100 ppmvd @ 3% O₂, VOC: 0.003 lb/MMBtu, PM₁₀: 0.014 lb/MMBtu, or SO_x (as SO₂): 0.0286 lb/MMBtu. [District NSR Rule, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
8. Except during startup and shutdown, heaters 21H13 through 21H17 emission rates shall not exceed: NO_x (as NO₂): 0.036 lb/MMBtu or 30 ppmvd @ 3% O₂, CO: 400 ppmvd @ 3% O₂, VOC: 0.0055 lb/MMBtu, PM₁₀: 0.0076 lb/MMBtu, or SO_x (as SO₂): 0.0286 lb/MMBtu. [District NSR Rule, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
9. Emission rates from heater 21H11 shall not exceed any of the following: PM₁₀: 13.4 lb/day, SO_x (as SO₂): 27.5 lb/day, VOC: 2.9 lb/day, NO_x (as NO₂): 34.6 lb/day, or CO: 72.0 lb/day [District NSR Rule] Federally Enforceable Through Title V Permit
10. Emission rates from heater 21H12 shall not exceed any of the following: PM₁₀: 13.4 lb/day, SO_x (as SO₂): 27.5 lb/day, VOC: 2.9 lb/day, NO_x (as NO₂): 34.6 lb/day, or CO: 72.0 lb/day [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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11. Emission rates from heater 21H13 shall not exceed any of the following: PM10: 3.3 lb/day, SOx (as SO2): 12.4 lb/day, VOC: 2.4 lb/day, NOx (as NO2): 36.9 lb/day or 5,694 lb/year, or CO: 130.3 lb/day or 10,655 lb/year. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Emission rates from heater 21H14 shall not exceed any of the following: PM10: 3.3 lb/day, SOx (as SO2): 12.4 lb/day, VOC: 2.4 lb/day, NOx (as NO2): 36.9 lb/day or 5,694 lb/year, or CO: 130.3 lb/day or 10,655 lb/year. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Emission rates from heater 21H15 shall not exceed any of the following: PM10: 2.1 lb/day, SOx (as SO2): 7.8 lb/day, VOC: 1.5 lb/day, NOx (as NO2): 23.3 lb/day or 3,577 lb/year, or CO: 82.1 lb/day or 6,711 lb/year. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Emission rates from heater 21H16 shall not exceed any of the following: PM10: 2.1 lb/day, SOx (as SO2): 7.8 lb/day, VOC: 1.5 lb/day, NOx (as NO2): 23.3 lb/day or 3,577 lb/year, or CO: 82.1 lb/day or 6,711 lb/year. [District NSR Rule] Federally Enforceable Through Title V Permit
15. Emission rates from heater 21H17 shall not exceed any of the following: PM10: 5.1 lb/day, SOx (as SO2): 19.1 lb/day, VOC: 3.3 lb/day, NOx (as NO2): 56.7 lb/day or 8,760 lb/year, or CO: 200.2 lb/day or 16,365 lb/year. [District NSR Rule] Federally Enforceable Through Title V Permit
16. Emission rates from heater 21H18 shall not exceed any of the following: PM10: 6.3 lb/day, SOx (as SO2): 23.7 lb/day, VOC: 4.2 lb/day, NOx (as NO2): 70.6 lb/day, or CO: 62.3 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
17. For heater 21H11 through 21H18, duration of start-up and shutdown shall not exceed 2 hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
18. Permittee shall maintain records of duration of each start-up and shutdown for a period of five years and make such records readily available for District inspection upon request. [District Rules 2080, 4305, and 4306] Federally Enforceable Through Title V Permit
19. For heaters 21H13, 21H14, 21H15, 21H16, and 21H17, compliance with annual CO emission rate shall be determined by using CO emission concentrations obtained during monthly monitoring as required in this permit, fuel use, fuel heating value, and stack gas flow rate. Records of calculated CO emissions shall be maintained for a period of five years and made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
20. For each heater, permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
21. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306 (amended October 16, 2008). [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
25. Source testing to measure natural gas-combustion NOx and CO emissions from each heater shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
27. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
28. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
29. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, 4351] Federally Enforceable Through Title V Permit
30. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
31. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
32. Permittee shall meet all applicable NSPS requirements, including Subparts A, J and GGG. [NSPS 40 CFR Part 60, Subparts A & J] Federally Enforceable Through Title V Permit
33. Permittee shall maintain records of hhv of fuel burned and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
34. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
35. Valves and connectors subject to Rule 4455 installed for production of low sulfur diesel shall not leak in excess of 100 ppmv above background when measured one (1) cm from the source. [District NSR Rule] Federally Enforceable Through Title V Permit

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36. Pump and compressor seals subject to Rule 4455 that were installed for production of low sulfur diesel shall not leak in excess of 500 ppmv above background when measured one (1) cm from the source. [District NSR Rule] Federally Enforceable Through Title V Permit
37. Sulfur content (as H₂S) of fuel supplied to all heaters shall not exceed 0.1 gr/dscf (162 ppmv) based on a three hour rolling average and shall be continuously monitored and recorded. [NSPS 40 CFR Part 60, Subparts A & J] Federally Enforceable Through Title V Permit
38. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
39. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
40. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
41. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
42. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
43. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
44. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2.1; 4306, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
45. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit
46. Nitrogen oxide (NO_x) emissions shall not exceed 140 lb/hr, calculated as NO₂. [District Rules 4301, 5.2.2] Federally Enforceable Through Title V Permit

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47. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of Rule 4455 exist at the facility. For this permit unit, except for pumps and compressors, a minor gas leak shall be defined for any component listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service as a reading in excess of 100 ppmv above background up to and including a reading of 10,000 ppmv above background. For pumps, compressors and other component types not specifically listed in Rule 4455 Section 3.22 Table 1 in either liquid or gas/vapor service, a minor gas leak shall be defined as a reading in excess of 500 ppmv above background up to and including a reading of 10,000 ppmv above background. Readings shall be taken as methane using a portable hydrocarbon detection instrument and shall be made in accordance with the methods specified in Section 6.4.1 of Rule 4455. [District NSR Rule and District Rule 4455, 5.1.4] Federally Enforceable Through Title V Permit
48. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455, 4.1 & 4.2] Federally Enforceable Through Title V Permit
49. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455, 5.1.1] Federally Enforceable Through Title V Permit
50. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455, 5.1.2] Federally Enforceable Through Title V Permit
51. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455, 5.1.3.1] Federally Enforceable Through Title V Permit
52. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.1] Federally Enforceable Through Title V Permit
53. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.2] Federally Enforceable Through Title V Permit
54. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455, 5.1.3.2.3] Federally Enforceable Through Title V Permit
55. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455, 5.1.4] Federally Enforceable Through Title V Permit

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56. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455, 5.2.1 & 5.2.2] Federally Enforceable Through Title V Permit
57. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455, 5.2.3, 5.2.4, 5.2.5, 5.2.6 & 5.2.7] Federally Enforceable Through Title V Permit
58. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455, 5.2.8] Federally Enforceable Through Title V Permit
59. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455, 5.2.9 & 5.2.10] Federally Enforceable Through Title V Permit
60. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455, 5.2.11] Federally Enforceable Through Title V Permit
61. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455, 5.2.12] Federally Enforceable Through Title V Permit
62. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455, 5.2.13] Federally Enforceable Through Title V Permit
63. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455, 5.3.1, 5.3.2 & 5.3.3] Federally Enforceable Through Title V Permit
64. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455, 5.3.4] Federally Enforceable Through Title V Permit
65. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component; vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455, 5.3.5] Federally Enforceable Through Title V Permit

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66. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455, 5.3.6] Federally Enforceable Through Title V Permit
67. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455, 5.3.7] Federally Enforceable Through Title V Permit
68. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455, 5.4.1] Federally Enforceable Through Title V Permit
69. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455, 5.4.3 & 5.4.4] Federally Enforceable Through Title V Permit
70. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455, 5.4.5] Federally Enforceable Through Title V Permit
71. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455, 5.5.1 & 5.5.2] Federally Enforceable Through Title V Permit
72. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455, 6.1.2 & 6.1.4] Federally Enforceable Through Title V Permit

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73. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455, 6.2.1] Federally Enforceable Through Title V Permit
74. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455, 6.2.3] Federally Enforceable Through Title V Permit
75. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455, 6.3.1] Federally Enforceable Through Title V Permit
76. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455 6.3.2] Federally Enforceable Through Title V Permit
77. Copies of all records shall be retained for a minimum of five (5) years after the date of an entry. Such records shall be made available to the APCO, ARB, or US EPA upon request. [District Rule 4455, 6.2.2, 6.2.3 & 6.2.4] Federally Enforceable Through Title V Permit
78. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455, 6.4] Federally Enforceable Through Title V Permit
79. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455, 6.4.1] Federally Enforceable Through Title V Permit
80. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455, 6.4.2] Federally Enforceable Through Title V Permit
81. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455, 6.4.3] Federally Enforceable Through Title V Permit

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82. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455, 6.4.4] Federally Enforceable Through Title V Permit
83. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455, 6.4.5] Federally Enforceable Through Title V Permit
84. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4454, 4.0] Federally Enforceable Through Title V Permit
85. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGG. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484. [40 CFR 60.592(c)] Federally Enforceable Through Title V Permit
86. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b), except as provided in 40 CFR 60.482-1(c) and 40 CFR 60.482-2(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 10,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2(a) and (b)] Federally Enforceable Through Title V Permit
87. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2(e)] Federally Enforceable Through Title V Permit
88. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2(a) provided the requirements specified in 40 CFR 60.482-2(d)(1) through (6) are met. [40 CFR 60.482(d)] Federally Enforceable Through Title V Permit
89. Any PLLS that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2(e)(1), (2), and (3). [40 CFR 60.482-2(e)] Federally Enforceable Through Title V Permit
90. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10, it is exempt from the requirements of 40 CFR 60.482-2(a) through (e). [40 CFR 60.482-2(f)] Federally Enforceable Through Title V Permit
91. Any pump in PLLS that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2(a) and 40 CFR 60.482-2(d)(4) through (6) if: 1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2(c) if a leak is detected. [40 CFR 60.482-2(g)] Federally Enforceable Through Title V Permit

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92. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2(h)] Federally Enforceable Through Title V Permit
93. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(a)] Federally Enforceable Through Title V Permit
94. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(b)] Federally Enforceable Through Title V Permit
95. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10 is exempted from the requirements of 40 CFR 60.482-4(a) and (b). [40 CFR 60.482-4(c)] Federally Enforceable Through Title V Permit
96. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9. [40 CFR 60.482-4(d)] Federally Enforceable Through Title V Permit
97. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5(b)(1), (2), (3), and (4). [40 CFR 60.482-5(a), (b), and (c)] Federally Enforceable Through Title V Permit
98. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6(a) and (c)] Federally Enforceable Through Title V Permit
99. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6(b)] Federally Enforceable Through Title V Permit
100. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6(a), (b) and (c). [40 CFR 60.482-6(d)] Federally Enforceable Through Title V Permit
101. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6(a) through (c) are exempt from the requirements of 40 CFR 60.482-6(a) through (c). [40 CFR 60.482-6(e)] Federally Enforceable Through Title V Permit
102. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b) and shall comply with 40 CFR 60.482-7(b) through (e), except as provided in 40 CFR 60.482-7(f), (g), and (h), 40 CFR 60.483-1, 40 CFR 60.483-2, and 40 CFR 60.482-1(c). A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-7(a) and (b)] Federally Enforceable Through Title V Permit

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103. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7(c)] Federally Enforceable Through Title V Permit
104. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7(d) and (e)] Federally Enforceable Through Title V Permit
105. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7(a) if the valve meets the requirements specified in 40 CFR 60.482-7(f)(1), (2), and (3). [40 CFR 60.482-7(f)] Federally Enforceable Through Title V Permit
106. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7(g)] Federally Enforceable Through Title V Permit
107. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 40 CFR 60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor; and 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7(h)] Federally Enforceable Through Title V Permit
108. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1 and 60.483-2. [40 CFR 60.592(b)] Federally Enforceable Through Title V Permit
109. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485(b) and shall comply with the requirements of 40 CFR 60.482-8(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8(a) and (b)] Federally Enforceable Through Title V Permit
110. When a leak is detected in pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7(e). [40 CFR 60.482-8(c) and (d)] Federally Enforceable Through Title V Permit
111. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10(b)] Federally Enforceable Through Title V Permit

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112. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10(c)] Federally Enforceable Through Title V Permit
113. Flares used to comply with Subpart GGG shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10(d)] Federally Enforceable Through Title V Permit
114. Owners or operators of control devices used to comply with the provisions of Subpart GGG shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10(e)] Federally Enforceable Through Title V Permit
115. Except as provided in 40 CFR 60.482-10(i) through (k), each closed vent system used to comply with the provisions of Subpart GGG shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10(f) and (g)] Federally Enforceable Through Title V Permit
116. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10(h)] Federally Enforceable Through Title V Permit
117. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2). [40 CFR 60.482-10(i)] Federally Enforceable Through Title V Permit
118. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(j)(1) and (j)(2). [40 CFR 60.482-10(j)] Federally Enforceable Through Title V Permit
119. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(k)(1) through (k)(3). [40 CFR 60.482-10(k)] Federally Enforceable Through Title V Permit
120. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486(c); 4) For each inspection conducted in accordance with 40 CFR 60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10(l)] Federally Enforceable Through Title V Permit
121. Closed vent systems and control devices used to comply with provisions Subpart GGG shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10(m)] Federally Enforceable Through Title V Permit
122. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485, except as provided in 40 CFR 60.8(b). [40 CFR 60.485(a)] Federally Enforceable Through Title V Permit

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123. The owner or operator shall determine compliance with the standards in 40 CFR 60.482, 60.483, and 60.484 as follows: Method 2t shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 2t. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [40 CFR 60.485(b)] Federally Enforceable Through Title V Permit
124. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows: 1) The requirements of 40 CFR 60.485(b) shall apply. 2) Method 2t shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485(c)] Federally Enforceable Through Title V Permit
125. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485(d)] Federally Enforceable Through Title V Permit
126. The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 degrees C (1.2 in. H₂O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485(e)] Federally Enforceable Through Title V Permit
127. Samples used in conjunction with 40 CFR 60.485(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485(f)] Federally Enforceable Through Title V Permit
128. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485(g)] Federally Enforceable Through Title V Permit
129. An owner or operator of more than one affected facility subject to the provisions Subpart GGG may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486(a)] Federally Enforceable Through Title V Permit
130. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486(b)] Federally Enforceable Through Title V Permit

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131. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number; 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) "Above 10,000" if the maximum instrument reading measured by the methods specified in 40 CFR 60.485(a) after each repair attempt is equal to or greater than 10,000 ppm; 5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486(c) and District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
132. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10 shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5. [40 CFR 60.486(d)] Federally Enforceable Through Title V Permit
133. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGG; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 60.482-4; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, and 60.482-7(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; and 5) A list of identification numbers for equipment in vacuum service. [40 CFR 60.486(e)] Federally Enforceable Through Title V Permit
134. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7(g) and (h) and to all pumps subject to the requirements of 40 CFR 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486(f)] Federally Enforceable Through Title V Permit
135. The following information shall be recorded for valves complying with 40 CFR 60.483-2: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486(g)] Federally Enforceable Through Title V Permit
136. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486(h)] Federally Enforceable Through Title V Permit
137. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486(i)] Federally Enforceable Through Title V Permit

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138. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486(j)] Federally Enforceable Through Title V Permit
139. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart GGG. [District 40 CFR 60.486(k)] Federally Enforceable Through Title V Permit
140. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7(b) or 40 CFR 60.483-2, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2(b) and (d)(6)(i), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2(c)(1) and (d)(6)(ii), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3(g)(1), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487 (a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487(c)] Federally Enforceable Through Title V Permit
141. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1 and 60.483-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487(d)] Federally Enforceable Through Title V Permit
142. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGG except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487(e)] Federally Enforceable Through Title V Permit
143. The semiannual reporting requirements of 40 CFR 60.487(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487(f)] Federally Enforceable Through Title V Permit
144. Compressors are exempt from the standards of Subpart GGG if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593(b)] Federally Enforceable Through Title V Permit
145. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3 (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3 (a), (b), (c), (d), (e), and (h). [40 CFR 60.593(c)] Federally Enforceable Through Title V Permit

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146. An owner or operator may use the following provision in addition to 40 CFR 60.485(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 95, or 96. [40 CFR 60.593(d)] Federally Enforceable Through Title V Permit
147. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2 to 40 CFR 60.482-10 if it is identified as required in 40 CFR 60.486(e)(5). [40 CFR 60.482-1(d)] Federally Enforceable Through Title V Permit
148. The operator shall not burn in any fuel gas combustion device any fuel that contains hydrogen sulfide (H₂S) in excess of 0.10 gr/dscf (230 mg/dscm) [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit
149. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit
150. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H₂S as measured by the H₂S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO₂ as measured by the SO₂ continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit
151. Operator shall determine compliance with the H₂S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit
152. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit
153. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit
154. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NO_x emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NO_x emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
155. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit
156. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 2520, 4305, and 4306] Federally Enforceable Through Title V Permit
157. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
158. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart GGG. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
159. The operator shall be in compliance with the applicable requirement in Sections 5.4.1 of District Rule 4320 (Adopted 10/16/2008) no later than July 1, 2013. [District Rule 4320, 5.4.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-33-63-12

EXPIRATION DATE: 08/31/2016

SECTION: 28 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

SOUR WATER AND OILY WASTEWATER OPERATION INCLUDING HYDROCRACKER AND PHENOLIC SOUR WATER STRIPPING, PHOSAM UNIT, OIL WASTEWATER CLASSIFIER (83D-13), AND MISCELLANEOUS TANKS AND ASSOCIATED PIPING - AREA 2

PERMIT UNIT REQUIREMENTS

1. Off-gas from adsorber and stripper columns shall be processed in sulfur recovery plants. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Oil skims tank shall receive liquids exclusively from classifier tank #86-J-62. Liquid throughput for oil skims tank shall not exceed 750 gallons per day. [District NSR Rule] Federally Enforceable Through Title V Permit
3. True vapor pressure (TVP) of any liquid placed, stored, or held in the oil skims tank or the classifier tank #86-J-62 shall not exceed 1.5 psia at storage temperature. [District NSR Rule and 4623] Federally Enforceable Through Title V Permit
4. Permittee shall maintain records of daily liquid throughput for the oil skims tank. [District Rule 1070] Federally Enforceable Through Title V Permit
5. Pressure/vacuum relief valve on oil skims tank shall be set to 0.5 oz vacuum and 1 oz. pressure. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455, 4.1 & 4.2] Federally Enforceable Through Title V Permit
7. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455, 5.1.1] Federally Enforceable Through Title V Permit
8. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455, 5.1.2] Federally Enforceable Through Title V Permit

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9. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455, 5.1.3.1] Federally Enforceable Through Title V Permit
10. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.1] Federally Enforceable Through Title V Permit
11. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.2] Federally Enforceable Through Title V Permit
12. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455, 5.1.3.2.3] Federally Enforceable Through Title V Permit
13. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455, 5.1.4] Federally Enforceable Through Title V Permit
14. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455, 5.2.1 & 5.2.2] Federally Enforceable Through Title V Permit
15. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455, 5.2.3, 5.2.4, 5.2.5, 5.2.6 & 5.2.7] Federally Enforceable Through Title V Permit
16. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455, 5.2.8] Federally Enforceable Through Title V Permit
17. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455, 5.2.9 & 5.2.10] Federally Enforceable Through Title V Permit
18. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455, 5.2.11] Federally Enforceable Through Title V Permit
19. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455, 5.2.12] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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20. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455, 5.2.13] Federally Enforceable Through Title V Permit
21. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455, 5.3.1, 5.3.2 & 5.3.3] Federally Enforceable Through Title V Permit
22. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455, 5.3.4] Federally Enforceable Through Title V Permit
23. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455, 5.3.5] Federally Enforceable Through Title V Permit
24. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455, 5.3.6] Federally Enforceable Through Title V Permit
25. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455, 5.3.7] Federally Enforceable Through Title V Permit
26. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455, 5.4.1] Federally Enforceable Through Title V Permit
27. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455, 5.4.3 & 5.4.4] Federally Enforceable Through Title V Permit
28. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455, 5.4.5] Federally Enforceable Through Title V Permit

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29. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455, 5.5.1 & 5.5.2] Federally Enforceable Through Title V Permit
30. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455, 6.1.2 & 6.1.4] Federally Enforceable Through Title V Permit
31. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455, 6.2.1] Federally Enforceable Through Title V Permit
32. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455, 6.2.3] Federally Enforceable Through Title V Permit
33. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455, 6.3.1] Federally Enforceable Through Title V Permit
34. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455 6.3.2] Federally Enforceable Through Title V Permit
35. Copies of all records shall be retained for a minimum of five (5) years after the date of an entry. Such records shall be made available to the APCO, ARB, or US EPA upon request. [District Rule 4455, 6.2.2, 6.2.3 & 6.2.4] Federally Enforceable Through Title V Permit
36. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455, 6.4] Federally Enforceable Through Title V Permit

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37. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455, 6.4.1] Federally Enforceable Through Title V Permit
38. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455, 6.4.2] Federally Enforceable Through Title V Permit
39. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455, 6.4.3] Federally Enforceable Through Title V Permit
40. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455, 6.4.4] Federally Enforceable Through Title V Permit
41. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455, 6.4.5] Federally Enforceable Through Title V Permit
42. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4454, 4.0] Federally Enforceable Through Title V Permit
43. A person shall not use any compartment of any vessel or device operated for the recovery of oil or tar from effluent water, from any equipment which processes, refines, stores or handles petroleum or coal tar products unless such compartments are equipped with one of the following vapor loss control devices, except when gauging or sampling is taking place: 1) A solid cover with all openings sealed and totally enclosing the liquid contents of the compartment, except for such breathing vents as are structurally necessary, 2) A floating pontoon or double-deck type cover, equipped with closure seals that have no holes or tears, installed and maintained so that gaps between the compartment wall and seal shall not exceed one-eighth (1/8) inch for an accumulative length of 97 percent of the perimeter of the tank, and shall not exceed one-half (1/2) inch for an accumulative length of the remaining three (3) percent of the perimeter of the tank. No gap between the compartment wall and the seal shall exceed one-half (1/2) inch, or 3) A vapor recovery system with a combined collection and control efficiency of at least 90 percent by weight. [District Rule 4625, 5.1] Federally Enforceable Through Title V Permit
44. Any gauging and sampling device in the compartment cover shall be equipped with a cover or lid. The cover shall be in a closed position at all times, except when the device is in actual use. [District Rule 4625, 5.2] Federally Enforceable Through Title V Permit
45. All wastewater separator forbays shall be covered. [District Rule 4625, 5.3] Federally Enforceable Through Title V Permit
46. Skimmed oil or tar removed from wastewater separating devices shall be either charged to process units with feed or transferred to a container with a control system with at least 90 percent control efficiency by weight. [District Rule 4625, 5.4] Federally Enforceable Through Title V Permit

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47. Efficiency of VOC control device shall be determined by EPA Test Method 25 and analysis of halogenated exempt compounds shall be by ARB Method 422. [District Rule 4625, 6.1.1] Federally Enforceable Through Title V Permit
48. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-33-70-5

EXPIRATION DATE: 08/31/2016

SECTION: 28 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

TRUCK UNLOADING RACK #5 OPERATION INCLUDING PUMPS

PERMIT UNIT REQUIREMENTS

1. Permittee shall maintain accurate records of liquid type, vapor pressure (TVP or RVP), and amount of each liquid transferred. Such records shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455, 4.1 & 4.2] Federally Enforceable Through Title V Permit
3. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455, 5.1.1] Federally Enforceable Through Title V Permit
4. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455, 5.1.2] Federally Enforceable Through Title V Permit
5. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455, 5.1.3.1] Federally Enforceable Through Title V Permit
6. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.1] Federally Enforceable Through Title V Permit
7. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.2] Federally Enforceable Through Title V Permit

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8. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455, 5.1.3.2.3] Federally Enforceable Through Title V Permit
9. A component shall be considered leaking if one of more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455, 5.1.4] Federally Enforceable Through Title V Permit
10. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455, 5.2.1 & 5.2.2] Federally Enforceable Through Title V Permit
11. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455, 5.2.3, 5.2.4, 5.2.5, 5.2.6 & 5.2.7] Federally Enforceable Through Title V Permit
12. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455, 5.2.8] Federally Enforceable Through Title V Permit
13. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455, 5.2.9 & 5.2.10] Federally Enforceable Through Title V Permit
14. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455, 5.2.11] Federally Enforceable Through Title V Permit
15. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455, 5.2.12] Federally Enforceable Through Title V Permit
16. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455, 5.2.13] Federally Enforceable Through Title V Permit
17. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455, 5.3.1, 5.3.2 & 5.3.3] Federally Enforceable Through Title V Permit
18. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455, 5.3.4] Federally Enforceable Through Title V Permit

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19. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455, 5.3.5] Federally Enforceable Through Title V Permit
20. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455, 5.3.6] Federally Enforceable Through Title V Permit
21. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455, 5.3.7] Federally Enforceable Through Title V Permit
22. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455, 5.4.1] Federally Enforceable Through Title V Permit
23. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455, 5.4.3 & 5.4.4] Federally Enforceable Through Title V Permit
24. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455, 5.4.5] Federally Enforceable Through Title V Permit
25. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455, 5.5.1 & 5.5.2] Federally Enforceable Through Title V Permit
26. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455, 6.1.2 & 6.1.4] Federally Enforceable Through Title V Permit

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27. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455, 6.2.1] Federally Enforceable Through Title V Permit
28. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455, 6.2.3] Federally Enforceable Through Title V Permit
29. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455, 6.3.1] Federally Enforceable Through Title V Permit
30. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455 6.3.2] Federally Enforceable Through Title V Permit
31. Copies of all records shall be retained for a minimum of five (5) years after the date of an entry. Such records shall be made available to the APCO, ARB, or US EPA upon request. [District Rule 4455, 6.2.2, 6.2.3 & 6.2.4] Federally Enforceable Through Title V Permit
32. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455, 6.4] Federally Enforceable Through Title V Permit
33. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455, 6.4.1] Federally Enforceable Through Title V Permit
34. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455, 6.4.2] Federally Enforceable Through Title V Permit
35. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455, 6.4.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

36. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455, 6.4.4] Federally Enforceable Through Title V Permit
37. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455, 6.4.5] Federally Enforceable Through Title V Permit
38. The transfer rack vapor collection and control equipment shall be designed, installed, maintained and operated such that there are no leaks and no excess organic liquid drainage at disconnections. [District Rule 4624, 5.6] Federally Enforceable Through Title V Permit
39. For a Class I organic liquid transfer facility, the emission of VOC from the transfer operation shall not exceed 0.08 pounds per 1,000 gallons of organic liquid transferred. The VOC from the transfer operation shall be routed a storage tank that meets the control requirements specified in Rule 4623 (Amended 5/19/05). [District Rules 4624, 5.1] Federally Enforceable Through Title V Permit
40. The transfer rack vapor collection and control system shall operate such that the pressure in the delivery tank being loaded does not exceed 18 inches water column pressure and 6 inches water column vacuum. [District Rule 4624, 5.4] Federally Enforceable Through Title V Permit
41. The construction of any new top loading facility or the reconstruction, as defined in 40 CFR 60.15, or the expansion of any existing top loading facility with top loading equipment shall not be allowed. [District Rule 4624, 5.7] Federally Enforceable Through Title V Permit
42. In an organic liquid transfer facility, a leak is defined as the dripping of VOC-containing liquid at a rate of more than three (3) drops per minute, or for organic liquids other than gasoline, the detection of any gaseous or vapor emissions with a concentration of VOC greater than 1,000 ppmv above background as methane, or for gasoline, a concentration of VOC greater than 10,000 ppmv as methane above background when measured using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rule 4624, 3.17] Federally Enforceable Through Title V Permit
43. Excess organic liquid drainage is defined as more than ten (10) milliliters liquid drainage. Such liquid drainage for disconnect operations shall be determined by computing the average drainage from three consecutive disconnects at any one permit unit. [District Rule 4624, 3.13] Federally Enforceable Through Title V Permit
44. The operator shall inspect the transfer rack vapor collection and control system and each transfer rack handling organic liquids for leaks during transfer at least once every calendar quarter using the EPA Method 21. [District Rule 4624, 5.9.1] Federally Enforceable Through Title V Permit
45. All leaking transfer equipment shall be repaired or replaced within 72 hours of discovery. If the leaking component cannot be repaired or replaced within 72 hours, the component shall be taken out of service until such time the component is repaired or replaced. The repaired or replacement equipment shall be reinspected the first time the equipment is in operation after the repair or replacement. [District Rule 4624, 5.9.3] Federally Enforceable Through Title V Permit
46. For an organic liquid transfer facility, an operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually provided no leaks were found during five consecutive quarterly inspections. Upon identification of any leak during an annual inspection, the inspection frequency shall revert back to quarterly, and the operator shall contact the APCO in writing within 14 days. [District Rule 4624, 5.9.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

47. Corrective steps shall be taken at any time the operator observes excess drainage at disconnect. In addition, the operator shall perform and record the results of annual drainage inspections at disconnect for each loading arm. If excess drainage on any loading rack is found, the drainage inspection frequency for that unit shall be changed from annual to quarterly. If no excess drainage is found during five quarterly inspections, inspection frequency for that unit shall be changed back from quarterly to annual. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
48. Compliance shall be demonstrated by collecting all drainage at disconnect in a spouted container. The drainage shall be transferred to a graduated cylinder and the volume determined within one (1) minute of collection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
49. The permittee shall keep records of daily liquid throughput and maintain an inspection log containing at least the following: A) dates of leak and drainage inspections, B) leak determination method, C) findings, D) corrective action (date each leak or excess drainage condition repaired), and E) inspector name and signature. [District Rule 2520, 9.3.2 and 4624, 6.1.3] Federally Enforceable Through Title V Permit
50. VOC emissions from the transfer rack vapor collection and control system shall be determined annually using 40 CFR 60.503, "Test Methods and Procedures" and EPA Methods 2A, 2B, 25A and 25B and ARB Method 422, or ARB Test Procedure TP-203.1. [District Rule 4624, 6.3.2] Federally Enforceable Through Title V Permit
51. The transfer rack vapor collection and control system (VCCS) shall be tested annually to demonstrate the pressure in the delivery tanks being loaded complies with the requirements specified in this permit. Compliance shall be determined by calibrating and installing a liquid manometer, magnehelic device, or other instrument demonstrated to be equivalent, capable of measuring up to 500 mm water gauge pressure with a precision of 2.5 mm water gauge, on the terminal's VCCS at a pressure tap as close as possible to the connection with the product tank truck. The highest instantaneous pressure measurement as well as all pressure measurements at 5 minute intervals during delivery vessel loading must be recorded. Every loading position must be tested at least once during the annual performance test. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-33-112-4

EXPIRATION DATE: 08/31/2016

SECTION: 28 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

4,032,000 GALLON FLOATING ROOF PETROLEUM STORAGE TANK #96M01 WITH METALLIC SHOE PRIMARY SEAL AND WIPER SECONDARY SEAL

PERMIT UNIT REQUIREMENTS

1. Gaps between the tank shell and the primary seal shall not exceed 1-1/2 inches. [District Rule 4623, 5.3.2.1.1] Federally Enforceable Through Title V Permit
2. The cumulative length of all primary seal gaps greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623, 5.3.2.1.1] Federally Enforceable Through Title V Permit
3. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623, 5.3.2.1.1] Federally Enforceable Through Title V Permit
4. No continuous gap greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623, 5.3.2.1.1] Federally Enforceable Through Title V Permit
5. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623, 5.3.2.1.2] Federally Enforceable Through Title V Permit
6. The cumulative length of all secondary seal gaps greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623, 5.3.2.1.2] Federally Enforceable Through Title V Permit
7. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 24 inches above the stored liquid surface. [District Rule 4623, 5.3.2.1.3] Federally Enforceable Through Title V Permit
8. The maximum gap between the shoe and the tank shell shall be no greater than double the gap allowed by the seal gap criteria for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623, 5.3.2.1.4] Federally Enforceable Through Title V Permit
9. There shall be no tears, holes or openings in the secondary seal or in the primary seal envelope surrounding the annular vapor space enclosed by the roof edge, stored liquid surface, shoe, and seal fabric. [District Rule 4623, 5.3.2.1.5] Federally Enforceable Through Title V Permit
10. The secondary seal shall allow easy insertion of probes of up to 1-1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623, 5.3.2.1.6] Federally Enforceable Through Title V Permit
11. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623, 5.3.2.1.7] Federally Enforceable Through Title V Permit
12. Pressure-vacuum valves shall be set to within ten (10) percent of the maximum allowable working pressure of the roof. [District Rule 4623, 5.2 and 5.5.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: ALON BAKERSFIELD REFINING

Location: 6451 ROSEDALE HWY (AREA 1 & 2), BAKERSFIELD, CA 93308

S-33-112-4, May 5 2014, 8:45AM - RINALDIR

13. All openings in the roof used for sampling or gauging, except pressure-vacuum valves, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal, or lid. The cover, seal, or lid shall at all times be in a closed position, with no visible gaps and leak-free, except when the device or appurtenance is in use for sampling or gauging. [District Rule 4623, 5.5.1] Federally Enforceable Through Title V Permit
14. Any roof drain shall be provided with a slotted membrane fabric cover, or equivalent, that covers at least 90% of the area of the opening. [District Rule 4623, 5.5.2.2.5] Federally Enforceable Through Title V Permit
15. The permittee shall keep accurate records of Reid vapor pressure, storage temperature and types of liquids stored, and shall make such records available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit
16. True vapor pressure of the stored liquid shall not exceed 11 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
17. Tank organic liquid throughput shall not exceed 192,000 bbl/day. Permittee shall maintain daily records of tank throughput and shall make such records readily available for District inspection upon request. [District NSR Rule and 1070] Federally Enforceable Through Title V Permit
18. Except for automatic bleeder vents, rim vents, and pressure relief vents, each opening in a non-contact external floating roof shall provide a projection below the liquid surface. [District Rule 4623, 5.5.2.2.1] Federally Enforceable Through Title V Permit
19. Except for automatic bleeder vents and rim vents, roof drains, and leg sleeves, each opening in the roof shall be equipped with a gasketed cover, seal, or lid that shall be maintained in a closed position at all times (i.e., no visible gap) except when in actual use. [District Rule 4623, 5.5.2.2.2] Federally Enforceable Through Title V Permit
20. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 4623, 5.5.2.2.3] Federally Enforceable Through Title V Permit
21. Rim vents shall be equipped with a gasket and shall be set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. [District Rule 4623, 5.5.2.2.4] Federally Enforceable Through Title V Permit
22. External floating roof legs shall be equipped with vapor socks or vapor barriers in order to maintain a gas-tight condition so as to prevent VOC emissions from escaping through the roof leg opening. [District Rule 4623, 5.5.2.2.6] Federally Enforceable Through Title V Permit
23. Solid sampling or gauging wells, and similar fixed projections through a floating roof such as an anti-rotational pipe, shall provide a projection below the liquid surface. The well shall be equipped with a pole wiper and a gasketed cover, seal or lid which shall be in a closed position at all times (i.e., no visible gap) except when the well is in use. The gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed one-half (1/2) inch. [District Rule 4623, 5.5.2.3] Federally Enforceable Through Title V Permit
24. Slotted sampling or gauging wells shall provide a projection below the liquid surface. The well on external floating roof shall be equipped with the following: a sliding cover, a well gasket, a pole sleeve, a pole wiper, and an internal float and float wiper designed to minimize the gap between the float and the well, and provided the gap shall not exceed one-eighth (1/8) inch; or shall be equipped with a well gasket, a zero gap pole wiper seal and a pole sleeve that projects below the liquid surface. The gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed one-eighth (1/8) inch. [District Rule 4623, 5.5.2.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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25. The permittee of external floating roof tanks shall make the primary seal envelope available for unobstructed inspection by the APCO on an annual basis at locations selected along its circumference at random by the APCO. In the case of riveted tanks with toroid-type seals, a minimum of eight (8) locations shall be made available; in all other cases, a minimum of four (4) locations shall be made available. If the APCO suspects a violation may exist the APCO may require such further unobstructed inspection of the primary seal as may be necessary to determine the seal condition for its entire circumference. [District Rule 4623 6.1.1] Federally Enforceable Through Title V Permit
26. Permittee shall inspect all floating tanks at least once every 12 months to determine compliance with the requirements of this rule. The actual gap measurements of the floating roof primary and secondary seals shall be recorded. The inspection results shall be submitted to the APCO as specified in Section 6.3.5. [District Rule 4623, 6.1.3.1.1] Federally Enforceable Through Title V Permit
27. Permittee shall inspect the primary and secondary seals for compliance with the requirements of this rule every time a tank is emptied or degassed. Actual gap measurements shall be performed when the liquid level is static but not more than 24 hours after the tank roof is re-floated. [District Rule 4623, 6.1.3.1.2] Federally Enforceable Through Title V Permit
28. Permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of Rule 4623. [District Rule 4623, 6.3.5] Federally Enforceable Through Title V Permit
29. Permittee shall maintain the records of the external floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the True Vapor pressure (TVP), API gravity, and type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. The permittee shall keep the records at the facility (or on-site) for a period of five years. The records shall be made available to the APCO upon request. [District Rule 4623, 6.3.7] Federally Enforceable Through Title V Permit
30. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
31. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, or method D5191, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
32. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
33. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
34. Operator shall determine the true vapor pressure of the organic liquid stored in the tank at least once per year in accordance with methods described in section 6.4 of District Rule 4623 (amended 5/19/05). Determinations shall be made annually during summer and whenever there is a change in the source or type of petroleum entering the tank. [District Rule-2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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35. Construction, reconstruction, or modification of this unit was commenced prior to June 11, 1973. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
36. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids store in this unit to determine which oil are from common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-33-124-9

EXPIRATION DATE: 08/31/2016

SECTION: 28 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

GAS PLANT #2 INCLUDING AMINE REGENERATION SYSTEM, VOC COALESCER, DRYER SYSTEM, DE-ETHANIZER, DE-PROPANIZER, PIPING TO SRU #1 (PTO #S-33-16) AND MISC. PUMPS, PIPING AND VESSELS

PERMIT UNIT REQUIREMENTS

1. Off-gases from HTU #3 desulfurizer stripper (#S-33-52) and HCU debutanizer (#S-33-53) shall be routed to an amine absorber for sulfur removal prior to combustion, except during breakdown conditions pursuant to Rule 1100. [District NSR Rule] Federally Enforceable Through Title V Permit
2. All amine regenerator off-gas from this permit unit shall be desulfurized at SRU #1 (S-33-16) and/or SRU #3 (S-33-338), except during breakdown conditions pursuant to Rule 1100. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Fugitive VOC emissions from permit unit shall not exceed 377.0 lb per day. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Permittee shall maintain accurate records of fugitive component counts and resulting emissions calculated using API Publication 4322, Table E-3, and U.S. EPA Publication 453/R-93-026, Tables 2-2 and 2-5, or other District approved emission factors. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Compliance with fugitive VOC emission limit shall be demonstrated by annual component count and District approved emission factors. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Fuel oil contribution to total heat input shall not exceed the following percentages: 70% for crude heaters (11H11 and 11H12) and boilers (81B17 and 81B18) and 63% for vacuum heater (18H11). [District NSR Rule] Federally Enforceable Through Title V Permit
7. Permittee shall maintain accurate records of fuel oil contribution to total heat input for crude heaters (11H11 & 11H12), boilers (81B17 & 81B18), and vacuum heater (18H11), and shall make such records readily available for District inspection. [District Rule 1070] Federally Enforceable Through Title V Permit
8. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455, 4.1 & 4.2] Federally Enforceable Through Title V Permit

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These terms and conditions are part of the Facility-wide Permit to Operate.

9. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455, 5.1.1] Federally Enforceable Through Title V Permit
10. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455, 5.1.2] Federally Enforceable Through Title V Permit
11. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455, 5.1.3.1] Federally Enforceable Through Title V Permit
12. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.1] Federally Enforceable Through Title V Permit
13. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.2] Federally Enforceable Through Title V Permit
14. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455, 5.1.3.2.3] Federally Enforceable Through Title V Permit
15. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455, 5.1.4] Federally Enforceable Through Title V Permit
16. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455, 5.2.1 & 5.2.2] Federally Enforceable Through Title V Permit
17. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455, 5.2.3, 5.2.4, 5.2.5, 5.2.6 & 5.2.7] Federally Enforceable Through Title V Permit
18. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455, 5.2.8] Federally Enforceable Through Title V Permit
19. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455, 5.2.9 & 5.2.10] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

20. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455, 5.2.11] Federally Enforceable Through Title V Permit
21. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455, 5.2.12] Federally Enforceable Through Title V Permit
22. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455, 5.2.13] Federally Enforceable Through Title V Permit
23. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455, 5.3.1, 5.3.2 & 5.3.3] Federally Enforceable Through Title V Permit
24. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455, 5.3.4] Federally Enforceable Through Title V Permit
25. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455, 5.3.5] Federally Enforceable Through Title V Permit
26. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455, 5.3.6] Federally Enforceable Through Title V Permit
27. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455, 5.3.7] Federally Enforceable Through Title V Permit
28. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455, 5.4.1] Federally Enforceable Through Title V Permit
29. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455, 5.4.3 & 5.4.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

30. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455, 5.4.5] Federally Enforceable Through Title V Permit
31. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455, 5.5.1 & 5.5.2] Federally Enforceable Through Title V Permit
32. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455, 6.1.2 & 6.1.4] Federally Enforceable Through Title V Permit
33. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455, 6.2.1] Federally Enforceable Through Title V Permit
34. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455, 6.2.3] Federally Enforceable Through Title V Permit
35. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455, 6.3.1] Federally Enforceable Through Title V Permit
36. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455 6.3.2] Federally Enforceable Through Title V Permit
37. Copies of all records shall be retained for a minimum of five (5) years after the date of an entry. Such records shall be made available to the APCO, ARB, or US EPA upon request. [District Rule 4455, 6.2.2, 6.2.3 & 6.2.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

38. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455, 6.4] Federally Enforceable Through Title V Permit
39. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455, 6.4.1] Federally Enforceable Through Title V Permit
40. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455, 6.4.2] Federally Enforceable Through Title V Permit
41. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455, 6.4.3] Federally Enforceable Through Title V Permit
42. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455, 6.4.4] Federally Enforceable Through Title V Permit
43. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455, 6.4.5] Federally Enforceable Through Title V Permit
44. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4454, 4.0] Federally Enforceable Through Title V Permit
45. The operator shall not burn in any fuel gas combustion device any fuel that contains hydrogen sulfide (H₂S) in excess of 0.10 gr/dscf (230 mg/dscm) [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit
46. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit
47. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H₂S as measured by the H₂S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO₂ as measured by the SO₂ continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit
48. Operator shall determine compliance with the H₂S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE.

These terms and conditions are part of the Facility-wide Permit to Operate.

49. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit
50. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit
51. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-33-138-6

EXPIRATION DATE: 08/31/2016

SECTION: 27 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

462,000 GALLON FIXED ROOF STORAGE TANK #11007

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Operator shall determine the true vapor pressure of the organic liquid stored in the tank at least once per year in accordance with methods described in section 6.4 of District Rule 4623 (amended May 19, 2005). Determinations shall be made annually during summer and whenever there is a change in the source or type of petroleum entering the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
4. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, or method D5191, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
7. Operator shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The record shall include the tank identification number, PTO number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. An operator who uses the information in Appendix A of District Rule 4623 (5/19/05) to demonstrate the TVP and/or API gravity of the stored organic liquid shall submit information to the APCO within 45 days after the date that the type of organic liquid stored in the tank has been determined. [District Rule 4623] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

9. True vapor pressure of the petroleum liquid stored shall be less than 1.5 psia. [40 CFR 60.112a(1)] Federally Enforceable Through Title V Permit
10. If the Reid vapor pressure of the petroleum liquid stored is greater than 1.0 psia, or the maximum true vapor pressure of the petroleum liquid is greater than 1.0 psia, then operator shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [40 CFR 60.113(a) and 60.113(d)(1)] Federally Enforceable Through Title V Permit
11. Maximum true vapor pressure may be determined from nomographs contained in API Bulletin 2517, by using the typical Reid vapor pressure and the maximum expected storage temperature of the stored product, unless the APCO specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.113(b)] Federally Enforceable Through Title V Permit
12. Operator shall determine the true vapor pressure of each type of crude oil with a Reid vapor pressure less than 2.0 psia or whose physical properties preclude determination by the recommended method from available data and record if the true vapor pressure is greater than 1.0 psia. [40 CFR 60.113(e)] Federally Enforceable Through Title V Permit
13. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart K. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
14. Construction, reconstruction, or modification of this unit was commenced prior to May 19, 1978. Therefore, the requirements of 40 CFR 60 Subpart Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-33-139-4

EXPIRATION DATE: 08/31/2016

SECTION: 27 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

462,000 GALLON FIXED ROOF STORAGE TANK #11008

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the petroleum liquid stored shall be less than 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Operator shall determine the true vapor pressure of the organic liquid stored in the tank at least once per year in accordance with methods described in section 6.4 of District Rule 4623 (amended May 19, 2005). Determinations shall be made annually during summer and whenever there is a change in the source or type of petroleum entering the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
4. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, or method D5191, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
7. Operator shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The record shall include the tank identification number, PTO number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. An operator who uses the information in Appendix A of District Rule 4623 (5/19/05) to demonstrate the TVP and/or API gravity of the stored organic liquid shall submit information to the APCO within 45 days after the date that the type of organic liquid stored in the tank has been determined. [District Rule 4623] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: ALON BAKERSFIELD REFINING

Location: 6451 ROSEDALE HWY (AREA 1 & 2), BAKERSFIELD, CA 93308

S-33-139-4 - May 5 2014 8:40AM - RINLDR

9. Construction, reconstruction, or modification of this unit was commenced prior to May 19, 1978 and the TVP of liquid stored in this tank is not equal to or greater than 0.5 psia. Therefore, the requirements of 40 CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
10. As used in this permit, the term "source or type of petroleum" shall mean petroleum liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids store in this unit to determine which oil are from common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-33-349-15

EXPIRATION DATE: 08/31/2016

SECTION: 28 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

CD HYDRO UNIT #27 INCLUDING 50 MMBTU/HR HEATER 27H1, ACCUMULATOR, FEED BOTTOM EXCHANGERS, CONDENSERS, REFORMATE COOLERS, REBOIL CIRCULATING PUMPS, REFLUX PUMPS, HYDROGEN FEED GUARD BED, HYDROGEN RECYCLE COMPRESSOR, BENZENE SATURATION COLUMN, & 2 HYDRO SULFUR GUARD DRUMS - AREA 2

PERMIT UNIT REQUIREMENTS

1. Permittee shall meet all applicable requirements of NSPS Subparts A, J, GGG, and QQQ. [District Rule 4001] Federally Enforceable Through Title V Permit
2. Except during startup and shutdown, heater 27H1 emission rates shall not exceed the following: PM10: 0.014 lb/MMBtu, NOx: 0.036 lb/MMBtu or 30 ppmv @ 3% O2, VOC: 0.005 lb/MMBtu, and CO: 100 ppmv @ 3% O2. Emission limits are on a one hour average. [District NSR Rule, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
3. Emission rates from heater 27H1 shall not exceed any of the following: PM10: 16.8 lb/day, SOx (as SO2): 34.3 lb/day, VOC: 6.0 lb/day, NOx (as NO2): 43.2 lb/day, or CO: 90.0 lb/day [District NSR Rule] Federally Enforceable Through Title V Permit
4. For heater 27H1, duration of start-up and shutdown shall not exceed 2 hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
5. Permittee shall maintain records of duration of each start-up and shutdown for a period of five years and make such records readily available for District inspection upon request. [District Rules 2080, 4305 and 4306] Federally Enforceable Through Title V Permit
6. For each heater, permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
7. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

8. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
9. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
10. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
11. Source testing to measure natural gas-combustion NO_x and CO emissions from each heater shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
12. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
13. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
14. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
15. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, 4351] Federally Enforceable Through Title V Permit
16. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
18. Fugitive volatile organic compound (VOC) emissions, as determined by annual component count and CAPCOA revised 1995 EPA Correlation Equations and Factors for Refineries and Marketing Terminals, Table IV-3a, shall not exceed 92.9 lb/day.. [District NSR Rule] Federally Enforceable Through Title V Permit
19. Leaks from valves and connectors associated with the LUX sulfur absorbers 27-D3 A/B and subject to the provisions of Rule 4455 shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Leaks from seals on pump 27-P3 and subject to the provisions of Rule 4455 shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background. [District NSR Rule] Federally Enforceable Through Title V Permit

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21. Permittee shall maintain records of hhw of fuel burned and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
22. The number of representative units source tested for NOx emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 4306, 6.3.2.5] Federally Enforceable Through Title V Permit
23. The portable analyzer shall be calibrated prior to each use with a two-point calibration method (zero and span). Calibration shall be performed with certified calibration gases. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
24. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
25. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
26. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
27. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
28. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
29. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
30. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
31. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules, 4305, 6.2.1, 4306, 6.2.1, and 4351, 6.2.1] Federally Enforceable Through Title V Permit
32. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 4801 and Kern County Rule 407] Federally Enforceable Through Title V Permit

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33. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2] Federally Enforceable Through Title V Permit
34. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455, 4.1 & 4.2] Federally Enforceable Through Title V Permit
35. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455, 5.1.1] Federally Enforceable Through Title V Permit
36. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455, 5.1.2] Federally Enforceable Through Title V Permit
37. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455, 5.1.3.1] Federally Enforceable Through Title V Permit
38. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.1] Federally Enforceable Through Title V Permit
39. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.2] Federally Enforceable Through Title V Permit
40. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455, 5.1.3.2.3] Federally Enforceable Through Title V Permit
41. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455, 5.1.4] Federally Enforceable Through Title V Permit
42. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455, 5.2.1 & 5.2.2] Federally Enforceable Through Title V Permit
43. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455, 5.2.3, 5.2.4, 5.2.5, 5.2.6 & 5.2.7] Federally Enforceable Through Title V Permit

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44. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455, 5.2.8] Federally Enforceable Through Title V Permit
45. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455, 5.2.9 & 5.2.10] Federally Enforceable Through Title V Permit
46. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455, 5.2.11] Federally Enforceable Through Title V Permit
47. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455, 5.2.12] Federally Enforceable Through Title V Permit
48. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455, 5.2.13] Federally Enforceable Through Title V Permit
49. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455, 5.3.1, 5.3.2 & 5.3.3] Federally Enforceable Through Title V Permit
50. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455, 5.3.4] Federally Enforceable Through Title V Permit
51. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455, 5.3.5] Federally Enforceable Through Title V Permit
52. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455, 5.3.6] Federally Enforceable Through Title V Permit

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53. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455, 5.3.7] Federally Enforceable Through Title V Permit
54. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455, 5.4.1] Federally Enforceable Through Title V Permit
55. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455, 5.4.3 & 5.4.4] Federally Enforceable Through Title V Permit
56. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455, 5.4.5] Federally Enforceable Through Title V Permit
57. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455, 5.5.1 & 5.5.2] Federally Enforceable Through Title V Permit
58. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455, 6.1.2 & 6.1.4] Federally Enforceable Through Title V Permit
59. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455, 6.2.1] Federally Enforceable Through Title V Permit

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60. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455, 6.2.3] Federally Enforceable Through Title V Permit
61. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455, 6.3.1] Federally Enforceable Through Title V Permit
62. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455 6.3.2] Federally Enforceable Through Title V Permit
63. Copies of all records shall be retained for a minimum of five (5) years after the date of an entry. Such records shall be made available to the APCO, ARB, or US EPA upon request. [District Rule 4455, 6.2.2, 6.2.3 & 6.2.4] Federally Enforceable Through Title V Permit
64. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455, 6.4] Federally Enforceable Through Title V Permit
65. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455, 6.4.1] Federally Enforceable Through Title V Permit
66. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455, 6.4.2] Federally Enforceable Through Title V Permit
67. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455, 6.4.3] Federally Enforceable Through Title V Permit
68. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455, 6.4.4] Federally Enforceable Through Title V Permit
69. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455, 6.4.5] Federally Enforceable Through Title V Permit

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70. Operators shall not depressurize any vessel containing VOCs unless the process unit turnaround is accomplished by employing one of the following operating procedures: The organic vapors shall either be recovered, added to the refinery fuel gas system and combusted; or controlled and piped to an appropriate firebox or incinerated for combustion; or flared, until the pressure within the process vessel is as close to atmospheric pressure as is possible. All process vessels shall be depressurized into the control facilities to less than 1020 mm Hg (5 psig) before venting/opening to atmosphere. All organic compounds which emerge from a refinery process vessel during the purging of said vessel and which otherwise would be emitted to the atmosphere shall be either directed to a flare or incinerator or shall be used for fuel until such disposition of emissions is not technically feasible or is less safe than atmospheric venting. [District Rule 4454, 4.0] Federally Enforceable Through Title V Permit
71. The owner or operator may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in Subpart GGG. In doing so, the owner or operator shall comply with the requirements of 40 CFR 60.484. [40 CFR 60.592(c)] Federally Enforceable Through Title V Permit
72. Each pump in light liquid service (PLLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b), except as provided in 40 CFR 60.482-1(c) and 40 CFR 60.482-2(d), (e), and (f). Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 10,000 ppm or greater is measured or if there are indications of liquids dripping from the pump seal. [40 CFR 60.482-2(a) and (b)] Federally Enforceable Through Title V Permit
73. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-2(c)] Federally Enforceable Through Title V Permit
74. Each PLLS equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2(a) provided the requirements specified in 40 CFR 60.482-2(d)(1) through (6) are met. [40 CFR 60.482(d)] Federally Enforceable Through Title V Permit
75. Any PLLS that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2(a), (c), and (d) if the pump meets the requirements specified in 40 CFR 60.482-2(e)(1), (2), and (3). [40 CFR 60.482-2(e)] Federally Enforceable Through Title V Permit
76. If any PLLS is equipped with a closed vent system capable of capturing and transporting leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 60.482-10, it is exempt from the requirements of 40 CFR 60.482-2(a) through (e). [40 CFR 60.482-2(f)] Federally Enforceable Through Title V Permit
77. Any pump in PLLS that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2(a) and 40 CFR 60.482-2(d)(4) through (6) if: 1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2(a); and 2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2(c) if a leak is detected. [40 CFR 60.482-2(g)] Federally Enforceable Through Title V Permit
78. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2(a)(2) and (d)(4) and the daily requirements of 40 CFR 60.482-2(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2(h)] Federally Enforceable Through Title V Permit
79. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(a)] Federally Enforceable Through Title V Permit

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80. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485(c). [40 CFR 60.482-4(b)] Federally Enforceable Through Title V Permit
81. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10 is exempted from the requirements of 40 CFR 60.482-4(a) and (b). [40 CFR 60.482-4(c)] Federally Enforceable Through Title V Permit
82. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the 40 CFR 60.482-4(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9. [40 CFR 60.482-4(d)] Federally Enforceable Through Title V Permit
83. Except for in-situ sampling systems and sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 40 CFR 60.482-5(b)(1), (2), (3), and (4). [40 CFR 60.482-5(a), (b), and (c)] Federally Enforceable Through Title V Permit
84. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times. [40 CFR 60.482-6(a) and (c)] Federally Enforceable Through Title V Permit
85. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 CFR 60.482-6(b)] Federally Enforceable Through Title V Permit
86. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 40 CFR 60.482-6(a), (b) and (c). [40 CFR 60.482-6(d)] Federally Enforceable Through Title V Permit
87. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6(a) through (c) are exempt from the requirements of 40 CFR 60.482-6(a) through (c). [40 CFR 60.482-6(e)] Federally Enforceable Through Title V Permit
88. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b) and shall comply with 40 CFR 60.482-7(b) through (e), except as provided in 40 CFR 60.482-7(f), (g), and (h), 40 CFR 60.483-1, 40 CFR 60.483-2, and 40 CFR 60.482-1(c). A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-7(a) and (b)] Federally Enforceable Through Title V Permit
89. Any valve in gas/vapor service or in light liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7(c)] Federally Enforceable Through Title V Permit
90. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 40 CFR 60.482-7(e)(1), (2), (3), and (4), where practicable. [40 CFR 60.482-7(d) and (e)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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91. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7(a) if the valve meets the requirements specified in 40 CFR 60.482-7(f)(1), (2), and (3). [40 CFR 60.482-7(f)] Federally Enforceable Through Title V Permit
92. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7(a); and 2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7(g)] Federally Enforceable Through Title V Permit
93. Any valve in gas/vapor service or in light liquid service that is designated, as described in 40 CFR 60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: 1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; 2) The process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 40 CFR 60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor; and 3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7(h)] Federally Enforceable Through Title V Permit
94. The owner or operator may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 40 CFR 60.483-1 and 60.483-2. [40 CFR 60.592(b)] Federally Enforceable Through Title V Permit
95. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: 1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485(b) and shall comply with the requirements of 40 CFR 60.482-8(b) through (d); or 2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak. A leak is detected if an instrument reading of 10,000 ppm or greater is measured. [40 CFR 60.482-8(a) and (b)] Federally Enforceable Through Title V Permit
96. When a leak is detected in pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-7(e). [40 CFR 60.482-8(c) and (d)] Federally Enforceable Through Title V Permit
97. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. [40 CFR 60.482-10(b)] Federally Enforceable Through Title V Permit
98. For closed vent systems and control devices, enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. [40 CFR 60.482-10(c)] Federally Enforceable Through Title V Permit
99. Flares used to comply with Subpart GGG shall comply with the requirements of 40 CFR 60.18. [40 CFR 60.482-10(d)] Federally Enforceable Through Title V Permit
100. Owners or operators of control devices used to comply with the provisions of Subpart GGG shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.482-10(e)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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101. Except as provided in 40 CFR 60.482-10(i) through (k), each closed vent system used to comply with the provisions of Subpart GGG shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10(f)(1) and (f)(2). Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10(h). A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 15 calendar days after the leak is detected. [40 CFR 60.482-10(f) and (g)] Federally Enforceable Through Title V Permit
102. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown. [40 CFR 60.482-10(h)] Federally Enforceable Through Title V Permit
103. If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2). [40 CFR 60.482-10(i)] Federally Enforceable Through Title V Permit
104. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(j)(1) and (j)(2). [40 CFR 60.482-10(j)] Federally Enforceable Through Title V Permit
105. Any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(k)(1) through (k)(3). [40 CFR 60.482-10(k)] Federally Enforceable Through Title V Permit
106. The owner or operator shall record the following information: 1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment; 2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment; 3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486(c); 4) For each inspection conducted in accordance with 40 CFR 60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and 5) For each visual inspection conducted in accordance with 40 CFR 60.482-10(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482-10(l)] Federally Enforceable Through Title V Permit
107. Closed vent systems and control devices used to comply with provisions Subpart GGG shall be operated at all times when emissions may be vented to them. [40 CFR 60.482-10(m)] Federally Enforceable Through Title V Permit
108. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485, except as provided in 40 CFR 60.8(b). [40 CFR 60.485(a)] Federally Enforceable Through Title V Permit
109. The owner or operator shall determine compliance with the standards in 40 CFR 60.482, 60.483, and 60.484 as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (i) Zero air (less than 10 ppm of hydrocarbon in air); and (ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [40 CFR 60.485(b)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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110. The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows: 1) The requirements of 40 CFR 60.485(b) shall apply. 2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485(c)] Federally Enforceable Through Title V Permit
111. The owner or operator shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: 1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment; 2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid; and 3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, the previous two procedures as specified in 40 CFR 60.485(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485(d)] Federally Enforceable Through Title V Permit
112. The owner or operator shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply: 1) The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 degrees C (1.2 in. H₂O at 68 degrees F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference as seen in 40 CFR 60.17) shall be used to determine the vapor pressures; 2) The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 degrees Celsius is equal to or greater than 20 percent by weight; and 3) The fluid is a liquid at operating conditions. [40 CFR 60.485(e)] Federally Enforceable Through Title V Permit
113. Samples used in conjunction with 40 CFR 60.485(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare. [40 CFR 60.485(f)] Federally Enforceable Through Title V Permit
114. The owner or operator shall determine compliance with the standards of flares as specified in 40 CFR 60.485(g)(1), (2), (3), (4), (5), (6), and (7). [40 CFR 60.485(g)] Federally Enforceable Through Title V Permit
115. An owner or operator of more than one affected facility subject to the provisions Subpart GGG may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486(a)] Federally Enforceable Through Title V Permit
116. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following requirements apply: 1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment; 2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7(c) and no leak has been detected during those 2 months; and 3) The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486(b)] Federally Enforceable Through Title V Permit
117. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location: 1) The instrument and operator identification numbers and the equipment identification number; 2) The date the leak was detected and the dates of each attempt to repair the leak; 3) Repair methods applied in each attempt to repair the leak; 4) "Above 10,000" if the maximum instrument reading measured by the methods specified in 40 CFR 60.485(a) after each repair attempt is equal to or greater than 10,000 ppm; 5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; 6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown; 7) The expected date of successful repair of the leak if a leak is not repaired within 15 days; 8) Dates of process unit shutdown that occur while the equipment is unrepaired; and 9) The date of successful repair of the leak. [40 CFR 60.486(c) and District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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118. The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10 shall be recorded and kept in a readily accessible location: 1) Detailed schematics, design specifications, and piping and instrumentation diagrams; 2) The dates and descriptions of any changes in the design specifications; 3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring; 4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame; and 5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5. [40 CFR 60.486(d)] Federally Enforceable Through Title V Permit
119. The following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for equipment subject to the requirements of Subpart GGG; 2) (i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f). (ii) The designation of equipment as subject to the requirements of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f) shall be signed by the owner or operator; 3) A list of equipment identification numbers for pressure relief devices required to comply with ¹ 60.482-4; 4) (i) The dates of each compliance test as required in 40 CFR 60.482-2(e), 60.482-3(i), ¹ 60.482-4, and 60.482-7(f). (ii) The background level measured during each compliance test. (iii) The maximum instrument reading measured at the equipment during each compliance test; and 5) A list of identification numbers for equipment in vacuum service. [40 CFR 60.486(e)] Federally Enforceable Through Title V Permit
120. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7(g) and (h) and to all pumps subject to the requirements of 40 CFR 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location: 1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump; and 2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486(f)] Federally Enforceable Through Title V Permit
121. The following information shall be recorded for valves complying with 40 CFR 60.483-2: 1) A schedule of monitoring; 2) The percent of valves found leaking during each monitoring period. [40 CFR 60.486(g)] Federally Enforceable Through Title V Permit
122. The following information shall be recorded in a log that is kept in a readily accessible location: 1) Design criterion required in 40 CFR 60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and 2) Any changes to this criterion and the reasons for the changes. [40 CFR 60.486(h)] Federally Enforceable Through Title V Permit
123. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480(d): 1) An analysis demonstrating the design capacity of the affected facility; 2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and 3) An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486(i)] Federally Enforceable Through Title V Permit
124. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 60.486(j)] Federally Enforceable Through Title V Permit
125. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to Subpart GGG. [District 40 CFR 60.486(k)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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126. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486: 1) Process unit identification; 2) For each month during the semiannual reporting period, i) Number of valves for which leaks were detected as described in 40 CFR 60.482-7(b) or 40 CFR 60.483-2, (ii) Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7(d)(1), (iii) Number of pumps for which leaks were detected as described in 40 CFR 60.482-2(b) and (d)(6)(i), (iv) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2(c)(1) and (d)(6)(ii), (v) Number of compressors for which leaks were detected as described in 40 CFR 60.482-3(f), (vi) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3(g)(1), and (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible; 3) Dates of process unit shutdowns which occurred within the semiannual reporting period; 4) Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 40 CFR 60.487 (a) and (b), or subsequent revisions to the initial report. [40 CFR 60.487(c)] Federally Enforceable Through Title V Permit
127. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1 and 60.483-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487(d)] Federally Enforceable Through Title V Permit
128. An owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of Subpart GGG except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487(e)] Federally Enforceable Through Title V Permit
129. The semiannual reporting requirements of 40 CFR 60.487(a), (b), and (c) remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of 40 CFR 60.487(a), (b), and (c), provided that they comply with the requirements established by the State. [40 CFR 60.487(f)] Federally Enforceable Through Title V Permit
130. Compressors are exempt from the standards of Subpart GGG if the owner or operator demonstrates that a compressor is in hydrogen service. Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service. For a piece of equipment to be considered in hydrogen service, it must be determined that the percent hydrogen content can be reasonably expected always to exceed 50 percent by volume. For purposes of determining the percent hydrogen content in the process fluid that is contained in or contacts a compressor, procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used. An owner or operator may use engineering judgment demonstrate that the percent content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume. When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, however, the procedures that conform to the general method described in ASTM E-260, E-168, or E-169 shall be used to resolve the disagreement. If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only after following the procedures that conform to the general method described in ASTM E-260, E-168, or E-169. [40 CFR 60.593(b)] Federally Enforceable Through Title V Permit
131. Any existing reciprocating compressor that becomes an affected facility under provisions of 40 CFR 60.14 or 40 CFR 60.15 is exempt from 40 CFR 60.482-3 (a), (b), (c), (d), (e), and (h) provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3 (a), (b), (c), (d), (e), and (h). [40 CFR 60.593(c)] Federally Enforceable Through Title V Permit
132. An owner or operator may use the following provision in addition to 40 CFR 60.485(e): Equipment is in light liquid service if the percent evaporated is greater than 10 percent at 150 degrees C as determined by ASTM Method D86-78, 82, 90, 95, or 96. [40 CFR 60.593(d)] Federally Enforceable Through Title V Permit
133. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2 to 40 CFR 60.482-10 if it is identified as required in 40 CFR 60.486(e)(5). [40 CFR 60.482-1(d)] Federally Enforceable Through Title V Permit

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134. The operator shall not burn in any fuel gas combustion device any fuel that contains hydrogen sulfide (H₂S) in excess of 0.10 gr/dscf (230 mg/dscm) [40 CFR 60.104(a)(1)] Federally Enforceable Through Title V Permit
135. For fuel gas combustion devices, a continuous emissions monitoring system shall be installed, calibrated, operated, and reported according to EPA guidelines as specified under 40 CFR 60.105(a)(3). CEM results shall be calculated on a rolling three (3) hour basis. [40 CFR 60, 60.105(a)(3)] Federally Enforceable Through Title V Permit
136. For fuel gas combustion devices, operator shall report all rolling 3-hour periods during which the average concentration of H₂S as measured by the H₂S continuous monitoring system exceeds 0.10 gr/dscf (230 mg/dscm) or during which the average concentration of SO₂ as measured by the SO₂ continuous monitoring system exceeds 20 ppm (dry basis, zero percent excess air). [40 CFR 60.105(e)(3)] Federally Enforceable Through Title V Permit
137. Operator shall determine compliance with the H₂S standard using EPA Methods 11, 15, 15A, or 16. [40 CFR 60.106(e)] Federally Enforceable Through Title V Permit
138. For any periods for which sulfur dioxide or oxides emissions data are not available, the operator shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [40 CFR 60.107(d)] Federally Enforceable Through Title V Permit
139. The owner or operator shall submit the reports required under this subpart to the District semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator shall submit a signed statement certifying the accuracy and completeness of the information contained in the report. [40 CFR 60.107(e) and 60.107(f)] Federally Enforceable Through Title V Permit
140. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NO_x emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NO_x emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
141. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4320] Federally Enforceable Through Title V Permit
142. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
143. Compliance with permit conditions in the Title V permit shall be deemed compliance with 40 CFR 60 Subpart GGG. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
144. The operator shall be in compliance with the applicable requirement in Sections 5.4.1 of District Rule 4320 (Adopted 10/16/2008) no later than July 1, 2013. [District Rule 4320, 5.4.1] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-33-372-3

EXPIRATION DATE: 08/31/2016

SECTION: 27 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

LIQUEFIED PETROLEUM GAS AND NATURAL GASOLINE EAST AND WEST TRUCK LOADING/UNLOADING LANES WITH SEVEN PUMPS SERVED BY VAPOR RECOVERY SYSTEM

PERMIT UNIT REQUIREMENTS

1. Organic liquid transfer shall be with vapor control such that VOC emissions do not exceed 0.08 lb per 1000 gallons of liquid loaded. [District Rule 4624, 4.1] Federally Enforceable Through Title V Permit
2. Vacuum purge system shall be activated prior to transport tank disconnect to displace organic vapors to vapor recovery system. [District Rule 4624] Federally Enforceable Through Title V Permit
3. Operator shall ensure all required source testing conforms to the compliance testing procedures described in District Rule 1081 (as amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
4. The vapor collection and control system shall operate such that the pressure in the delivery tank being loaded does not exceed 18 inches water column pressure and 6 inches water column vacuum. This requirement shall not apply to the transfer of liquid petroleum gas. [District Rules 4624, 5.4] Federally Enforceable Through Title V Permit
5. All delivery tanks which previously contained organic liquids, including gasoline, with a TVP greater than 1.5 psia at loading conditions shall be filled only at Class 1 loading facilities using bottom loading equipment with a vapor collection and control system operating such that VOC emissions do not exceed 0.08 lb/1000 gallons loaded. [District Rules 4624, 5.5] Federally Enforceable Through Title V Permit
6. Construction, reconstruction, or expansion of any top loading facility shall not be allowed. [District Rule 4624, 5.7] Federally Enforceable Through Title V Permit
7. Transfer and vapor collection equipment shall be designed, installed, maintained and operated such that there are no leaks or excess organic liquid drainage at disconnections. A leak shall be defined as the dripping of organic compounds at a rate of more than three drops per minute or the detection of organic compounds, in excess of 10,000 ppm as methane measured at a distance of one centimeter from the potential source in accordance with EPA Method 21. Excess liquid drainage shall be defined as exceeding 10 mL, per average of 3 consecutive disconnects. [District Rule 4624, 3.13, 3.17, 5.6] Federally Enforceable Through Title V Permit
8. During the transfer of organic liquids, the operator shall perform and record the results of monthly leak inspections of the loading and vapor collection equipment at each transfer rack. Leak inspections shall be conducted using sight, sound, or smell. Once each calendar quarter, in lieu of the regular monthly monitoring, the operator shall monitor the vapor collection and control system and each transfer rack using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rule 4624, 5.9.1 and 6.3.8, and 40 CFR 60.502(j)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

9. Corrective steps shall be taken at any time the operator observes excess drainage at disconnect. In addition, the operator shall perform and record the results of drainage inspections at disconnect conducted on a quarter of the loading arms every calendar quarter. However, if one or more excess drainage condition is found during a quarterly inspection, the inspection frequency shall change to quarterly for all loading arms. If no excess drainage is found after four consecutive quarterly inspection of all loading arms, the inspection frequency shall return to inspections of a quarter of the loading arms every calendar quarter. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. Compliance shall be demonstrated by collecting all drainage at disconnect in a spouted container. The drainage shall be transferred to a graduated cylinder and the volume determined within one (1) minute of collection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. Each leaking component shall be repaired or replaced within 72 hours after detection. If the leaking component cannot be repaired or replaced within 72 hours, it shall be taken out of service until such time as it is repaired or replaced. Components taken out of service shall be repaired or replaced within 15 calendar days of leak detection. [District Rule 4624, 5.9.3 and 40 CFR 60.502(j)] Federally Enforceable Through Title V Permit
12. The permittee shall maintain an inspection log containing at least the following: A) dates of leak and drainage inspections, B) leak determination method, C) findings, D) corrective action (date each leak or excess drainage condition repaired, reasons for any leak repair interval in excess of 15 days), and E) inspector name and signature. [District Rule 4624, 6.1.3 and 40 CFR 60.505(c)] Federally Enforceable Through Title V Permit
13. VOC emissions shall be determined annually using 40CFR 60.503 "Test Methods and Procedures," and EPA Reference Methods 2A, 2B, 25A and 25B and ARB Method 432, or ARB Method 2-4. [District Rule 4624, 6.2.2] Federally Enforceable Through Title V Permit
14. The vapor collection and control system (VCCS) shall be tested annually to demonstrate the pressure in the delivery tanks being loaded complies with the requirements specified in this permit. Compliance shall be determined by calibrating and installing a liquid manometer, magnehelic device, or other instrument demonstrated to be equivalent, capable of measuring up to 500 mm water gauge pressure with a precision of 2.5 mm water gauge, on the terminal's VCCS at a pressure tap as close as possible to the connection with the product tank truck. The highest instantaneous pressure measurement as well as all pressure measurements at 5 minute intervals during delivery vessel loading must be recorded. Every loading position must be tested at least once during the annual performance test. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
15. The vapor collection and control system shall consist of a device which returns collected vapors to a product storage tank only. The system shall not include a device which incinerates, adsorbs or otherwise treats collected vapors. [District Rule 2520, 9.1] Federally Enforceable Through Title V Permit
16. Loading of a delivery vessel shall discontinue if its pressure relief valve opens. Corrective action shall be taken should this condition occur. [District Rule 2520, 9.1] Federally Enforceable Through Title V Permit
17. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1 wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455, 4.1 & 4.2] Federally Enforceable Through Title V Permit
18. The operator shall not use any component that leaks in excess of the allowable leak standards of this rule, or is found to be in violation of the provisions specified in Section 5.1.3. A component identified as leaking in excess of an allowable leak standard may be used provided it has been identified with a tag for repair, has been repaired, or is awaiting re-inspection after repair, within the applicable time period specified within the rule. [District Rule 4455, 5.1.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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19. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4455, 5.1.2] Federally Enforceable Through Title V Permit
20. The operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Sections 5.1.4 exist at the facility. [District Rule 4455, 5.1.3.1] Federally Enforceable Through Title V Permit
21. Except for annual operator inspection described in Section 5.1.3.2.3, any operator inspection that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall not constitute a violation of this rule if the leaking components are repaired as soon as practicable but not later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.1] Federally Enforceable Through Title V Permit
22. Leaking components detected during operator inspection pursuant Section 5.1.3.2.1 that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Section 5.1.4. [District Rule 4455, 5.1.3.2.2] Federally Enforceable Through Title V Permit
23. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Section 5.2.5, 5.2.6, 5.2.7, or 5.2.8) that demonstrates one or more of the conditions in Section 5.1.4 exist at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this rule. [District Rule 4455, 5.1.3.2.3] Federally Enforceable Through Title V Permit
24. A component shall be considered leaking if one or more of the conditions specified in Sections 5.1.4.1 through 5.1.4.4 of the rule exist at the facility. [District Rule 4455, 5.1.4] Federally Enforceable Through Title V Permit
25. The operator shall audio-visually inspect for leaks all accessible operating pumps, compressors and PRD in service at least once every 24 hours, except when operators do not report to the facility for that given 24 hours. Any identified leak that cannot be immediately repaired shall be reinspected within 24 hours using EPA Method 21. If a leak is found, it shall be repaired as soon as practical but not later than the time frame specified in Table 3 of the rule. [District Rule 4455, 5.2.1 & 5.2.2] Federally Enforceable Through Title V Permit
26. The operator shall inspect all components at least once every calendar quarter, except for inaccessible components, unsafe-to-monitor components and pipes. Inaccessible components, unsafe-to-monitor components and pipes shall be inspected in accordance with the requirements set forth in Sections 5.2.5, 5.2.6, and 5.2.7. New, replaced, or repaired fittings, flanges and threaded connections shall be inspected immediately after being placed into service. [District Rule 4455, 5.2.3, 5.2.4, 5.2.5, 5.2.6 & 5.2.7] Federally Enforceable Through Title V Permit
27. The operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually for a component type, provided the operator meets all the criteria specified in Sections 5.2.8.1 through 5.2.8.3 of the rule. This approval shall apply to accessible component types, specifically designated by the APCO, except pumps, compressors, and PRDs which shall continue to be inspected on a quarterly basis. [District Rule 4455, 5.2.8] Federally Enforceable Through Title V Permit
28. An annual inspection frequency approved by the APCO shall revert to quarterly inspection frequency for a component type if either the operator inspection or District inspection demonstrates that a violation of the provisions of Sections 5.1, 5.2 and 5.3 of the rule exists for that component type, or the APCO issued a Notice of Violation for violating any of the provisions of this rule during the annual inspection period for that component type. When the inspection frequency changes from annual to quarterly inspections, the operator shall notify the APCO in writing within five (5) calendar days after changing the inspection frequency, giving the reason(s) and date of change to quarterly inspection frequency. [District Rule 4455, 5.2.9 & 5.2.10] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

29. The operator shall initially inspect a process PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the time of the release. To insure that the process PRD is operating properly, and is leak-free, the operator shall re-inspect the process PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the release using EPA Method 21. If the process PRD is found to be leaking at either inspection, the PRD leak shall be treated as if the leak was found during quarterly operator inspections. [District Rule 4455, 5.2.11] Federally Enforceable Through Title V Permit
30. Except for process PRD, a component shall be inspected within 15 calendar days after repairing the leak or replacing the component using EPA Method 21. [District Rule 4455, 5.2.12] Federally Enforceable Through Title V Permit
31. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator's inspections is considered to be willful circumvention and is a violation of this rule. [District Rule 4455, 5.2.13] Federally Enforceable Through Title V Permit
32. Upon detection of a leaking component, the operator shall affix to that component a weatherproof readily visible tag that contains the information specified in Section 5.3.3. The tag shall remain affixed to the component until the leaking component has been repaired or replaced; has been re-inspected; and is found to be in compliance with the requirements of this rule. [District Rule 4455, 5.3.1, 5.3.2 & 5.3.3] Federally Enforceable Through Title V Permit
33. An operator shall minimize all component leaks immediately to the extent possible, but not later than one (1) hour after detection of leaks in order to stop or reduce leakage to the atmosphere. [District Rule 4455, 5.3.4] Federally Enforceable Through Title V Permit
34. If the leak has been minimized but the leak still exceeds the applicable leak standards of this rule, an operator shall repair or replace the leaking component, vent the leaking component to a closed vent system, or remove the leaking component from operation as soon as practicable but not later than the time period specified in Table 3. For each calendar quarter, the operator may be allowed to extend the repair period as specified in Table 3, for a total number of leaking components, not to exceed 0.05 percent of the number of components inspected, by type, rounded upward to the nearest integer where required. [District Rule 4455, 5.3.5] Federally Enforceable Through Title V Permit
35. If the leaking component is an essential component or a critical component and which cannot be immediately shut down for repairs, the operator shall minimize the leak within one hour after detection of the leak. If the leak has been minimized, but the leak still exceeds any of the applicable leak standards of this rule, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4455, 5.3.6] Federally Enforceable Through Title V Permit
36. For any component that has incurred five repair actions for major gas leaks or major liquid leaks, or any combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall comply with at least one of the requirements specified in Sections 5.3.7.1, 5.3.7.2, 5.3.7.3, or 5.3.7.4 by the applicable deadlines specified in Sections 5.3.7.5 and 5.3.7.6. If the original leaking component is replaced with a new like-in-kind component before incurring five repair actions for major leaks within 12-consecutive months, the repair count shall start over for the new component. An entire compressor or pump need not be replaced provided the compressor part(s) or pump part(s) that have incurred five repair actions as described in Section 5.3.7 are brought into compliance with at least one of the requirements of Sections 5.3.7.1 through 5.3.7.6. [District Rule 4455, 5.3.7] Federally Enforceable Through Title V Permit
37. The operator shall monitor process PRD by using electronic process control instrumentation that allows for real time continuous parameter monitoring or by using telltale indicators for the process PRD where parameter monitoring is not feasible. [District Rule 4455, 5.4.1] Federally Enforceable Through Title V Permit
38. After a release from a process PRD in excess of 500 pounds of VOC in a continuous 24-hour period, the operator shall immediately conduct a failure analysis and implement corrective actions as soon as practicable but not later than 30 days to prevent the reoccurrence of similar release. For refineries processing greater than 20,000 barrels of crude oil per day, any subsequent release in excess of 500 pounds of VOC within a continuous 24-hour period shall be subject to the requirements of Section 5.4.5. [District Rule 4455, 5.4.3 & 5.4.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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39. The operator of a refinery processing greater than 20,000 barrels of crude oil per day shall connect all process PRDs serving that process equipment to an APCO-approved closed vent system as defined in Section 3.0 if any of the conditions specified in Sections 5.4.5.1 and 5.4.5.2 occurs. Process PRDs subject to the provisions of Section 5.4.5 shall be connected to an APCO-approved closed-vent system as soon as practicable, but no later than the first turnaround after the requirement to connect becomes effective. [District Rule 4455, 5.4.5] Federally Enforceable Through Title V Permit
40. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the APCO that enables an operator or District personnel to locate each individual component. The operator shall replace tags or labels that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. The operator shall comply with the requirements of Sections 6.1.4 if there is any change in the description of major components or critical components. [District Rule 4455, 5.5.1 & 5.5.2] Federally Enforceable Through Title V Permit
41. The operator shall keep a copy of the operator management plan at the facility and make it available to the APCO, ARB and US EPA upon request. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved operator management plan. [District Rule 4455, 6.1.2 & 6.1.4] Federally Enforceable Through Title V Permit
42. The operator shall maintain an inspection log containing, at a minimum, 1) total number of components inspected, and total number and percentage of leaking components found by component types, 2) location, type, name or description of each leaking component, and description of any unit where the leaking component is found, 3) date of leak detection and method of leak detection, 4) for gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak, 5) date of repair, replacement, or removal from operation of leaking components, 6) identification and location of essential component and critical components found leaking that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 7) methods used to minimize the leak from essential components and critical components that cannot be repaired until the next process unit turnaround or not later one year after leak detection, whichever comes earlier, 8) after the component is repaired or is replaced, the date of reinspection and the leak concentration in ppmv, 9) inspector's name, business mailing address, and business telephone number, and 10) the facility operator responsible for the inspection and repair program shall sign and date the inspection log certifying the accuracy of the information recorded in the log. [District Rule 4455, 6.2.1] Federally Enforceable Through Title V Permit
43. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, analyzer reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. [District Rule 4455, 6.2.3] Federally Enforceable Through Title V Permit
44. The operator shall notify the APCO, by telephone or other methods approved by the APCO, of any process PRD release described in Sections 5.4.4 and 5.4.5, and any release in excess of the reportable quantity limits as stipulated in 40 CFR, Part 117, Part 302 and Part 355, including any release in excess of 100 pounds of VOC, within one hour of such occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence. [District Rule 4455, 6.3.1] Federally Enforceable Through Title V Permit
45. The operator shall submit a written report to the APCO within thirty (30) calendar days following a PRD release subject to 6.3.1. The written report shall include 1) process PRD type, size, and location, 2) date, time and duration of the process PRD release, 3) types of VOC released and individual amounts, in pounds, including supporting calculations, 4) cause of the process PRD release, and 5) corrective actions taken to prevent a subsequent process PRD release. [District Rule 4455 6.3.2] Federally Enforceable Through Title V Permit
46. Copies of all records shall be retained for a minimum of five (5) years after the date of an entry. Such records shall be made available to the APCO, ARB, or US EPA upon request. [District Rule 4455, 6.2.2, 6.2.3 & 6.2.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

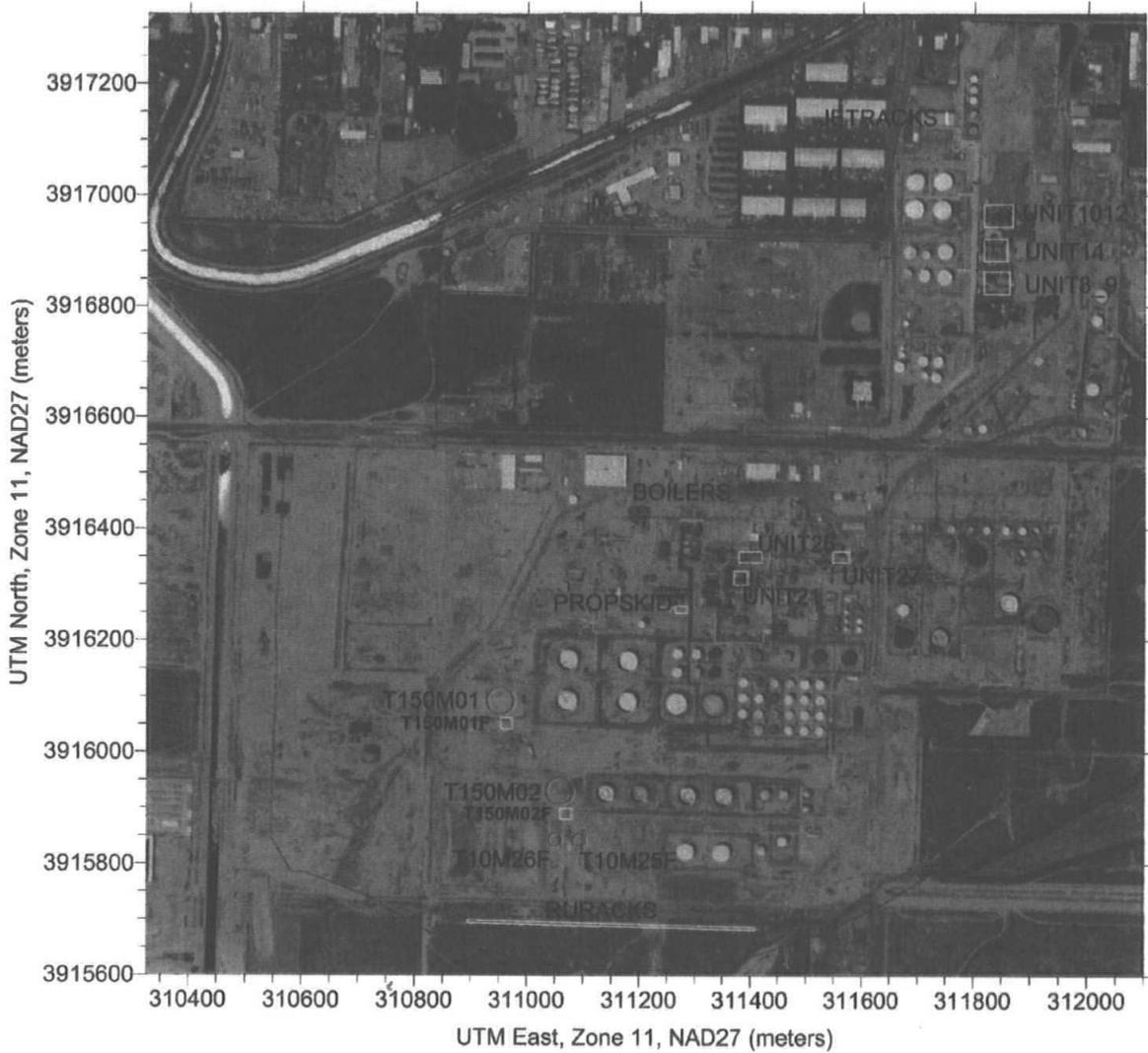
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47. Equivalent test methods other than specified in Sections 6.4.1 through 6.4.5 may be used provided such test methods have received prior approval from the US EPA, ARB, and APCO. [District Rule 4455, 6.4] Federally Enforceable Through Title V Permit
48. Measurements of gaseous leak concentrations shall be conducted according to US EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in US EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 4455, 6.4.1] Federally Enforceable Through Title V Permit
49. The VOC content shall be determined using American Society of Testing and Materials (ASTM) D 1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304 for liquids. [District Rule 4455, 6.4.2] Federally Enforceable Through Title V Permit
50. The percent by volume liquid evaporated at 150 C shall be determined using ASTM D 86. [District Rule 4455, 6.4.3] Federally Enforceable Through Title V Permit
51. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4455, 6.4.4] Federally Enforceable Through Title V Permit
52. Halogenated exempt compounds shall be analyzed by US EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources". [District Rule 4455, 6.4.5] Federally Enforceable Through Title V Permit
53. Compliance with these permit conditions in the Title V permit shall be deemed compliance with the following requirements: District Rule 4624 (amended December 20, 2007). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
54. Operator shall maintain all records of required monitoring data and support information for inspection for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

APPENDIX C
Figures

Figure D-2: Emission Source Locations

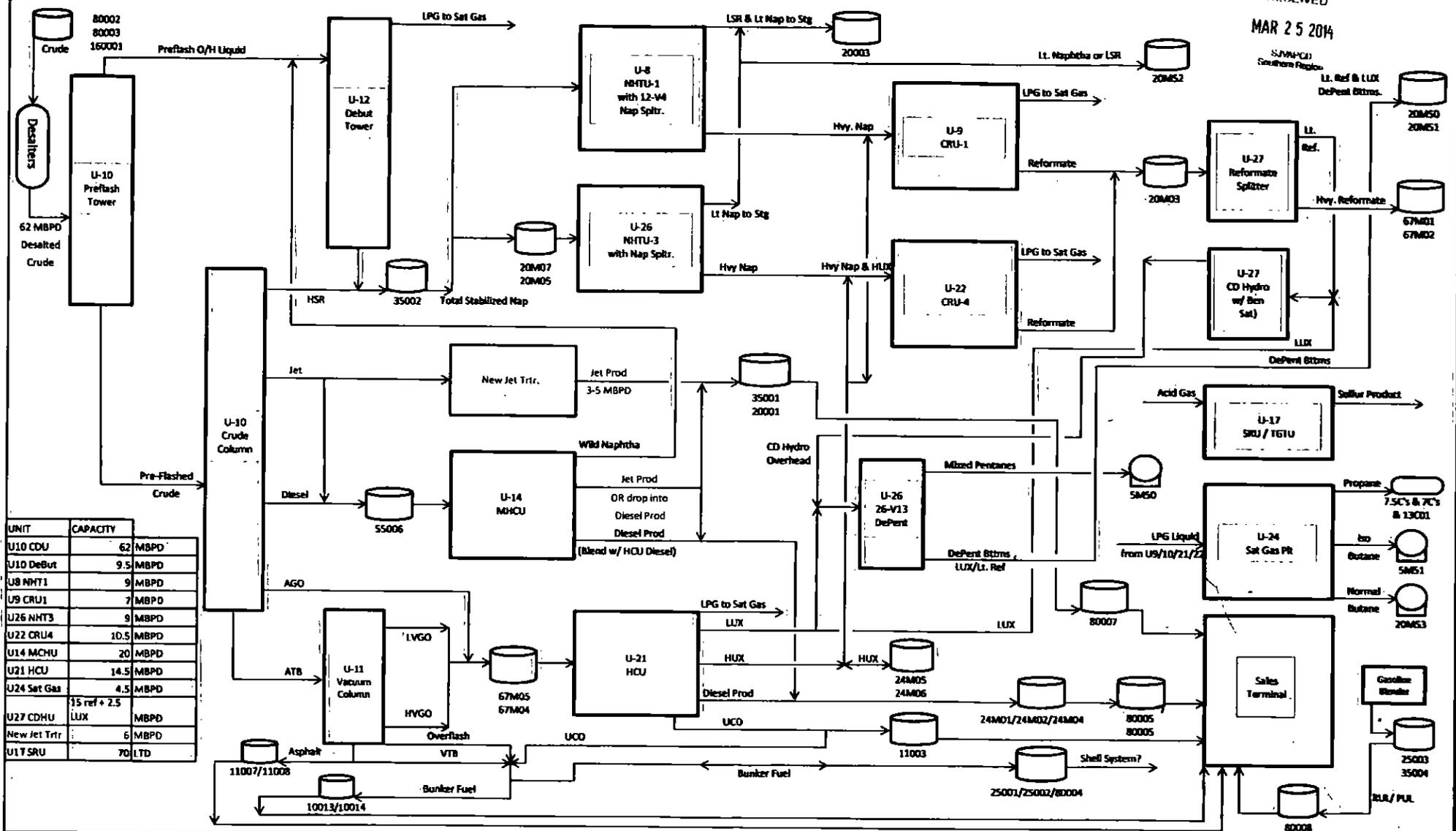


Key to Figure D-2

Source ID	Description	Source ID	Description
UNIT8_9	Units 8 and 9 Fugitives	RURACKS	Rail Unloading Rack Fugitives
UNIT1012	Units 10, 11, and 12 Fugitives	BOILERS	New Boilers #1, #2, #3
UNIT14	Unit 14 Fugitives	T10M25F	Tank 71-T10M25 Fugitives
UNIT21	Unit 21 Fugitives	T10M26F	Tank 71-T10M26 Fugitives
UNIT26	Unit 26 Fugitives	T150M01/F	Tank 71-T150M01/Fugitives
UNIT27	Unit 27 Fugitives	T150M02/F	Tank 71-T150M02/Fugitives
PROPSKID	Propane Refrigeration (Unit 25) Skid Fugitives	JETRACKS	Jet Fuel Loading Rack Fugitives

ALON Bakersfield Refinery Block Flow Diagram for Crude Flexibility Project (62 MBPD Baldon Crude)

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Southern Region



UNIT	CAPACITY
U10 CDU	62 MBPD
U10 DeBut	9.5 MBPD
U8 NHT1	9 MBPD
U9 CRU1	7 MBPD
U26 NHT3	9 MBPD
U22 CRU4	10.5 MBPD
U14 MCHU	20 MBPD
U21 HCU	14.5 MBPD
U24 Set Gas	4.5 MBPD
U27 CDHU	35 ref + 2.5 LUX MBPD
New Jet Trtr	6 MBPD
U17 SRU	70 LTD

APPENDIX D
BACT Analysis

Fixed Roof Tank Top Down BACT Analysis (S-33-444-0 & '-445-0)

VOC emissions may occur when the produced fluids enter the oil storage tanks.

Step 1 - Identify All Possible Control Technologies

SJVAPCD BACT Guideline 7.3.2 lists the controls that are considered potentially applicable to fixed-roof organic liquid storage or processing tank $\geq 5,000$ bbl tank capacity. The VOC control measures are summarized below.

Technologically feasible:

99% control (Transfer of noncondensable vapors to gas pipeline; reinjection to formation (if appropriate wells are available); thermal or catalytic oxidizer; carbon adsorption; or equal).

Achieved in Practice:

99% Control (Waste gas incinerated in steam generator, heater treater or other fired equipment and inspection and maintenance program, or equal)

Step 2 - Eliminate Technologically Infeasible Options

All of the above identified control options are technologically feasible.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

99% control (Transfer of noncondensable vapors to gas pipeline; reinjection to formation (if appropriate wells are available); thermal or catalytic oxidizer; carbon adsorption; or equal).

Step 4 - Cost Effectiveness Analysis

The applicant is proposing the most effective control technology – collection and control system with collected gas directed to a fuel gas system incinerated in fuel burning equipment and inspection and maintenance program at 99% control. Therefore, a cost effectiveness analysis is not required.

Step 5 - Select BACT

Collection and control system with collected gas directed to a fuel gas system incinerated in fuel burning equipment and inspection and maintenance program at 99% control.

**San Joaquin Valley
Unified Air Pollution Control District**

Best Available Control Technology (BACT) Guideline 7.3.2*

Last Update 10/1/2002

**Petroleum and Petrochemical Production - Fixed Roof Organic
Liquid Storage or Processing Tank, = or > 5,000 bbl Tank capacity ****

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	50% control, (Waste gas incinerated at scrubbed steam generator, heater treater or incinerator or compressed and injected in injection wells and inspection and maintenance program, or equal)	99% control (Transfer of noncondensable vapors to gas pipeline; reinjection to formation (if appropriate wells are available); or equal).	
SOx		95% control (Vapor collection system and either a) sulfur removal by scrubber with inspection and maintenance program or b) vapors no greater than 0.2 gr S/100 dscf; transfer of non-condensable vapors to gas pipeline; reinjection to formation (if appropriate wells are available), or equal)	
VOC	99% Control (Waste gas incinerated in steam generator, heater treater or other fired equipment and inspection and maintenance program, or equal)	99% control (Transfer of noncondensable vapors to gas pipeline; reinjection to formation (if appropriate wells are available); thermal or catalytic oxidizer; carbon adsorption; or equal).	

** Converted from Determinations 7.1.4 and 7.1.12 (10/01/02).

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State implementation Plan.

***This is a Summary Page for this Class of Source**

Floating Roof Tank Top Down BACT Analysis (S-33-446 & '447)

1. BACT Analysis for VOC Emissions:

a. Step 1 - Identify all control technologies

The SJVUAPCD BACT Clearinghouse guideline 7.3.3 identifies BACT for VOC emissions from a floating roof organic liquid storage tank ≥ 471 bbl, ≥ 0.5 psia TVP as follows:

- 1) > 95% Control (Dual wiper seal, with drip curtain or primary metal shoe seal with secondary wiper seal, or equal, with domed roof) – Technologically Feasible
- 2) > 95% Control (Dual wiper seal, with drip curtain or primary metal shoe seal with secondary wiper seal, or equal.) – Technologically Feasible
- 3) > 95% Control (Primary metal shoe seal with secondary wiper seal, or equal). – Achieved in Practice

b. Step 2 - Eliminate technologically infeasible options

There are no technologically infeasible options to eliminate from step 1.

c. Step 3 - Rank remaining options by control effectiveness

- 1) > 95% Control (Dual wiper seal, with drip curtain or primary metal shoe seal with secondary wiper seal, or equal, with domed roof) – Technologically Feasible
- 2) > 95% Control (Dual wiper seal, with drip curtain or primary metal shoe seal with secondary wiper seal, or equal.) – Technologically Feasible
- 3) > 95% Control (Primary metal shoe seal with secondary wiper seal, or equal). – Achieved in Practice

d. Step 4 - Cost Effectiveness Analysis

The applicant has proposed installing two internal (domed) floating roof tanks equipped with a primary metal shoe seal with secondary wiper seal. Since these technologies have the same expected control efficiencies and a primary metal shoe seal with secondary wiper seal is both achieved in practice and technologically feasible, it will be considered the most effective option and a cost effective analysis will not be necessary.

e. Step 5 – Selection of BACT

The proposed use of an internal (domed) floating roof equipped with a primary metal shoe seal with secondary wiper seal resulting in greater than 95% VOC emissions control efficiency satisfies BACT requirements for this operation.

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 7.3.3*

Last Update 10/1/2002

**Petroleum and Petrochemical Production - Floating Roof Organic
Liquid Storage or Processing Tank, = or > 471 bbl Tank capacity, = or > 0.5 psia
TVP**

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	95% control (Primary metal shoe seal with secondary wiper seal, or equal)	95% Control (Dual wiper seal with drip curtain or primary metal shoe seal with secondary wiper seal, or equal.)	

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

***This is a Summary Page for this Class of Source**

Railroad Car Unloading Rack Top Down BACT Analysis (S-33-440-0)

1. BACT Analysis for VOC Emissions:

a. Step 1 - Identify all control technologies

The SJVUAPCD BACT Clearinghouse guideline 7.1.14, identifies BACT for VOC emissions from a light crude oil unloading rack as follows:

- 1) Use of dry-break couplers or equivalent on unloading lines with an average disconnect loss of no greater than 8 mL liquid per disconnect, and fugitive components subject to Rules 4409 or 4455 as applicable – Technologically Feasible
- 2) Use of dry-break couplers or equivalent on unloading lines with an average disconnect loss of no greater than 10 mL liquid per disconnect, and fugitive components subject to Rules 4409 or 4455 as applicable – Achieved in Practice

b. Step 2 - Eliminate technologically infeasible options

There are no technologically infeasible options to eliminate from step 1.

c. Step 3 - Rank remaining options by control effectiveness

- 1) Use of dry-break couplers or equivalent on unloading lines with an average disconnect loss of no greater than 8 mL liquid per disconnect, and fugitive components subject to Rules 4409 or 4455 as applicable – Technologically Feasible
- 2) Use of dry-break couplers or equivalent on unloading lines with an average disconnect loss of no greater than 10 mL liquid per disconnect, and fugitive components subject to Rules 4409 or 4455 as applicable – Achieved in Practice

d. Step 4 - Cost Effectiveness Analysis

The applicant is proposing dry break couplers with an average disconnect loss of no greater than 3.2 mL liquid per disconnect. This is the highest ranking technologically feasible option, therefore a cost effective analysis will not be necessary.

e. Step 5 – Selection of BACT

The proposed use of dry break couplers with an average disconnect loss of no greater than 3.2 mL liquid per disconnect (neither of Rules 4409 or 4455 are applicable to this operation) satisfies BACT for this operation. Fugitive components are subject to Rules 4409 or 4455 as applicable

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 7.1.14*

Last Update 9/21/2006

Light Crude Oil Unloading Rack

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	use of dry-break couplers or equivalent on unloading lines with an average disconnect loss of no greater than 10 ml liquid per disconnect, and fugitive components subject to Rules 4409 or 4455 as applicable	use of dry-break couplers or equivalent on unloading lines with an average disconnect loss of no greater than 8 ml liquid per disconnect, and fugitive components subject to Rules 4409 or 4455 as applicable	

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

***This is a Summary Page for this Class of Source**

Boiler Top Down BACT Analysis (S-33-441-0, '-442-0 and '-443-0)

1. BACT Analysis for NO_x Emissions:

Step 1 - Identify All Possible Control Technologies

In the absence of a SJVAPCD BACT Guideline, the District utilizes the most recent prohibitory rule, which in this case is Rule 4320. From Table 1.D.2, BACT for Refinery Units is as follows:

1. **Achieved-In-Practice:** 6.0 ppmvd @ 3% O₂ (0.007 lb/MMBtu/hr) Ultra-Low NO_x main burner system and a natural gas
2. **Technologically Feasible:** 5.0 ppmvd @ 3% O₂ (0.0062 lb/MMBtu/hr) Selective Catalytic Reduction,
3. **Technologically Feasible:** 5.0 ppmvd @ 3% O₂ Low Temperature Oxidation per SCAQMD

Step 2 - Eliminate Technologically Infeasible Options

None are infeasible.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

- **Technologically Feasible:** 5.0 ppmvd @ 3% O₂ (0.0062 lb/MMBtu/hr) Selective Catalytic Reduction
- **Technologically Feasible:** 5.0 ppmvd @ 3% O₂ Low Temperature Oxidation per SCAQMD
- **Achieved-In-Practice:** 6.0 ppmvd @ 3% O₂ (0.0108 lb/MMBtu/hr) Ultra-Low NO_x main burner system

Step 4 - Cost Effectiveness Analysis

A. Technologically Feasible: 5.0 ppmvd @ 3% O₂ (0.0062 lb/MMBtu/hr) Selective Catalytic Reduction

Assumptions:

District standard assumed to be a NO_x emission rate of 9 ppmv @ 3% O₂ in accordance with District Rule 4320.

A unit's maximum emissions are defined by the burner size multiplied by the emissions factor and a maximum annual operating schedule of 8,760 hr/year.

Calculations:

District Standard NO_x Emissions = 21 MMBtu/hr x 0.011 lb/MMBtu x 8,760 hrs/year
= 2024 lb/year

Tech. Feasible NO_x Emissions = 21 MMBtu/hr x 0.006 lb/MMBtu x 8,760 hrs/year
= 1104 lb/year

Capital Cost (provided by PCL Industrial Services, Inc. for project S1111824): **\$745,000** (includes all purchased equipment, taxes, freight, and installation of SCR for an 85.0 MMBtu/hr unit).

This cost will be adjusted to reflect the expected cost for a 21 MMBtu/hr capacity boiler using the "six-tenths" method (see reference below). This cost scaling method is typically applied to costs for the same type of equipment (i.e., steam generators) utilized in a similar process or operation (i.e., steam generating) with a different capacity. The scaled cost is calculated as follows:

$$\begin{aligned}\text{Cost Adjustment Factor}^1 &= (\text{Capacity}_{\text{New}}/\text{Capacity}_{\text{Old}})^{0.60} \\ &= [(21 \text{ MMBtu/hr})/(85 \text{ MMBtu/hr})]^{0.60} \\ &= 0.48\end{aligned}$$

$$\text{Adjusted SCR Cost} = (\$745,000)(0.48) = \$357,600$$

¹ *Estimating Equipment Costs by Scaling: Cost Estimation (Chapter 4; Table 6), Plant Design and Economics for Chemical Engineers, McGraw-Hill, 1968.*

Equivalent Annual Capital Cost (Capital Recovery):

$$A = P \frac{i(1+i)^n}{(1+i)^n - 1} \quad \text{where;}$$

A = Equivalent Annual Control Equipment Capital Cost

P = Present value of the control equipment, including installation cost

i = interest rate (use 10%, or demonstrate why alternate is more representative of the specific operation).

n = equipment life (assume 10 years or demonstrate why alternate is more representative of the specific operation)

Where:

P = \$357,600

i = 10%,

n = 10 years

A = \$58,198

NO_x Reduction due to Selective Catalytic Reduction system:

Total reduction = Emissions_{15 ppm} - Emissions_{5 ppm}

Total reduction = 2024 lb/year - 1104 lb/year

Total reduction = 920 lb/year = 0.46 ton NO_x per year

Cost effectiveness:

Cost effectiveness = \$58,198 / 0.46 tpy

Cost effectiveness = \$126,517 / ton

The cost effectiveness is greater than the \$24,500/ton cost effectiveness threshold of the District BACT policy. Therefore the use of SCR with ammonia injection is not cost effective and is not required as BACT.

B. Technologically Feasible: 5.0 ppmvd @ 3% O₂ Low Temperature Oxidation

To our knowledge, there was only one instance of an installation of this technology. In the late 1990s one small boiler was installed in the SCAQMD in 1997. This installation was heavily subsidized with government funding. The District confirmed with SCAQMD staff that this boiler has since been removed from service and that no other installations of LTO for similar size boilers exist in SCAQMD.

The original installation of a small boiler equipped with LTO in the SCAQMD, resulted in NO_x emission levels equivalent to emission levels achievable with selective catalytic reduction (SCR). SCR is a mature technology with a large installed base and a long operational history. Additionally, the costs of installing SCR presumed to be considerably less than the installation of LTO.

Further, the District's 2012 PM 2.5 attainment plan concluded that LTO installation on boilers is cost prohibitive for installations that are not subsidized.

For the above reasons, LTO may no longer be commercially available for use on small boilers, is no more effective at reducing NO_x emissions, and is more costly than SCR the District did not evaluate the cost effectiveness of LTO for the subject boilers.

The District has evaluated the use of SCR for the subject units and determined that it was not a cost effective option; therefore, LTO would also not be cost effective.

Step 5 - Select BACT

The applicant is proposing the use of an Ultra-Low NO_x burner system capable, and required to, meet 6 ppmvd NO_x (corrected to 3% O₂). Which meets the BACT requirement for NO_x are met.

2. BACT Analysis for SO_x Emissions:

Step 1 - Identify All Possible Control Technologies

For classes and categories covered in the District's BACT Clearinghouse, the list of available control technologies shall be limited to those listed in the Clearinghouse. This boiler is covered under Guideline 1.1.2. The SO_x control technologies are,

Control Option 1: Natural gas fuel and LPG Backup or propane fired.

Step 2 - Eliminate Technologically Infeasible Options

The option listed above is feasible.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

There is only one option, natural gas fuel and LPG backup or propane fired, so a ranking is not necessary.

Step 4 - Cost Effectiveness Analysis

The applicant proposed the use of Natural gas with no backup. The facility would like to propose that the natural gas have a permit condition that limits the fuel used to "utility-delivered natural gas." There will be no sulfur content limit stated in the condition, with the understanding that the utility is subject to regulation regarding the sulfur content of the delivered natural gas.

The applicant has chosen the most effective control technology in step 3; therefore, a cost effectiveness analysis is not required.

Step 5 - Select BACT

BACT for SO_x is the most effective control option not eliminated in the steps above: natural gas fuel. This BACT is selected and has been proposed by the applicant.

3. BACT Analysis for PM₁₀ Emissions:

Step 1 - Identify All Possible Control Technologies

For classes and categories covered in the District's BACT Clearinghouse, the list of available control technologies shall be limited to those listed in the Clearinghouse. This boiler is covered under Guideline 1.1.2. The PM₁₀ control technologies are,

Control Option 1: Natural gas fuel and LPG Backup or propane fired.

Step 2 - Eliminate Technologically Infeasible Options

The option listed above is feasible.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

There is only one option, natural gas fuel and LPG backup or propane fired, so a ranking is not necessary.

Step 4 - Cost Effectiveness Analysis

The applicant proposed the used of Natural gas with no backup.

The applicant has chosen the most effective control technology in step 3; therefore, a cost effectiveness analysis is not required.

Step 5 - Select BACT

BACT for PM₁₀ is the most effective control option not eliminated in the steps above: natural gas fuel and LPG backup or propane fired. This BACT is selected and has been proposed by the applicant.

4. BACT Analysis for VOC Emissions:

Step 1 - Identify All Possible Control Technologies

For classes and categories covered in the District's BACT Clearinghouse, the list of available control technologies shall be limited to those listed in the Clearinghouse. This boiler is covered under Guideline 1.1.2. The VOC control technologies are,

Control Option 1: Natural gas fuel and LPG Backup or propane fired.

Step 2 - Eliminate Technologically Infeasible Options

The option listed above is feasible.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

There is only one option, natural gas fuel and LPG backup or propane fired, so a ranking is not necessary.

Step 4 - Cost Effectiveness Analysis

The applicant proposed the used of Natural gas with no backup. The applicant has chosen the most effective control technology in step 3; therefore, a cost effectiveness analysis is not required.

Step 5 - Select BACT

BACT for VOC is the most effective control option not eliminated in the steps above: natural gas fuel and LPG backup or propane fired. This BACT is selected and has been proposed by the applicant.

5. BACT Analysis for CO Emissions:

Carbon monoxide emissions are generated from the incomplete combustion of the fuel.

Step 1 - Identify All Possible Control Technologies

- 25 ppmvd @ 3% O₂ – Achieved in Practice

The District's database was queried for CO permit limits that had been source tested. Source tests show that CO limits less than 25 ppmvd @ 3% O₂ may be achieved; however, due to the cyclic loading experienced in operations and to allow a margin of compliance with the emissions limit, the lower limit applied to these units is approximately 25 ppmvd @ 3% O₂.

Additionally, no control technology has been proven to be technologically feasible for reducing CO.

Step 2 - Eliminate Technologically Infeasible Options

There are no technologies to eliminate from Step 1.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

Since only 1 technology exists, no ranking is necessary.

Step 4 - Cost Effectiveness Analysis

The only control technology in the ranking list from Step 3 has been achieved in practice. Therefore, per the District's BACT Policy (dated 11/9/99) Section IX.D.2, the cost effectiveness analysis is not required.

Step 5 - Select BACT

The following is a summary of the District's BACT determination for CO control:

Achieved In Practice or contained in SIP	Technologically Feasible	Alternate Basic Equipment
25 ppmvd @ 3% O ₂		

Valves and Connectors Top Down BACT Analysis (S-33-8-26, '-9-18, '-10-8, '-11-13, '-12-12, '-13-25, '-49-8, '-52-18, '-56-30, '-63-13, '-112-5, '-124-10, '-138-7, '-139-5, '-349-18, '-372-4, '-440-0, '-444-0, '-445-0, '-446-0, '-447-0 and S-3303-1-6)

Step 1 - Identify All Possible Control Technologies

BACT Guideline 7.2.2 is listed, *Petroleum Refining — Valves and Connectors*, is listed in the District BACT Clearinghouse and is applicable to the valves and connectors proposed in this project.

1. Leak defined as a reading of methane in excess of 100 ppmv above background when measured per EPA Method 21, and an inspection and maintenance program pursuant to District Rule 4455.

Step 2 - Eliminate Technologically Infeasible Options

The listed option is feasible and is achieved in practice

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

1. Leak defined as a reading of methane in excess of 100 ppmv above background when measured per EPA Method 21, and an inspection and maintenance program pursuant to District Rule 4455.

Step 4 - Cost Effectiveness Analysis

As the applicant is proposing the highest ranked control option not eliminated in Step 2, a cost effectiveness analysis is not required.

Step 5 - Select BACT

1. Leak defined as a reading of methane in excess of 100 ppmv above background when measured per EPA Method 21, and an inspection and maintenance program pursuant to District Rule 4455

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 7.2.2*

Last Update 11/27/2006

Petroleum Refining - Valves & Connectors

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	Leak defined as a reading of methane in excess of 100 ppmv above background when measure per EPA Method 21 and an Inspection and Maintenance Program pursuant to District Rule 4455		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

***This is a Summary Page for this Class of Source**

Pump and Compressor Seals Top Down BACT Analysis (S-33-8-26, '-9-18, '-10-8, '-11-13, '-12-12, '-13-25, '-49-8, '-52-18, '-56-30, '-63-13, '-112-5, '-124-10, '-138-7, '-139-5, '-349-18, '-372-4, '-440-0, '-444-0, '-445-0, '-446-0, '-447-0 and S-3303-1-6)

Step 1 - Identify All Possible Control Technologies

BACT Guideline 7.2.3, *Petroleum Refining — Pump and Compressor Seals*, is listed in the District BACT Clearinghouse and is applicable to the pump and compressor seal proposed in this project. In addition, BAAQMD lists 100 ppmv as technologically feasible.

1. Leak defined as a reading of methane in excess of 100 ppmv above background when measured per EPA Method 21, and an inspection and maintenance program.
2. Leak defined as a reading of methane in excess of 500 ppmv above background when measured per EPA Method 21, and an inspection and maintenance program pursuant to District Rule 4455.

Step 2 - Eliminate Technologically Infeasible Options

Both options are feasible.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

1. Leak defined as a reading of methane in excess of 100 ppmv above background when measured per EPA Method 21, and an inspection and maintenance program.
2. Leak defined as a reading of methane in excess of 500 ppmv above background when measured per EPA Method 21, and an inspection and maintenance program pursuant to District Rule 4455.

Step 4 - Cost Effectiveness Analysis

As the applicant is proposing the second ranked control option not eliminated in Step 2; therefore, a cost effectiveness analysis is required.

Attached are calculations that demonstrate that it is not cost-effective to repair components found leaking above the 100 ppmv threshold. The calculations show the maximum repair cost for each component type for the repair to remain cost-effective, per the District policies. The repair of a leaking pump must cost less than \$259 to remain cost-effective and \$96 to repair a leaking compressor. The actual repair costs for a pump seal and compressor seal are significantly higher given the cost of the seals and the labor to make the repair. The calculations also assume components will leak for an entire year. That too, is conservative as certain components are monitored quarterly and it would be highly unlikely that a component would ever leak at the maximum rate in the calculations for an entire year.

certain components are monitored quarterly and it would be highly unlikely that a component would ever leak at the maximum rate in the calculations for an entire year.

Step 5 - Select BACT

2. Leak defined as a reading of methane in excess of 500 ppmv above background when measured per EPA Method 21, and an inspection and maintenance program pursuant to District Rule 4455

Fugitive Emissions - BACT Cost Effectiveness Analysis for Pump and Compressor Seals

1. Difference in VOC emissions between leak threshold of 500 ppmv (from Rule 4455) and leak threshold of 100 ppmv (BAAQMD BACT) for pumps. and the difference in VDC emissions between leak threshold 1000 ppmv (Rule 4455) and leak threshold 100 ppmv (BAAQMD BACT) for compressors.

Component Type	Service Type	Correlation Equation (kg/hr)		Baseline Conc. ppm VOC	VOC lb/yr		Incremental VOC Decrease	
		A	B		Baseline	100 ppm	lb/yr	tpy
Pump Seals	All	5.07E-05	0.622	500	46.73	17.17	29.56	0.0148
Others (Compressor seals)	All	8.69E-06	0.642	1000	14.15	3.23	10.93	0.0055

Notes:

- Correlation equation factors from *California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities*, February 1999, Table IV-3a: CAPCDA-Revised 1995 EPA Correlation Equations and Factors for Refineries and Marketing Terminals

- Compressors are included in the "Others" category

- Correlation equation: $[VDC \text{ kg/hr}] = A \times SV^B$

$$[VDC \text{ lb/yr}] = [VOC \text{ kg/hr}] \times [8760 \text{ hr/yr}] \times [2.20462 \text{ lb/kg}]$$

$$[VDC \text{ Decrease lb/yr}] = [VDC \text{ lb/yr}]_{\text{Baseline ppm}} - [VDC \text{ lb/yr}]_{\text{100 ppm}}$$

2. Distl From May 14, 2008 Update to Rule 2201 BACT Cost Effectiveness Thresholds:

VDC cost effectiveness threshold	\$17,500	\$/ton VDC
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3. Calcul Maximum Repair Cost per Component (Labor and Materials) to Remain Cost-effective

Component Type	Service Type	VDC tpy	Max \$ per year per component
Pump Seals	All	0.0148	\$259
Others (Compressor seals)	All	0.0055	\$96

$$[\text{Max annual cost/component}] = [\text{VDC decrease tpy}] \times [\text{Cost effectiveness threshold } \$/\text{ton}]$$

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 7.2.3*

Last Update 11/27/2006

Petroleum Refining - Pump and Compressor Seals

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	Leak defined as a reading of methane in excess of 500 ppmv above background when measure per EPA Method 21 and an Inspection and Maintenance Program pursuant to District Rule 4455		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

***This is a Summary Page for this Class of Source**

APPENDIX E
HRA Summary and AAQA

San Joaquin Valley Air Pollution Control District Risk Management Review

To: Rob Rinaldi, AQE - Permit Services
 From: Leland Villalvazo, SAQS - Permit Services
 Date: April 29, 2014
 Facility Name: Alon Bakersfield Refinery
 Location: 6451 Rosedale Hwy, Bakersfield, CA
 Application #(s): S-33-8-26, 9-18, 10-8, 11-13, 12-12, 13-25, 49-8, 52-18, 56-30, 63-13,
 70-6, 112-5, 124-10, 138-7, 139-5, 349-18, 372-4, 440-0, 441-0, 442-0,
 443-0, 444-0, 445-0, 446-0, 447-0
 Project #: S-1134224

A. RMR SUMMARY

RMR Summary			
Categories	Crude Flexibility Project	Project Totals	Facility Totals
Prioritization Score	N/A	N/A	>1.0
Acute Hazard Index	0.0035	0.0035	0.07
Chronic Hazard Index	0.013	0.013	0.02
Maximum Individual Cancer Risk (10 ⁻⁶)	0.5	0.5	8.4
T-BACT Required?	NO		
Special Permit Conditions?	NO		

Proposed Permit Conditions

To ensure that human health risks will not exceed District allowable levels, the following permit conditions must be included for:

Unit # 8-26, 9-18, 10-8, 11-13, 12-12, 13-25, 49-8, 52-18, 56-30, 63-13, 70-6, 112-5, 124-10, 138-7, 139-5, 349-18, 372-4, 440-0, 441-0, 442-0, 443-0, 444-0, 445-0, 446-0, 447-0

- No Special Conditions required

B. RMR REPORT

I. Project Description

Technical Services received a request to perform an Ambient Air Quality Analysis and a Risk Management Review for Alon Bakersfield Refinery Crude Oil Flexibility project. The project consists of several new emissions units and modifications to existing permitted emission units listed above.

II. Analysis

Technical Services reviewed the information (HRA & AAQS) modeling input and output provided by the project proponent.

The following parameters were used for the review:

Table 1
Point Source Parameters for Project Stationary Sources

Source Description	Stack ID	Stack Height		Stack Gas Exit Temperature		Stack Gas Exit Velocity		Stack Diameter		UTM Coordinates (NAD27) Easting/Northing	
		(ft)	(m)	(°F)	(K)	(ft/s)	(m/s)	(ft)	(m)	(m)	(m)
Modified Heater 21-H21	21H21	78.75	24.00	600.0	588.7	17.66	5.383	3.0	0.914	311344.2	3916362.6
Modified Heater 27-H2	27H2	114.0	34.75	600.0	588.7	5.15	1.570	6.0	1.829	311603.6	3916355.3
Modified Heater 26-H13	26H13	63.60	19.39	600.0	588.7	8.83	2.691	3.0	0.914	311366.8	3916358.2
New Boiler #1	BOILER1	42.0	12.80	600.0	588.7	15.89	4.843	2.65	0.808	311379.8	3918432.8
New Boiler #2	BOILER2	42.0	12.80	600.0	588.7	15.89	4.843	2.65	0.808	311398.8	3916432.3
New Boiler #3	BOILER3	42.0	12.80	600.0	588.7	15.89	4.843	2.65	0.808	311417.7	3916431.8
Tank T11003	T11003	41.1	12.53	-460*	-0.2	0.0033	0.001	0.16	0.05	311796.1	3917210.4
Tank T11007	T11007	41.1	12.53	-460*	-0.2	0.0033	0.001	0.16	0.05	311795.3	3917119.0
Tank T11008	T11008	41.1	12.53	-460*	-0.2	0.0033	0.001	0.16	0.05	311796.1	3917146.3
Tank T24M02	T24M02	49.5	15.09	-460*	-0.2	0.0033	0.001	0.16	0.05	311335.0	3916143.8
Tank T24M04	T24M04	49.5	15.09	-460*	-0.2	0.0033	0.001	0.16	0.05	311300.8	3916144.2
Tank T55006	T55006	48.7	14.84	-460*	-0.2	0.0033	0.001	0.16	0.05	311746.0	3916901.0

*Setting the temperature to -460 °F causes the model to use the ambient temperature from the meteorological data set to assure neutral buoyancy.

Table 2
Project Rectangular Area Source Parameters

Source Description	Model ID	Height Above Ground		X Dimension (Width)		Y Dimension (Length)		Angle (deg)	UTM Coordinates* Easting/ Northing	
		(ft)	(m)	(ft)	(m)	(ft)	(m)		(m)	(m)
Unit 21 Fugitive	UNIT21	6.6	2	82.0	25	82.0	25		311369.3	3916299.6
Unit 26 Fugitive	UNIT26	6.6	2	131.2	40	65.6	20		311379.4	3916339.8
Unit 27 Fugitive	UNIT27	6.6	2	98.4	30	65.6	20		311546.9	3916339.8
Units 8 & 9 Fugitive	UNIT8_9	6.6	2	147.6	45	131.2	40		311817.2	3916823.4
Units 10, 11 & 12 Fugitive	UNIT1012	6.6	2	164.0	50	131.2	40		311817.2	3916944.0
Unit 14 Fugitive	UNIT14	6.6	2	131.2	40	131.2	40		311817.2	3916882.6
Tank T150M01 Fugitive	T150M01F	3.3	1	65.6	20	65.6	20		310953.2	3916042.0
Tank T150M02 Fugitive	T150M02F	3.3	1	65.6	20	65.6	20		311059.0	3915681.0
Rail Unloading Rack Fugitive	RURACKS**	3.3	1	1690	515.1	15.6	4.755	1.4	310893.9	3915694.4
Jet Fuel Loading Rack Fugitive	JETLANES	3.3	1	8.2	2.5	65.6	20		311748.6	3917129.0
Propane Refrigeration Skid Fugitive	PROPSKID	3.3	1	65.0	19.8	40.0	12.2		311264.9	3916249.1
Tank T13C01 Fugitive	T13C01F	3.3	1	65.6	20	8.2	2.5		311500.0	3915652.0

*Southwest corner of area.

**To be consistent with EPA recommendations on area source length-to-width ratio, the rail unloading rack is represented in the model as eleven end-to-end sources measuring 46.83 by 4.755 meters each.

**Table 3
Project Circular Area Source Parameters**

Source Description	Model ID	Height Above Ground		Radius		UTM Coordinates* Easting/ Northing	
		(ft)	(m)	(ft)	(m)	(m)	(m)
Tank T150M1	T150M1	35.4	10.8	87.0	26.5	310953.2	3916091.0
Tank T150M2	T150M2	35.4	10.8	87.0	26.5	311059.0	3915930.0
Tank T96M03	T96M03	47.7	14.4	60.0	18.3	311071.3	3916165.9
Tank T10M25 Fugitive	T10M25F	3.3	1	32.1	9.79	311093.7	3915842.1
Tank T10M26 Fugitive	T10M26F	3.3	1	32.1	9.79	311050.9	3915843
Tank T11009 Fugitive	T11009	3.3	1	20.0	6.1	311820.6	3916398.7

Technical Services also reviewed the modeling for criteria pollutants CO, NO_x, SO_x and PM₁₀;

The results from the Criteria Pollutant Modeling are as follows:

Criteria Pollutant Modeling Results*

	1 Hour	3 Hours	8 Hours	24 Hours	Annual
CO	Pass	X	Pass	X	X
NO _x	Pass ¹	X	X	X	Pass
SO _x	Pass	Pass	X	Pass	Pass
PM ₁₀	X	X	X	Pass ²	Pass ²
PM _{2.5}	X	X	X	Pass ²	Pass ²

*Results were taken from the attached PSD spreadsheet.

¹The project was compared to the 1-hour NO₂ National Ambient Air Quality Standard that became effective on April 12, 2010 using the District's approved procedures. The Ozone Limiting Method (OLM) was used in accordance with the District's *Assessment of Non-Regulatory Options in AERMOD – Specifically OLM and PVMRM*.

²The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

III. Conclusion

The cancer risk associated with the operation of the proposed new and modified equipment is less than 1.0 in a million. In accordance with the District's Risk Management Policy, the project is approved without Toxic Best Available Control Technology (T-BACT) for PM₁₀.

These conclusions are based on the data provided by the applicant and the project engineer. Therefore, this analysis is valid only as long as the proposed data and parameters do not change.

The emissions from the proposed equipment will not cause or contribute significantly to a violation of the State and National AAQS.

APPENDIX F
PE1 Calculations with Base Document References and Sample
Calculations

PE1 and Rule 2201 Baseline Emissions - Fugitives

	S-33-11, Unit 8 Fugitives	S-33-12, Unit 9 Fugitives	S-33-8, Unit 10 Fugitives	S-33-9, Unit 11 Fugitives	S-33-10, Unit 12 Fugitives	S-33-13, Unit 14 Fugitives	S-33-58, Unit 21 Fugitives	S-33-124, Unit 25 Fugitives	S-33-52, Unit 26 Fugitives	S-33-349, Unit 27 Fugitives
	A1U08	A1U09	A1U10	A1U11	A1U12	A1U14	A2U21		A2U26	A2U27
Permitted VOC Daily Emission Limit (DEL)										
Existing DEL (lb/day)	18.80	26.30	--	--	--	--	136.3	377.0	761.4	92.9
Existing DEL (lb/yr)	6,862.00	9,599.50	--	--	--	--	49,749.50	137,605.00	277,911.00	33,908.50
2008 Actual Emissions										
Gas/Vapor (lb/year)	n/a	577.46	926.80	198.70	321.37	1,019.96	n/a	n/a	n/a	n/a
Light Liquid (lb/year)	n/e	584.91	211.36	51.83	628.75	1,084.05	n/a	n/a	n/a	n/a
Rule 2201 Baseline Emissions (BE)										
BE Basis	DEL	DEL	PE1	PE1	PE1	PE1	DEL	DEL	DEL	DEL
BE (lb/year)	6,862.0	9,599.5	2,276.3	501.1	1,900.3	4,208.0	49,749.5	137,605.0	277,911.0	33,908.5
BE (tpy)	3.43	4.80	1.14	0.25	0.95	2.10	24.87	68.80	138.96	16.95
PE1 Basis										
PE1 Basis	DEL	DEL	Actual 2008 x 2	Actual 2008 x 2	Actual 2008 x 2	Actual 2008 x 2	DEL	DEL	DEL	DEL
PE1 (lb/year)	6,862.0	9,599.5	2,276.3	501.1	1,900.3	4,208.0	49,749.5	137,605.0	277,911.0	33,908.5
PE1 (tpy)	3.43	4.80	1.14	0.25	0.95	2.10	24.87	68.80	138.96	16.95

Notes:

1. Fugitive components are considered Clean Emissions Units. Therefore, BE=PE1.
2. For units with a permitted Daily Emission Limit (DEL), this DEL is the basis for PE1 and BE.
3. For units without a permitted DEL, PE1 is estimated as baseline period actual emissions times a factor of 2, to account for year-to-year variability.

Pre-Project Potential to Emit (PE1)

Pre-Project PTE (Annual)

Project Component	Permit Unit	Criteria Pollutant Emissions (Tons/Year)					
		VOC	NOx	PM10	PM2.5	CO	SOX
21-H21	S-33-56	0.71	4.79	0.98	0.98	38.89	1.56
26-H13&15	S-33-52	0.35	2.40	0.49	0.49	19.44	0.78
27-H2	S-33-349	0.83	5.59	1.14	1.14	25.52	1.83
New Boiler 1	S-33-441						
New Boiler 2	S-33-442						
New Boiler 3	S-33-443						
Unit 8 Fugitives	S-33-11	3.43					
Unit 9 Fugitives	S-33-12	4.80					
Unit 10 Fugitives	S-33-8	1.14					
Unit 11 Fugitives	S-33-9	0.25					
Unit 12 Fugitives	S-33-10	0.95					
Unit 14 Fugitives	S-33-13	2.10					
Unit 21 Fugitives	S-33-56	24.87					
Unit 25 Fugitives	S-33-124	68.80					
Unit 26 Fugitives	S-33-52	138.96					
Unit 27 Fugitives	S-33-349	16.95					
T10M25	S-33-444						
T10M26	S-33-445						
T150M01	S-33-446						
T150M02	S-33-447						
Rail Unloading Rack	S-33-440						
Terminal Load Rack	S-3303-1	9.60					
Total PE1 (tons/year or MT/year)		273.75	12.78	2.61	2.61	83.86	4.17
Total PE1 (lb/year)		547,499	25,553	5,222	5,222	167,712	8,343

Pre-Project PTE (Daily)

Project Component	Permit Unit	Daily PTE (Pounds/Day)					
		VOC	NOx	PM10	PM2.5	CO	SOX
21-H21	S-33-56	3.9	26.3	5.4	5.4	213.1	8.6
26-H13&15	S-33-52	1.9	13.1	2.7	2.7	106.5	4.3
27-H2	S-33-349	4.5	30.6	6.3	6.3	139.8	10.0
New Boiler 1	S-33-441						
New Boiler 2	S-33-442						
New Boiler 3	S-33-443						
Unit 8 Fugitives	S-33-11	18.8					
Unit 9 Fugitives	S-33-12	26.3					
Unit 10 Fugitives	S-33-8	6.2					
Unit 11 Fugitives	S-33-9	1.4					
Unit 12 Fugitives	S-33-10	5.2					
Unit 14 Fugitives	S-33-13	11.5					
Unit 21 Fugitives	S-33-56	136.3					
Unit 25 Fugitives	S-33-124	377.0					
Unit 26 Fugitives	S-33-52	761.4					
Unit 27 Fugitives	S-33-349	92.9					
T10M25	S-33-444						
T10M26	S-33-445						
T150M01	S-33-446						
T150M02	S-33-447						
Rail Unloading Rack	S-33-440						
Terminal Load Rack	S-3303-1	52.6					
Total Average Daily PE1		1,500.0	70.0	14.3	14.3	459.5	22.9

Notes:

1. For fugitive component emissions, PE1 is DEL.

2. For existing heaters, PE1 = emission limits defined in the existing permits

3. PE1 = 0 for new emission units

Sample PE1 Calculations for existing heater 11-H11 (to be renamed 27-H2) (S-33-349):

This calculation protocol was also used for existing heaters on the following permit units: S-33-56 & '349

Equations:

$$PE_{VOC} = \frac{EF_{VOC}}{1020 \text{ Btu/scf}} \times \left(\frac{MMBtu}{hr} \right) \times (24 \text{ hr/day})$$

$$PE_{PM10} = \frac{EF_{PM10}}{1020 \text{ Btu/scf}} \times \left(\frac{MMBtu}{hr} \right) \times (24 \text{ hr/day})$$

$$PE_{NOx} = \frac{\text{ppm NOx}}{10^6} \times MW_{NOx} \times \frac{(F - \text{Factor})}{379 \text{ scf/lb} \cdot \text{mol}} \times \frac{20.95}{20.95 - \%O_2} \times \left(\frac{MMBtu}{hr} \right) \times (24 \text{ hr/day})$$

$$PE_{CO} = \frac{\text{ppm CO}}{10^6} \times MW_{CO} \times \frac{(F - \text{Factor})}{379 \text{ scf/lb} \cdot \text{mol}} \times \frac{20.95}{20.95 - \%O_2} \times \left(\frac{MMBtu}{hr} \right) \times (24 \text{ hr/day})$$

$$PE_{SOx} = \left(\text{Fuel S, } \frac{gr}{100 \text{ scf fuel}} \right) \times \frac{10^6 \text{ scf}}{MMscf} \times \frac{lb}{7000 \text{ gr}} \times \frac{MW_{SO2}}{MW_S} \times \frac{1}{HHV} \times \left(\frac{MMBtu}{hr} \right) \times (24 \text{ hr/day})$$

Calculations:

$$PE_{VOC} = 4.53 \frac{lb}{day} = \frac{5.5 \text{ lb/MMscf}}{1020 \text{ lb/MMBtu}} \times \left(35 \frac{MMBtu}{hr} \right) \times (24 \text{ hr/day})$$

$$PE_{PM10} = 6.26 \frac{lb}{day} = \frac{7.6 \text{ lb/MMscf}}{1020 \text{ lb/MMBtu}} \times \left(35 \frac{MMBtu}{hr} \right) \times (24 \text{ hr/day})$$

$$\begin{aligned} PE_{NOx} &= 30.63 \frac{lb}{day} \\ &= \frac{30 \text{ ppm NOx}}{10^6} \times \left(46.01 \frac{lb}{lb \cdot \text{mol}} \right) \times \frac{8578 \text{ dscf/MMBtu}}{379 \text{ scf/lb} \cdot \text{mol}} \times \frac{20.95}{20.95 - 3} \\ &\times \left(35 \frac{MMBtu}{hr} \right) \times (24 \text{ hr/day}) \end{aligned}$$

$$\begin{aligned} PE_{CO} &= 139.84 \frac{lb}{day} \\ &= \frac{225 \text{ ppm CO}}{10^6} \times \left(28.01 \frac{lb}{lb \cdot \text{mol}} \right) \times \frac{8578 \text{ dscf/MMBtu}}{379 \text{ scf/lb} \cdot \text{mol}} \times \frac{20.95}{20.95 - 3} \\ &\times \left(35 \frac{MMBtu}{hr} \right) \times (24 \text{ hr/day}) \end{aligned}$$

$$\begin{aligned} PE_{SOx} &= 10.00 \frac{lb}{day} \\ &= \left(\frac{5 \text{ gr S}}{100 \text{ scf fuel}} \right) \times \frac{10^6 \text{ scf}}{MMscf} \times \frac{lb}{7000 \text{ gr}} \times \frac{64}{32} \times \frac{\text{scf}}{1200 \text{ Btu}} \times \left(35 \frac{MMBtu}{hr} \right) \\ &\times (24 \text{ hr/day}) \end{aligned}$$

Sample PE1 Fugitive Emission Calculations for Hydrotreater Unit #10 (S-33-8-25):

Where the current PTO and/or ATC includes a DEL, PE1 was taken to be equal to the DEL. Where the current PTO and/or ATC does not include a DEL, PE1 was based on actual 2008 fugitive emissions from the unit, times two to account for variations in emissions from year to year.

PE1 from fugitive equipment leaks was based on the DEL for the following permit units: S-33-11, '-12, '-124, '-52, '-349. PE1 from fugitive equipment leaks was based on 2 times actual 2008 fugitive emissions for the following permit units: S-33-8, '-9, '-10, '-13, and '-56.

The 2008 fugitive emissions were based on leak detection and repair (LDAR) monitoring results and the California Implementation Guidelines for Estimating Mass Emissions of fugitive Hydrocarbon Leaks at Petroleum Facilities, CAPCOA/CARB, February 1999 "correlation equations".

Equations:

Where there is no DEL, actual emissions from each individual component in the unit were determined using the following correlation equations, where "SV" is the monitored leak screening value, corrected for background, in ppmv.

Valves:	$E_{Valve}(kg/hr) = (2.27 \times 10^{-6}) \times SV^{0.747}$
Pump seals:	$E_{Pump\ Seal}(kg/hr) = (5.07 \times 10^{-5}) \times SV^{0.622}$
Others:	$E_{Other}(kg/hr) = (8.69 \times 10^{-6}) \times SV^{0.642}$
Connectors:	$E_{Connector}(kg/hr) = (1.53 \times 10^{-6}) \times SV^{0.736}$
Flanges:	$E_{Flange}(kg/hr) = (4.53 \times 10^{-6}) \times SV^{0.706}$
Open-ended lines:	$E_{Open-end}(kg/hr) = (1.90 \times 10^{-6}) \times SV^{0.724}$

Total fugitive emissions from the unit were determined by summing emissions from all of the components in the unit.

$$E_{VOC} = \sum_{Valves} E_{Valve} + \sum_{Pump\ Seals} E_{Pump\ Seal} + \sum_{Others} E_{Other} + \sum_{Connectors} E_{Connector} + \sum_{Flanges} E_{Flange} + \sum_{Open-end} E_{Open-End}$$

$$PE1 = E_{VOC,2008} \times 2$$

PE1 for PTO S-33-8-25:

$$\begin{aligned} E_{\text{VOC,Unit 10,2008}} &= 1138.18 \text{ lbs} = (+91.89 + 7.99 + 24.75 + 1.57)_{\text{valve}} + (25.11)_{\text{Purrip Seal}} \\ &+ (0.69 + 12.56 + 8.09 + 1.13 + 4.74 + 0.59 + 1.19 + 0.86)_{\text{Other}} \\ &+ (584.89 + 44.76 + 93.01 + 0.05)_{\text{Connector}} \\ &+ (70.35 + 15.50 + 28.07 + 2.95 + 28.84 + 71.49 + 16.82 + 0.29)_{\text{Flange}} \\ &+ (0)_{\text{Open-End}} \end{aligned}$$

$$\text{PE1} = E_{\text{voc,Unit 10,2008}} \times 2 = 1138 \times 2 = \underline{\underline{2276 \text{ lb VOC/yr.}}}$$

PTO # S-33-8-25

Total VOC Emissions

Alon Bakersfield

Facility: Alon Bakersfield

Grouped By: Each Area

Quantified By: Component Type

From: 1/1/2008 To: 12/31/2008

Area: AREA1

Days In Period: 366

Component Type:	Service:	Inaccessible:	Number of Components:	Total Emissions (Pounds):
COMPRESSOR	GAS / VAPOR	No	1	0.69
Service Subtotals:			1	0.69
COMPRESSOR Component Subtotals:			1	0.69
CONNECTOR	GAS / VAPOR	No	4259	584.89
CONNECTOR	GAS / VAPOR	Yes	225	44.76
CONNECTOR	LIGHT LIQUID	No	786	93.01
CONNECTOR	LIGHT LIQUID	Yes	1	0.05
Service Subtotals:			5271	722.71
CONNECTOR Component Subtotals:			5271	722.71
DRAIN	LIGHT LIQUID	No	27	12.56
Service Subtotals:			27	12.56
DRAIN Component Subtotals:			27	12.56
FLANGED CONNECTION	GAS / VAPOR	No	269	70.35
FLANGED CONNECTION	GAS / VAPOR	Yes	55	15.5
FLANGED CONNECTION	LIGHT LIQUID	No	130	28.07
FLANGED CONNECTION	LIGHT LIQUID	Yes	8	2.95
Service Subtotals:			462	116.87
FLANGED CONNECTION Component Subtotals:			462	116.87
FLANGES	GAS / VAPOR	No	108	28.84
FLANGES	GAS / VAPOR	Yes	115	71.49
FLANGES	LIGHT LIQUID	No	58	16.82
FLANGES	LIGHT LIQUID	Yes	2	0.29
Service Subtotals:			283	117.44
FLANGES Component Subtotals:			283	117.44

Calculation Methods:

Look before and after reporting period (12 month(s))

Only look if no inspections exist inside period

PTO # S-33-8-25

Total VOC Emissions

Alon Bakersfield

Facility: Alon Bakersfield

Grouped By: Each Area

Quantified By: Component Type

From: 1/1/2008 To: 12/31/2008

Area: AREA1

Days In Period: 366

Component Type:	Service:	Inaccessible:	Number of Components:	Total Emissions (Pounds):
OTHER	GAS / VAPOR	No	24	8.09
OTHER	GAS / VAPOR	Yes	4	1.13
OTHER	LIGHT LIQUID	No	12	4.74
OTHER	LIGHT LIQUID	Yes	1	0.59
Service Subtotals:			41	14.55
OTHER Component Subtotals:			41	14.55
PRESSURE RELIEF DEVICE	GAS / VAPOR	No	3	1.19
PRESSURE RELIEF DEVICE	LIGHT LIQUID	No	1	0.86
Service Subtotals:			4	2.05
PRESSURE RELIEF DEVICE Component Subtotals:			4	2.05
PUMP	LIGHT LIQUID	No	6	25.11
Service Subtotals:			6	25.11
PUMP Component Subtotals:			6	25.11
VALVE	GAS / VAPOR	No	419	91.89
VALVE	GAS / VAPOR	Yes	49	7.99
VALVE	LIGHT LIQUID	No	123	24.75
VALVE	LIGHT LIQUID	Yes	7	1.57
Service Subtotals:			598	126.2
VALVE Component Subtotals:			598	126.2
Area Totals:			6693	1138.18

Calculation Methods:

Look before and after reporting period (12 month(s))

Only look if no Inspections exist inside period

PŦO # S-33-8-25

Total VOC Emissions

Alon Bakersfield

	<u>Total Components</u>	<u>Total Emissions (Pounds):</u>
Area Totals:	6693	1138.18

This report was generated using a filter:

Unit is equal to UNIT #10 CRUDE

Calculation Methods:

Look before and after reporting period (12 month(s))

Only look if no inspections exist inside period

PTO # S-33-9-17

Total VOC Emissions

Alon Bakersfield

Facility: Alon Bakersfield

Grouped By: Each Area

Quantified By: Component Type

From: 1/1/2008 To: 12/31/2008

Area: AREA1

Days In Period: 366

Component Type:	Service:	Inaccessible:	Number of Components:	Total Emissions (Pounds):
OTHER	GAS / VAPOR	No	8	1.87
OTHER	GAS / VAPOR	Yes	2	0.53
OTHER	LIGHT LIQUID	No	5	1.83
OTHER	LIGHT LIQUID	Yes	1	0.26
Service Subtotals:			16	4.49
OTHER Component Subtotals:			16	4.49
PRESSURE RELIEF DEVICE	GAS / VAPOR	No	3	0.64
Service Subtotals:			3	0.64
PRESSURE RELIEF DEVICE Component Subtotals:			3	0.64
PUMP	LIGHT LIQUID	No	1	4.71
Service Subtotals:			1	4.71
PUMP Component Subtotals:			1	4.71
VALVE	GAS / VAPOR	No	163	36.72
VALVE	GAS / VAPOR	Yes	31	4.18
VALVE	LIGHT LIQUID	No	39	7.14
VALVE	LIGHT LIQUID	Yes	7	0.88
Service Subtotals:			240	48.92
VALVE Component Subtotals:			240	48.92
Area Totals:			1302	250.53

	Total Components	Total Emissions (Pounds):
Area Totals:	1302	250.53

This report was generated using a filter:

Unit is equal to UNIT #11 VACUUM

Calculation Methods:

Look before and after reporting period (12 month(s))

Only look if no inspections exist inside period

PTO # S-33-9-17

Total VOC Emissions

Alon Bakersfield

Facility: Alon Bakersfield

Grouped By: Each Area

Quantified By: Component Type

From: 1/1/2008 To: 12/31/2008

Area: AREA1

Days In Period: 366

Component Type:	Service:	Inaccessible:	Number of Components:	Total Emissions (Pounds):
CONNECTOR	GAS / VAPOR	No	397	67.29
CONNECTOR	GAS / VAPOR	Yes	189	25.78
CONNECTOR	LIGHT LIQUID	No	90	12
CONNECTOR	LIGHT LIQUID	Yes	9	0.72
Service Subtotals:			685	105.79
CONNECTOR Component Subtotals:			685	105.79
DRAIN	LIGHT LIQUID	No	17	14.05
Service Subtotals:			17	14.05
DRAIN Component Subtotals:			17	14.05
FLANGED CONNECTION	GAS / VAPOR	No	184	32.64
FLANGED CONNECTION	GAS / VAPOR	Yes	16	4.63
FLANGED CONNECTION	LIGHT LIQUID	No	34	6.86
FLANGED CONNECTION	LIGHT LIQUID	Yes	11	1.99
Service Subtotals:			245	46.12
FLANGED CONNECTION Component Subtotals:			245	46.12
FLANGES	GAS / VAPOR	No	55	10.83
FLANGES	GAS / VAPOR	Yes	31	13.59
FLANGES	LIGHT LIQUID	No	9	1.39
Service Subtotals:			95	25.81
FLANGES Component Subtotals:			95	25.81

Calculation Methods:

Look before and after reporting period (12 month(s))

Only look if no inspections exist inside period

PTO # S-33-10-7

Total VOC Emissions

Alon Bakersfield

Facility: Alon Bakersfield

Grouped By: Each Area

Quantified By: Component Type

From: 1/1/2008 To: 12/31/2008

Area: AREA1

Days In Period: 366

Component Type:	Service:	Inaccessible:	Number of Components:	Total Emissions (Pounds):
CONNECTOR	GAS / VAPOR	No	1742	241.09
CONNECTOR	LIGHT LIQUID	No	1356	214.56
Service Subtotals:			3098	455.65
CONNECTOR Component Subtotals:			3098	455.65
DRAIN	LIGHT LIQUID	No	12	10.64
Service Subtotals:			12	10.64
DRAIN Component Subtotals:			12	10.64
FLANGED CONNECTION	GAS / VAPOR	No	135	31.06
FLANGED CONNECTION	LIGHT LIQUID	No	312	94.58
Service Subtotals:			447	125.64
FLANGED CONNECTION Component Subtotals:			447	125.64
FLANGES	GAS / VAPOR	No	26	14.02
FLANGES	LIGHT LIQUID	No	76	18.61
Service Subtotals:			102	32.63
FLANGES Component Subtotals:			102	32.63
OTHER	GAS / VAPOR	No	4	1.03
OTHER	LIGHT LIQUID	No	21	11.36
Service Subtotals:			25	12.39
DOTHER Component Subtotals:			25	12.39
PRESSURE RELIEF DEVICE	GAS / VAPOR	No	2	0.78
PRESSURE RELIEF DEVICE	LIGHT LIQUID	No	1	0.38
Service Subtotals:			3	1.16
PRESSURE RELIEF DEVICE Component Subtotals:			3	1.16
PUMP	LIGHT LIQUID	No	7	84.71
Service Subtotals:			7	84.71
PUMP Component Subtotals:			7	84.71

Calculation Methods:

Look before and after reporting period (12 month(s))

Only look if no inspections exist inside period

PTO # S-33-10-7

Total VOC Emissions

Alon Bakersfield

Facility: Alon Bakersfield

Grouped By: Each Area

Quantified By: Component Type

Area: AREA1

From: 1/1/2008 To: 12/31/2008

Days in Period: 366

Component Type:	Service:	Inaccessible:	Number of Components:	Total Emissions (Pounds):
VALVE	GAS / VAPOR	No	100	33.08
VALVE	GAS / VAPOR	Yes	3	0.32
VALVE	LIGHT LIQUID	No	267	193.92

Service Subtotals: 370 227.32

VALVE Component Subtotals: 370 227.32

Area Totals: 4064 950.14

	Total Components	Total Emissions (Pounds):
Area Totals:	4064	950.14

This report was generated using a filter:

Unit is equal to UNIT #12 CRUDE LIGHT ENDS

Calculation Methods:

Look before and after reporting period (12 month(s))

Only look if no inspections exist inside period

PTO # S-33-13-24

Total VOC Emissions

Alon Bakersfield

Facility: Alon Bakersfield

Grouped By: Each Area

Quantified By: Component Type

From: 1/1/2008 To: 12/31/2008

Area: Entire Facility

Days In Period: 366

Component Type:	Service:	Inaccessible:	Number of Components:	Total Emissions (Pounds):
OTHER	GAS / VAPOR	No	51	11.51
OTHER	GAS / VAPOR	Yes	4	1.02
OTHER	LIGHT LIQUID	No	21	10.98
Service Subtotals:			76	23.51
OTHER Component Subtotals:			76	23.51
PRESSURE RELIEF DEVICE	GAS / VAPOR	No	27	16.05
PRESSURE RELIEF DEVICE	GAS / VAPOR	Yes	2	0.42
Service Subtotals:			29	16.47
PRESSURE RELIEF DEVICE Component Subtotals:			29	16.47
PUMP	LIGHT LIQUID	No	3	273.07
Service Subtotals:			3	273.07
PUMP Component Subtotals:			3	273.07
VALVE	GAS / VAPOR	No	713	192.3
VALVE	GAS / VAPOR	Yes	53	44.56
VALVE	LIGHT LIQUID	No	179	451.05
VALVE	LIGHT LIQUID	Yes	1	0.36
Service Subtotals:			946	688.27
VALVE Component Subtotals:			946	688.27
Area Totals:			7680	2104.02

	Total Components	Total Emissions (Pounds):
Area Totals:	7680	2104.02

This report was generated using a filter:

Unit is equal to UNIT #14 MILD HYDROCRACKER

Calculation Methods:

Look before and after reporting period (12 month(s))

Only look if no inspections exist inside period

PTO # S-33-13-24

Total VOC Emissions

Alon Bakersfield

Facility: Alon Bakersfield

Grouped By: Each Area

Quantified By: Component Type

From: 1/1/2008 To: 12/31/2008

Area: Entire Facility

Days In Period: 366

Component Type:	Service:	Inaccessible:	Number of Components:	Total Emissions (Pounds):
COMPRESSOR	GAS / VAPOR	No	5	6.12
Service Subtotals:			5	6.12
COMPRESSOR Component Subtotals:			5	6.12
CDNNECTDR	GAS / VAPDR	No	3507	552.1
CONNECTOR	GAS / VAPDR	Yes	258	17.66
CDNNECTDR	LIGHT LIQUID	No	1480	237.51
CONNECTOR	LIGHT LIQUID	Yes	151	7.86
Service Subtotals:			5396	815.13
CONNECTOR Component Subtotals:			5396	815.13
DRAIN	LIGHT LIQUID	No	37	18.03
Service Subtotals:			37	18.03
DRAIN Component Subtotals:			37	18.03
FLANGED CONNECTION	GAS / VAPOR	No	648	112.96
FLANGED CONNECTION	GAS / VAPOR	Yes	56	7.38
FLANGED CONNECTION	LIGHT LIQUID	No	173	45.73
FLANGED CONNECTION	LIGHT LIQUID	Yes	4	1.73
Service Subtotals:			881	167.8
FLANGED CONNECTION Component Subtotals:			881	167.8
FLANGES	GAS / VAPOR	No	236	53.93
FLANGES	GAS / VAPOR	Yes	25	3.96
FLANGES	LIGHT LIQUID	No	46	37.73
Service Subtotals:			307	95.62
FLANGES Component Subtotals:			307	95.62

Calculation Methods:

Look before and after reporting period (12 month(s))

Only look if no inspections exist inside period

Alon Bakersfield Refinery Crude Flexibility Project

S-33-52: 26-H13&15 Combustion Emissions

PE1 - Criteria Pollutant Emissions Based on Existing Permit Limits

Pollutant	EF	EF Units	EF Source	EF lb/MMBtu	Emissions	
					Pounds/ Day	Tons/Year
VOC	5.5	lb/MMscf	AP-42 Chpt. 1.4	0.0054	1.94	0.35
NOx	30	ppmv @ 3% O ₂	Rule 4306	0.036	13.13	2.40
PM ₁₀	7.6	lb/MMscf	AP-42 Chpt. 1.4	0.0075	2.68	0.49
PM _{2.5}	7.6	lb/MMscf	Same as PM ₁₀	0.0075	2.68	0.49
CO	400	ppmv @ 3% O ₂	Rule 4306	0.2960	108.55	19.44
SO _x	5	gr S/100 scf fuel	Rule 4320, section 5.4.1	0.0119	4.29	0.78

PE2 - Criteria Pollutant Emissions

Pollutant	EF	EF Units	EF Source	EF lb/MMBtu	Emissions	
					Pounds/ Day	Tons/Year
VOC	5.5	lb/MMscf	AP-42 Chpt. 1.4	0.0054	1.94	0.35
NOx	30	ppmv @ 3% O ₂	Rule 4306, Section 5.1.1	0.0365	13.13	2.40
PM ₁₀	7.6	lb/MMscf	AP-42 Chpt. 1.4	0.0075	2.68	0.49
PM _{2.5}	7.6	lb/MMscf	Same as PM ₁₀	0.0075	2.68	0.49
CO	200	ppmv @ 3% O ₂	Proposed by Alon	0.1460	53.27	9.72
SO _x	5	gr S/100 scf fuel	Rule 4320, section 5.4.1	0.0119	4.29	0.78

Alon Bakersfield Refinery Crude Flexibility Project

S-33-56 21-H21 Combustion Emissions

PE1 Criteria Pollutant Emissions Based on Existing Permit Limits

Pollutant	EF	EF Units	EF Source	EF lb/MMBtu	Emissions	
					Pounds/ Day	Tons/Year
VOC	5.5	lb/MMscf	AP-42 Chpt. 1.4	0.0054	3.88	0.71
NO _x	30	ppmv @ 3% O ₂	Rule 4306	0.036	26.25	4.79
PM ₁₀	7.8	lb/MMscf	AP-42 Chpt. 1.4	0.0075	5.36	0.98
PM _{2.5}	7.8	lb/MMscf	Same as PM ₁₀	0.0075	5.36	0.98
CO	400	ppmv @ 3% O ₂	Rule 4306	0.2960	213.09	39.89
SO _x	5	gr S/100 scf fuel	Rule 4320, section 5.4.1	0.0119	8.57	1.56

PE2 - Criteria Pollutant Emissions

Pollutant	EF	EF Units	EF Source	EF lb/MMBtu	Emissions	
					Pounds/ Day	Tons/Year
VOC	5.5	lb/MMscf	AP-42 Chpt. 1.4	0.0054	3.88	0.71
NO _x	24	ppmv @ 3% O ₂	Proposed by Alon	0.0292	21.00	3.83
PM ₁₀	7.8	lb/MMscf	AP-42 Chpt. 1.4	0.0075	5.36	0.98
PM _{2.5}	7.8	lb/MMscf	Same as PM ₁₀	0.0075	5.36	0.98
CO	200	ppmv @ 3% O ₂	Proposed by Alon	0.1480	106.55	19.44
SO _x	5	gr S/100 scf fuel	Rule 4320, section 5.4.1	0.0119	8.57	1.58

Alon Bakersfield Refinery Crude Flexibility Project

ATC S-33-349 27-H2 Combustion Emissions

PE1 - Criteria Pollutant Emissions Based on Existing Permit Limits

Pollutant	EF	EF Units	EF Source	EF lb/MMBtu	Emissions	
					Pounds/ Day	Tons/Year
VOC	5.5	lb/MMscf	AP-42 Chpt. 1.4	0.0054	4.53	0.83
NOx	30	ppmv @ 3% O ₂	Rule 4308	0.036	30.83	5.59
PM ₁₀	7.6	lb/MMscf	AP-42 Chpt. 1.4	0.0075	6.26	1.14
PM _{2.5}	7.6	lb/MMscf	Same as PM ₁₀	0.0075	6.26	1.14
CO	225	ppmv @ 3% O ₂	S-33-9-7	0.1865	139.84	25.52
SO _x	5	gr S/100 scf fuel	Rule 4320, section 5.4.1	0.0119	10.00	1.83

PE2 - Criteria Pollutant Emissions

Pollutant	EF	EF Units	EF Source	EF lb/MMBtu	Emissions	
					Pounds/ Day	Tons/Year
VOC	5.5	lb/MMscf	AP-42 Chpt. 1.4	0.0054	4.53	0.83
NOx	24	ppmv @ 3% O ₂	Proposed by Alon	0.0292	24.50	4.47
PM ₁₀	7.6	lb/MMscf	AP-42 Chpt. 1.4	0.0075	6.26	1.14
PM _{2.5}	7.6	lb/MMscf	Same as PM ₁₀	0.0075	6.26	1.14
CO	200	ppmv @ 3% O ₂	Proposed by Alon	0.1480	124.31	22.69
SO _x	5	gr S/100 scf fuel	Rule 4320, section 5.4.1	0.0119	10.00	1.83

PE1 and PE2 for S-33-70 and S-33-372 combined (PTO S-33-70 will be deleted)

Combined Rack Emissions - 2008

Component Type	Service Type	Total Count	Total Emissions lb/yr	lb/comp/yr	
CONNECTOR	GAS / VAPOR	232	123.845	0.53	
CONNECTOR	LIGHT LIQUID	183	258.432	1.41	
FLANGED CONNECTION	GAS / VAPOR	11	4.414	0.40	
FLANGED CONNECTION	LIGHT LIQUID	51	63.957	1.25	
FLANGES	GAS / VAPOR	26	10.286	0.40	
FLANGES	LIGHT LIQUID	23	31.802	1.38	
OTHER	GAS / VAPOR	4	2.593	0.65	
OTHER	LIGHT LIQUID	4	11.317	2.83	
PUMP	LIGHT LIQUID	1	16.128	16.13	
PRESSURE RELIEF DEVICE	GAS / VAPOR	2	1.100	0.55	
PRESSURE RELIEF DEVICE	LIGHT LIQUID	2	0.967	0.48	
VALVE	GAS / VAPOR	33	24.985	0.76	
VALVE	LIGHT LIQUID	42	265.540	6.32	
		Total	815.367	lb/yr	2008 annual
		Daily avg	2.23	lb/day	2008 daily avg
		DEL	4.5	lb/day	2008 daily avg

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-33-11-12

EXPIRATION DATE: 08/31/2016

SECTION: 27 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

HYDROTREATER UNIT #8 INCLUDING 12.8 MMBTU/HR GAS-FIRED CHARGE HEATER (8-H1) WITH JOHN ZINK COOLSTAR LOW NOX BURNER, REACTOR (8-R1), SEPARATOR (8-V2), 12.8 MMBTU/HR GAS-FIRED REBOILER HEATER (8-H2) WITH JOHN ZINK COOLSTAR LOW NOX BURNER, STRIPPER (8-V4), STRIPPER RECEIVER (8-V8) AND MISC PUMPS, PIPING AND VESSELS - AREA 1

PERMIT UNIT REQUIREMENTS

1. Permittee shall meet all applicable requirements of NSPS Subparts A, J, and GGG. [District Rule 4001] Federally Enforceable Through Title V Permit
2. Except during startup and shutdown, heater 8H1 and 8H2 emission rates shall not exceed any of the following: NOx (as NO2): 0.036 lb/MMBtu or 30 ppmvd @ 3% O2, CO: 400 ppmvd @ 3% O2, VOC: 0.0055 lb/MMBtu, PM10: 0.0076 lb/MMBtu, or SOx (as SO2): 0.0286 lb/MMBtu. [District NSR Rule and District Rule 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
3. Emission rates from each heater (8H1 and 8H2) shall not exceed any of the following: PM10 ~~2.3~~ ^{X2X365} lb/day, SOx (as SO2) ~~8.8~~ lb/day, VOC: ~~1.7~~ lb/day, NOx (as NO2): 55.3 lb/day or 4,052 lb/year, or CO: 92.2 lb/day or 7,535 lb/year. [District NSR Rule] Federally Enforceable Through Title V Permit
4. For heaters 8H1 and 8H2, compliance with annual CO emission rate shall be determined by using CO emission concentrations obtained during monthly monitoring as required in this permit, fuel use, fuel heating value, and stack gas flow rate. Records of calculated CO emissions shall be maintained for a period of five years and made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
5. For heaters 8H1 and 8H2, duration of start-up and shutdown shall not exceed 2 hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
6. Permittee shall maintain records of duration of each start-up and shutdown for a period of five years and make such records readily available for District inspection upon request. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
7. For each heater, the permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

19. Leaks from valves and connectors associated with hot high-pressure separator (8-D7) and HTU reactor feed/effluent exchangers (8-E1 G/H) that are subject to the provisions of Rule 4455 shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured one (1) cm from potential source. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Fuel gas sulfur content (as H₂S) shall not exceed 0.1 gr/dscf (160 ppmv) over a three hour rolling average and shall be continuously monitored and recorded. [District Rule 4001] Federally Enforceable Through Title V Permit
21. Sour gas shall discharge only to amine treater, sulfur recovery plant or, under breakdown conditions, to the flare, as provided for under Rules 1100 and 4001, Subparts A and J. [District NSR Rule and District Rules 1100 and 4001] Federally Enforceable Through Title V Permit
22. VOC emissions shall not exceed 18.8 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
23. Compliance with fugitive VOC emission limit shall be demonstrated by annual component count and District approved emission factors. [District NSR Rule] Federally Enforceable Through Title V Permit
24. Permittee shall maintain records of hhv of fuel burned and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
25. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
26. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
27. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
28. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO₂. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
29. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
30. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
31. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
32. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2.1, 4306, 6.2.1, and 4351, 6.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.



AUTHORITY TO CONSTRUCT

PERMIT NO: S-33-12-11

ISSUANCE DATE: 01/31/2011

LEGAL OWNER OR OPERATOR: ALON BAKERSFIELD REFINING

MAILING ADDRESS: 6451 ROSEDALE HWY
BAKERSFIELD, CA 93308

LOCATION: 6451 ROSEDALE HWY (AREA 1 & 2)
BAKERSFIELD, CA 93308

SECTION: 27 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:

MODIFICATION OF CATALYTIC REFORMER #9 INCLUDING 4 REACTORS 9-R1, R2, R3 AND R4, 4 REFINERY FUEL GAS-FIRED HEATERS 38.5 MMBTU/HR 9-H1 AND 30.8 MMBTU/HR 9-H2 EACH WITH A CALLIDUS LOW NOX BURNER 18.2 MMBTU/HR 9-H3 AND 9.2 MMBTU/HR 9-H4 EACH WITH A JOHN ZINK COOLSTAR LOW NOX BURNER, SEPARATOR 9-V3, DEPROPANIZER 9-V4 10.1 MMBTU/HR REBOILER HEATER 9-H5 WITH A JOHN ZINK COOLSTAR LOW NOX BURNER, AND MISC PUMPS, PIPING, & VESSELS - AREA 1: PIPING MODIFICATIONS FOR PROCESSING OF GAS OIL

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4, [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Fugitive volatile organic compound (VOC) emissions shall not exceed 26.3 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

S-33-12-11 Dec 30 2013 2:02PM - RINALDIR : John inspection NOT Required

5. Leaks from valves, connectors, and other components (except pumps and compressor seals) associated with piping modifications to route hydrogen rich stream from Catalytic Reforming Unit # 9-D8 to CD Hydro Tech and subject to the provisions of Rule 4455 shall be defined as a VOC reading in excess of 100 ppmv above background on a portable hydrocarbon detection instrument calibrated with methane per EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Components shall be screened and leak rate shall be measured in accordance with the frequency of inspection specified in Rule 4455 as applicable. [District Rule] Federally Enforceable Through Title V Permit
7. Permittee shall meet all applicable requirements of NSPS Subparts A and J. [District Rule 4001] Federally Enforceable Through Title V Permit
8. Except during startup and shutdown, heaters 9H1 - 9H4 (common stack) and 9H5 emission rates shall not exceed any of the following: NOx (as NO2): 0.036 lb/MMBtu or 30 ppmvd @ 3% O2, CO: 400 ppmvd @ 3% O2, VOC: 0.0055 lb/MMBtu, PM10: 0.0076 lb/MMBtu, or SOx (as SO2): 0.0286 lb/MMBtu. [District Rules 2201, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
9. Emission rates from heater 9H1 shall not exceed any of the following: PM10: 7.0 lb/day, SOx (as SO2): 26.4 lb/day, VOC: 1.7 lb/day, NOx (as NO2): 166.3 lb/day or 12,155 lb/year, or CO: 277.2 lb/day or 22,664 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Emission rates from heater 9H2 shall not exceed any of the following: PM10: 5.6 lb/day, SOx (as SO2): 21.1 lb/day, VOC: 4.1 lb/day, NOx (as NO2): 133.1 lb/day or 9,709 lb/year, or CO: 221.8 lb/day or 18,131 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emission rates from heater 9H3 shall not exceed any of the following: PM10: 3.3 lb/day, SOx (as SO2): 12.5 lb/day, VOC: 2.4 lb/day, NOx (as NO2): 78.6 lb/day or 5,731 lb/year, or CO: 131.0 lb/day or 10,714 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Emission rates from heater 9H4 shall not exceed any of the following: PM10: 1.7 lb/day, SOx (as SO2): 6.3 lb/day, VOC: 1.2 lb/day, NOx (as NO2): 39.7 lb/day or 2,884 lb/year, or CO: 66.2 lb/day or 5,416 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Emission rates from heater 9H5 shall not exceed any of the following: PM10: 1.8 lb/day, SOx (as SO2): 6.9 lb/day, VOC: 1.3 lb/day, NOx (as NO2): 43.6 lb/day or 3,176 lb/year, or CO: 72.7 lb/day or 5,946 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. For heaters 9H1, 9H2, 9H3, 9H4, & 9H5, compliance with annual CO emission rate shall be determined by using CO emission concentrations obtained during monthly monitoring as required in this permit, fuel use, fuel heating value, and stack gas flow rate. Records of calculated CO emissions shall be maintained for a period of five years and made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
15. For heaters 9H1, 9H2, 9H3, 9H4, & 9H5, duration of start-up and shutdown shall not exceed 2 hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
16. Permittee shall maintain records of duration of each start-up and shutdown for a period of five years and make such records readily available for District inspection upon request. [District Rules 2080, 4305, and 4306] Federally Enforceable Through Title V Permit
17. For each heater, the permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

Permit #: S-33-52-17	Last Updated
Facility: ALON	04/22/2013 LEONARDS
BAKERSFIELD REFINING	

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	77994.0	14929.0	4723.0	186417.0	277143.0
Daily Emis. Limit (lb/Day)	213.7	40.9	12.9	510.7	759.3
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	0.0
Q2:	0.0	0.0	0.0	0.0	0.0
Q3:	0.0	0.0	0.0	0.0	0.0
Q4:	0.0	0.0	0.0	0.0	0.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Dffset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

13. Leaks from valves and connectors associated with depentanizer (26-V13) fractionation trays, reboiler steam condensate balance drum (26-D31), 2 feed/bottoms exchangers (26-E45 A/B), 2 overhead condensers (26-E46 A/B), distillate cooler (26-E47), 2 bottoms pumps (26-P37 A/B), 2 reflux pumps (26 P38 A/B) and subject to the provisions of Rule 4455 shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background when measured one (1) cm from potential source. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Leaks from seals on pumps 26-P37A/B and 26-P38A/B and subject to the provisions of Rule 4455 shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background when measured one (1) cm from potential source. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Fugitive volatile organic compound (VOC) emissions, as determined by annual component count and District approved emission factors, shall not exceed 761.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Heaters 26H12 and 26H17 emission rates shall not exceed NOx (as NO2): 0.18 lb/MMBtu or 147 ppmvd @ 3% O2, and CO: 400 ppmvd @ 3% O2. Emission limits are on a one hour average. [District Rule 2201, 4305, and 4351] Federally Enforceable Through Title V Permit
→ \$ Make add retrofit to 2H21 going to 150
17. Emissions from heaters 26H11A/B, 26H13 and 26H15 shall not exceed any of the following limits: 0.0364 lb/MMBtu or 30 ppmvd NOx @ 3% O2, 0.024 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 400 ppmvd CO @ 3% O2 or 0.296 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
Redo Settings
18. For heaters 26H11A/B, 26H13 and 26H15, the permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
19. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
21. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-33-56-27

EXPIRATION DATE: 08/31/2016

SECTION: 28 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

HYDROCRACKER UNIT #21 INCLUDING 9 HEATERS, CATALYTIC ASSEMBLY, AND MISC AIR COOLERS, EXCHANGERS, DRUMS, AND PUMPS - AREA 2

PERMIT UNIT REQUIREMENTS

1. Fugitive volatile organic compound (VOC) emissions shall not exceed 136.3 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), Correlation Equations Method. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Leaks from valves, connectors, and other components (except pumps and compressor seals) associated with piping modifications to install bypasses and spillbacks around various heat exchangers, vessels and compressors; piping modifications to route a line from 21-E66 to 21-V12; piping modifications to put heaters 21-H20 and 21-H17 into rerun feed service; piping modifications to configure 21-V18 into diesel sidestripper for 21-V14; piping modifications to route hydrocracker naphtha to depentanizer and subject to the provisions of Rule 4455 shall be defined as a VOC reading in excess of 100 ppmv above background on a portable hydrocarbon detection instrument calibrated with methane per EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Components shall be screened and leak rate shall be measured in accordance with the frequency of inspection specified in Rule 4455 as applicable. [District Rule] Federally Enforceable Through Title V Permit
5. Hydrocracker unit shall include two 40.0 MMBtu/hr charge heaters (21H11 and 21H12), two 18.1 MMBtu/hr heaters (21H13 and 21H14), two 11.4 MMBtu/hr heaters (21H15 and 21H16), one 27.8 MMBtu/hr heater (21H17), one 34.6 MMBtu/hr heater (21H18), one 65.0 MMBtu/hr heater (21H20), catalytic assembly, miscellaneous air coolers, heat exchangers, drums, pumps, piping, and vessels. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Firing rate of heater 21H20 shall not exceed 65.0 MMBtu/hr. [District Rules 2201 and 4306] Federally Enforceable Through Title V Permit
7. Continuous records of heater 21H20's firing rate, including volumetric fuel consumption rate (corrected for temperature) and hhv of fuel burned shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Except during startup and shutdown, heater 21H18 emission rates shall not exceed the following: NO_x (as NO₂) 0.036 lb/MMBtu or 30 ppmvd @ 3% O₂, CO: 0.075 lb/MMBtu or 100 ppmv @ 3% O₂, VOC: 0.005 lb/MMBtu, and PM₁₀: 0.014 lb/MMBtu. [District Rules 2201, 4305, 4306, 4351] Federally Enforceable Through Title V Permit
9. Heater 21H20 emission rates shall not exceed NO_x (as NO₂): 0.036 lb/MMBtu or 30 ppmv @ 3% O₂, and CO: 400 ppmv @ 3% O₂. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
10. Except during startup and shutdown, heater 21H11 emission rates shall not exceed NO_x (as NO₂) 30 ppmvd @ 3% O₂, CO: 100 ppmvd @ 3% O₂, VOC: 0.003 lb/MMBtu, and PM₁₀: 0.014 lb/MMBtu. [District Rules 2201, 4305, 4306, 4351] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

11. Except during startup and shutdown, heater 21H12 emission rates shall not exceed any of the following: NOx (as NO2): 30 ppmv @ 3% O2, CO: 100 ppmvd @ 3% O2, VOC: 0.003 lb/MMBtu, PM10: 0.014 lb/MMBtu, or SOx (as SO2): 0.0286 lb/MMBtu. [District Rules 2201, 4305, 4306, 4351] Federally Enforceable Through Title V Permit
12. Except during startup and shutdown, heaters 21H13 through 21H17 emission rates shall not exceed: NOx (as NO2): 0.036 lb/MMBtu or 30 ppmvd @ 3% O2, CO: 400 ppmvd @ 3% O2, VOC: 0.0055 lb/MMBtu, PM10: 0.0076 lb/MMBtu, or SOx (as SO2): 0.0286 lb/MMBtu.. [District Rules 2201, 4305, 4306, 4351] Federally Enforceable Through Title V Permit
13. Emission rates from heater 21H11 shall not exceed any of the following: PM10: 13.4 lb/day, SOx (as SO2): 27.5 lb/day, VOC: 2.9 lb/day, NOx (as NO2): 34.6 lb/day, or CO: 72.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit
14. Emission rates from heater 21H12 shall not exceed any of the following: PM10: 13.4 lb/day, SOx (as SO2): 27.5 lb/day, VOC: 2.9 lb/day, NOx (as NO2): 34.6 lb/day, or CO: 72.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit
15. Emission rates from heater 21H13 shall not exceed any of the following: PM10: 3.3 lb/day, SOx (as SO2): 12.4 lb/day, VOC: 2.4 lb/day, NOx (as NO2): 36.9 lb/day or 5,694 lb/year, or CO: 130.3 lb/day or 10,655 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Emission rates from heater 21H14 shall not exceed any of the following: PM10: 3.3 lb/day, SOx (as SO2): 12.4 lb/day, VOC: 2.4 lb/day, NOx (as NO2): 36.9 lb/day or 5,694 lb/year, or CO: 130.3 lb/day or 10,655 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Emission rates from heater 21H15 shall not exceed any of the following: PM10: 2.1 lb/day, SOx (as SO2): 7.8 lb/day, VOC: 1.5 lb/day, NOx (as NO2): 23.3 lb/day or 3,577 lb/year, or CO: 82.1 lb/day or 6,711 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Emission rates from heater 21H16 shall not exceed any of the following: PM10: 2.1 lb/day, SOx (as SO2): 7.8 lb/day, VOC: 1.5 lb/day, NOx (as NO2): 23.3 lb/day or 3,577 lb/year, or CO: 82.1 lb/day or 6,711 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Emission rates from heater 21H17 shall not exceed any of the following: PM10: 5.1 lb/day, SOx (as SO2): 19.1 lb/day, VOC: 3.3 lb/day, NOx (as NO2): 56.7 lb/day or 8,760 lb/year, or CO: 200.2 lb/day or 16,365 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Emission rates from heater 21H18 shall not exceed any of the following: PM10: 6.3 lb/day, SOx (as SO2): 23.7 lb/day, VOC: 4.2 lb/day, NOx (as NO2): 70.6 lb/day, or CO: 62.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
21. For heater 21H11 through 21H18, duration of start-up and shutdown shall not exceed 2 hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 4305 & 4306] Federally Enforceable Through Title V Permit
22. Permittee shall maintain records of duration of each start-up and shutdown for a period of five years and make such records readily available for District inspection upon request. [District Rules 2080, 4305 & 4306] Federally Enforceable Through Title V Permit
23. For heaters 21H13, 21H14, 21H15, 21H16, and 21H17, compliance with annual CO emission rate shall be determined by using CO emission concentrations obtained during monthly monitoring as required in this permit, fuel use, fuel heating value, and stack gas flow rate. Records of calculated CO emissions shall be maintained for a period of five years and made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
24. For each heater, permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Permit#: S 33 -63 -12 Implemented: 01/05/12

Facility: ALON BAKERSFIELD REFINING

Last Updated
08/04/01 SCANDURL

Equipment Yes
Prebaselined No

PM2.5/PM10 %
PM2.5 (lb/Yr)

NOX

SOX

PM10

CO

VOC

Potential to Emit (lb/Yr):

0

0

0

0

0

Daily Emis. Limit (lb/Day):

0.0

0.0

0.0

0.0

0.0

SLC ID (PTE):

SLC ID (DEL):

View CEM Alarm Settings

Facility SIC

Cancel

Save

13. All openings in the roof used for sampling or gauging, except pressure-vacuum valves, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal, or lid. The cover, seal, or lid shall at all times be in a closed position, with no visible gaps and leak-free, except when the device or appurtenance is in use for sampling or gauging. [District Rule 4623, 5.5.1] Federally Enforceable Through Title V Permit
14. Any roof drain shall be provided with a slotted membrane fabric cover, or equivalent, that covers at least 90% of the area of the opening. [District Rule 4623, 5.5.2.2.5] Federally Enforceable Through Title V Permit
15. The permittee shall keep accurate records of Reid vapor pressure, storage temperature and types of liquids stored, and shall make such records available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit
16. True vapor pressure of the stored liquid shall not exceed 11 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
17. Tank organic liquid throughput shall not exceed 192,000 bbl/day. Permittee shall maintain daily records of tank throughput and shall make such records readily available for District inspection upon request. [District NSR Rule and 1070] Federally Enforceable Through Title V Permit
18. Except for automatic bleeder vents, rim vents, and pressure relief vents, each opening in a non-contact external floating roof shall provide a projection below the liquid surface. [District Rule 4623, 5.5.2.2.1] Federally Enforceable Through Title V Permit
19. Except for automatic bleeder vents and rim vents, roof drains, and leg-sleeves, each opening in the roof shall be equipped with a gasketed cover, seal, or lid that shall be maintained in a closed position at all times (i.e., no visible gap) except when in actual use. [District Rule 4623, 5.5.2.2.2] Federally Enforceable Through Title V Permit
20. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [District Rule 4623, 5.5.2.2.3] Federally Enforceable Through Title V Permit
21. Rim vents shall be equipped with a gasket and shall be set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. [District Rule 4623, 5.5.2.2.4] Federally Enforceable Through Title V Permit
22. External floating roof legs shall be equipped with vapor socks or vapor barriers in order to maintain a gas-tight condition so as to prevent VOC emissions from escaping through the roof leg opening. [District Rule 4623, 5.5.2.2.6] Federally Enforceable Through Title V Permit
23. Solid sampling or gauging wells, and similar fixed projections through a floating roof such as an anti-rotational pipe, shall provide a projection below the liquid surface. The well shall be equipped with a pole wiper and a gasketed cover, seal or lid which shall be in a closed position at all times (i.e., no visible gap) except when the well is in use. The gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed one-half (1/2) inch. [District Rule 4623, 5.5.2.3] Federally Enforceable Through Title V Permit
24. Slotted sampling or gauging wells shall provide a projection below the liquid surface. The well on external floating roof shall be equipped with the following: a sliding cover, a well gasket, a pole sleeve, a pole wiper, and an internal float and float wiper designed to minimize the gap between the float and the well, and provided the gap shall not exceed one-eighth (1/8) inch; or shall be equipped with a well gasket, a zero gap pole wiper seal and a pole sleeve that projects below the liquid surface. The gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed one-eighth (1/8) inch. [District Rule 4623, 5.5.2.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-33-124-9

EXPIRATION DATE: 08/31/2016

SECTION: 28 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

GAS PLANT #2 INCLUDING AMINE REGENERATION SYSTEM, VOC COALESCER, DRYER SYSTEM, DE-ETHANIZER, DE-PROPANIZER, PIPING TO SRU #1 (PTO #S-33-16) AND MISC. PUMPS, PIPING AND VESSELS

PERMIT UNIT REQUIREMENTS

1. Off-gases from HTU #3 desulfurizer stripper (#S-33-52) and HCU debutanizer (#S-33-53) shall be routed to an amine absorber for sulfur removal prior to combustion, except during breakdown conditions pursuant to Rule 1100. [District NSR Rule] Federally Enforceable Through Title V Permit
2. All amine regenerator off-gas from this permit unit shall be desulfurized at SRU #1 (S-33-16) and/or SRU #3 (S-33-338), except during breakdown conditions pursuant to Rule 1100. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Fugitive VOC emissions from permit unit shall not exceed 377.0 lb per day. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Permittee shall maintain accurate records of fugitive component counts and resulting emissions calculated using API Publication 4322, Table E-3, and U.S. EPA Publication 453/R-93-026, Tables 2-2 and 2-5, or other District approved emission factors. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Compliance with fugitive VOC emission limit shall be demonstrated by annual component count and District approved emission factors. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Fuel oil contribution to total heat input shall not exceed the following percentages: 70% for crude heaters (11H11 and 11H12) and boilers (81B17 and 81B18) and 63% for vacuum heater (18H11). [District NSR Rule] Federally Enforceable Through Title V Permit
7. Permittee shall maintain accurate records of fuel oil contribution to total heat input for crude heaters (11H11 & 11H12), boilers (81B17 & 81B18), and vacuum heater (18H11), and shall make such records readily available for District inspection. [District Rule 1070] Federally Enforceable Through Title V Permit
8. Except for complying with the applicable requirements of Sections 6.1 and 7.3, the requirements of this rule shall not apply to 1) components subject to Rule 4623 (adopted 5/19/05), 2) pressure relief devices, pumps, and compressors equipped with a closed vent system as defined in Section 3.0, 3) components buried below ground, 4) components exclusively handling liquid streams which have less than 10 percent by weight (<10 wt%) evaporation at 150 C, 5) components exclusively handling liquid streams with a VOC content less than ten percent by weight (<10 wt%), 6) components exclusively handling gas/vapor streams with a VOC content of less than one percent by weight (<1wt%), 7) components incorporated in lines exclusively in vacuum service, 8) components exclusively handling commercial natural gas, and 9) one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the Air Pollution Control Officer (APCO) to be leak-free based on initial inspection. [District Rule 4455, 4.1 & 4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: ALON BAKERSFIELD REFINING

Location: 8451 ROSEDALE HWY (AREA 1 & 2), BAKERSFIELD, CA 93308

S-33-124-9; Dec 23 2013 11:32AM - RINALDIR

7. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
8. Permittee shall meet all applicable requirements of NSPS Subparts A, J, GGG, and QQQ. [District Rule 4001] Federally Enforceable Through Title V Permit
9. Except during startup and shutdown, heater 27H1 emission rates shall not exceed the following: PM10: 0.014 lb/MMBtu, NOx: 0.036 lb/MMBtu or 30 ppmv @ 3% O2, VOC: 0.005 lb/MMBtu, and CO: 100 ppmv @ 3% O2. Emission limits are on a one hour average. [District NSR Rule, 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
10. Emission rates from heater 27H1 shall not exceed any of the following: PM10: 16.8 lb/day, SOx (as SO2): 34.3 lb/day, VOC: 6.0 lb/day, NOx (as NO2): 43.2 lb/day, or CO: 90.0 lb/day [District NSR Rule] Federally Enforceable Through Title V Permit
11. For heater 27H1, duration of start-up and shutdown shall not exceed 2 hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
12. Permittee shall maintain records of duration of each start-up and shutdown for a period of five years and make such records readily available for District inspection upon request. [District Rules 2080, 4305 and 4306] Federally Enforceable Through Title V Permit
13. For each heater, permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
14. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
16. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
17. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

18. Source testing to measure natural gas-combustion NO_x and CO emissions from each heater shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
20. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
21. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
22. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, 4351] Federally Enforceable Through Title V Permit
23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
24. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
25. Fugitive volatile organic compound (VOC) emissions, as determined by annual component count and CAPCOA revised 1995 EPA Correlation Equations and Factors for Refineries and Marketing Terminals, Table IV-3a, shall not exceed 92.9 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
26. Leaks from valves and connectors associated with the LUX sulfur absorbers 27-D3 A/B and subject to the provisions of Rule 4455 shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 100 ppmv above background. [District NSR Rule] Federally Enforceable Through Title V Permit
27. Leaks from seals on pump 27-P3 and subject to the provisions of Rule 4455 shall be defined as a reading of methane on a portable hydrocarbon detection instrument in excess of 500 ppmv above background. [District NSR Rule] Federally Enforceable Through Title V Permit
28. Permittee shall maintain records of hhv of fuel burned and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
29. The number of representative units source tested for NO_x emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 4306, 6.3.2.5] Federally Enforceable Through Title V Permit
30. The portable analyzer shall be calibrated prior to each use with a two-point calibration method (zero and span). Calibration shall be performed with certified calibration gases. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
31. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
32. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
33. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-33-372-3

EXPIRATION DATE: 08/31/2016

SECTION: 27 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

LIQUEFIED PETROLEUM GAS AND NATURAL GASOLINE EAST AND WEST TRUCK LOADING/UNLOADING LANES WITH SEVEN PUMPS SERVED BY VAPOR RECOVERY SYSTEM

PERMIT UNIT REQUIREMENTS

1. Organic liquid transfer shall be with vapor control such that VOC emissions do not exceed 0.08 lb per 1000 gallons of liquid loaded. [District Rule 4624, 4.1] Federally Enforceable Through Title V Permit
2. Vacuum purge system shall be activated prior to transport tank disconnect to displace organic vapors to vapor recovery system. [District Rule 4624] Federally Enforceable Through Title V Permit
3. Operator shall ensure all required source testing conforms to the compliance testing procedures described in District Rule 1081 (as amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
4. The vapor collection and control system shall operate such that the pressure in the delivery tank being loaded does not exceed 18 inches water column pressure and 6 inches water column vacuum. This requirement shall not apply to the transfer of liquid petroleum gas. [District Rules 4624, 5.4] Federally Enforceable Through Title V Permit
5. All delivery tanks which previously contained organic liquids, including gasoline, with a TVP greater than 1.5 psia at loading conditions shall be filled only at Class 1 loading facilities using bottom loading equipment with a vapor collection and control system operating such that VOC emissions do not exceed 0.08 lb/1000 gallons loaded. [District Rules 4624, 5.5] Federally Enforceable Through Title V Permit
6. Construction, reconstruction, or expansion of any top loading facility shall not be allowed. [District Rule 4624, 5.7] Federally Enforceable Through Title V Permit
7. Transfer and vapor collection equipment shall be designed, installed, maintained and operated such that there are no leaks or excess organic liquid drainage at disconnections. A leak shall be defined as the dripping of organic compounds at a rate of more than three drops per minute or the detection of organic compounds, in excess of 10,000 ppm as methane measured at a distance of one centimeter from the potential source in accordance with EPA Method 21. Excess liquid drainage shall be defined as exceeding 10 mL, per average of 3 consecutive disconnects. [District Rule 4624, 3.13, 3.17, 5.6] Federally Enforceable Through Title V Permit
8. During the transfer of organic liquids, the operator shall perform and record the results of monthly leak inspections of the loading and vapor collection equipment at each transfer rack. Leak inspections shall be conducted using sight, sound, or smell. Once each calendar quarter, in lieu of the regular monthly monitoring, the operator shall monitor the vapor collection and control system and each transfer rack using a portable hydrocarbon detection instrument in accordance with EPA Method 21. [District Rule 4624, 5.9.1 and 6.3.8, and 40 CFR 60.502(j)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Permit #: S 33 -372 -3 Implemented: 01/05/12
Facility: ALON BAKERSFIELD REFINING

Last Updated
07/08/04 GILLS

Equipment Yes
Prebaselined: No

PM2.5/PM10 %
PM2.5 (lb/Yr)

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="1752"/>
Daily Emis. Limit (lb/Day):	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="4.8"/>

SLCID (PTE):
SLCID (DEL):

[View CEM Alarm Settings](#) [Facility SLC](#) [Exit](#)

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3303-1-5

EXPIRATION DATE: 08/31/2016

SECTION: 27 TOWNSHIP: 29S RANGE: 27E

EQUIPMENT DESCRIPTION:

TRUCK LOADING OPERATION INCLUDING 36 BOTTOM LOADING ARMS, 6 TOP LOADING ARMS AND VAPOR RECOVERY ARMS SERVED BY VAPOR RECOVERY SYSTEM LISTED ON PERMIT S-33-41

PERMIT UNIT REQUIREMENTS

1. Loading arms shall establish a seal with delivery vessels that is leak-free, as defined in Rule 4624 (amended December 20, 2007). [District Rule 4624, 5.6] Federally Enforceable Through Title V Permit
2. Top loading arms shall be used to load fuel oil and residual oil only. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Throughput of fuel oil and vacuum residue from this permit unit this shall not exceed 1,056,000 gallons per day. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Vapor return arms shall be connected during diesel loading if TVP exceeds 0.008 psia at loading conditions. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Vapor return arms shall be connected during diesel loading if vessel being loaded previously carried petroleum liquid with TVP greater than 0.008 psia at loading conditions. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Vapor return arms shall be connected during gas oil, fuel oil, heavy fuel oil or vacuum residue loading with TVP greater than 0.0012 psia at loading conditions. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Vapor return arms shall be connected during gas oil, fuel oil, heavy fuel oil or vacuum residue loading if vessel being previously loaded carried petroleum liquid with TVP greater than 0.0012 psia at loading conditions. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Hose couplers shall be of dry-break type to prevent liquid spill upon disconnection. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Liquid and vapor hoses, couplers, fittings and piping shall be maintained in a condition that is leak-free, as defined in Rule 4624 (amended December 20, 2007). [District Rule 4624, 5.6] Federally Enforceable Through Title V Permit
10. VOC emission rate, excluding leakage, shall not exceed 2.0 lb/hr from this permit unit. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Gasoline loading leakage and spillage shall not exceed 4.6 lb/day from this permit unit. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Operator shall ensure that all required source testing conforms to the compliance testing procedures described in District Rule 1081 (as amended December 16, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit
13. Operator shall maintain all records of required monitoring data and support information for inspection for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

APPENDIX G
PE2 and Sample Calculations

Proposed Alon Bakersfield Refinery Crude Flexibility Project

Increases in Fugitive VOC Emissions, by Unit, IPE. PE2 = PE1 + IPE

VOC Emissions			VOC Emissions, lb/yr									
Component Type	Service	VOC EF (lb/yr/comp)	S-33-11-13 Unit 8	S-33-12-12 Unit 9	S-33-8-26 Unit 10	Unit 10 - Flash Tower	S-33-9-18 Unit 11	S-33-10-8 Unit 12	S-33-13-24 Unit 14	S-33-56-30 Unit 21	S-33-52-18 Unit 26	S-33-349-18 Unit 27
flanges	V	5.72E-01	-	-	2.86	12.58	-	-	184.16	-	-	45.75
	LL	8.88E-01	15.14	3.44	31.65	-	-	32.34	39.90	44.03	24.08	147.92
	HL	8.88E-01	-	-	70.17	110.08	6.19	-	48.16	-	10.32	-
valve	V	4.88E-01	-	-	1.95	2.44	-	-	130.38	-	-	46.88
	LL	9.03E-01	18.96	4.51	40.62	-	-	54.16	45.13	51.45	40.62	245.53
	HL	9.03E-01	-	-	148.04	139.01	9.03	-	78.53	-	4.51	-
connector	V	2.58E-01	-	-	0.77	10.57	-	-	36.10	-	-	35.33
	LL	2.49E-01	2.99	1.25	8.48	-	-	11.47	7.48	12.47	8.23	125.15
	HL	2.49E-01	-	-	35.40	71.80	1.99	-	15.46	-	1.25	-
compressor seal	V	6.24E+01	-	-	-	-	-	124.87	-	-	-	
pump seal	LL	2.79E+01	-	-	55.70	-	-	-	-	-	-	-
	HL	2.79E+01	-	-	-	-	-	-	111.40	-	-	-
other	V	1.55E+00	-	-	-	-	-	-	-	-	-	-
	LL	8.26E-01	-	-	-	-	-	-	-	-	-	-
	HL	8.26E-01	-	-	-	-	-	-	-	-	-	-
pressure relief device	V	8.08E-01	-	-	-	-	-	-	-	-	-	-
	LL	1.58E+00	-	-	-	-	-	-	-	-	-	-
	HL	1.58E+00	-	-	-	-	-	-	-	-	-	-
drain	LL	3.40E+00	-	-	-	-	-	-	-	-	-	-
	HL	3.40E+00	-	-	-	-	-	-	-	-	-	-
Total VOC	V		-	-	5.59	25.60	-	-	475.51	-	-	127.96
	LL		37.08	9.20	136.45	-	-	97.96	92.52	107.95	72.93	518.60
	HL		-	-	253.62	320.89	17.21	-	253.55	-	16.08	-
Total VOC			37.08	9.20	396.66	346.49	17.21	97.96	821.58	107.95	89.01	646.66

Proposed Alon Bakersfield Refinery Crude Flexibility Project

Increases in Fugitive VOC Emissions, by Unit, IPE. PE2 = PE1 + IPE

VOC Emissions			VOC Emissions, lb/yr						
Component Type	Service	VOC EF (lb/yr/comp)	S-33-444-0 T10M25	S-33-445-0 T10M26	S-33-446-0 T150M01	S-33-447-0 T150M02	S-33-124 Unit 25	S-33-440-0 Rail Unloading Rack	S-3303-1-6 Terminal Load Rack
flanges	V	5.72E-01	37.75	37.75	36.60	36.60	335.14	-	-
	LL	5.88E-01	13.76	13.76	13.76	13.76	-	1,143.44	104.57
	HL	6.88E-01	-	-	-	-	-	-	-
valve	V	4.88E-01	2.93	2.93	-	-	204.12	-	-
	LL	9.03E-01	66.80	66.80	67.70	67.70	-	612.02	54.16
	HL	9.03E-01	-	-	-	-	-	-	-
connector	V	2.58E-01	252.21	252.21	40.23	40.23	23.72	-	-
	LL	2.49E-01	1.25	1.25	1.25	1.25	-	243.82	39.64
	HL	2.49E-01	-	-	-	-	-	-	-
compressor seal	V	6.24E+01	-	-	-	-	249.74	-	-
pump seal	LL	2.79E+01	83.55	83.55	83.55	83.55	-	501.32	-
	HL	2.79E+01	-	-	-	-	-	-	-
other	V	1.55E+00	-	-	-	-	-	-	-
	LL	6.26E-01	-	-	-	-	-	44.60	-
	HL	8.28E-01	-	-	-	-	-	-	-
pressure relief device	V	8.08E-01	3.23	3.23	4.85	4.85	-	-	-
	LL	1.58E+00	-	-	-	-	-	28.38	-
	HL	1.58E+00	-	-	-	-	-	-	-
drain	LL	3.40E+00	-	-	-	-	-	-	-
	HL	3.40E+00	-	-	-	-	-	-	-
Total VOC	V		296.12	296.12	81.68	81.68	812.73	-	-
	LL		165.36	165.36	166.26	166.26	-	2,573.58	198.37
	HL		-	-	-	-	-	-	-
Total VOC			461.47	461.47	247.94	247.94	812.73	2,573.58	198.37

Notes:

1: Emissions from heavy liquid components are calculated using the light liquid service emission factor (conservative assumption). Note that the SJVAPCD does not assess emissions from heavy liquid components with an API gravity less than 30.

2. Calculate VOC emissions from component counts as follows:

$$[\text{VOC lb/yr}]_{\text{comp type \& service}} = \sum [\# \text{ components}]_{\text{comp type \& service}} \times (\text{EF, lb/yr/component})_{\text{comp type \& service}}$$

Sample PE2 Fugitive Emission Calculations for Hydrotreater Unit #8 (S-33-11-13):

This calculation protocol was also used on the following permit units: S-33-8-26, '-9-18, '-10-8, '-11-13, '-12-12, '-13-25, '-49-8, '-52-18, '-56-30, '-63-13, '-112-5, '-124-10, '-138-7, '-139-5, '-349-18, '-372-4, '-440-0, '-444-0, '-445-0, '-446-0, '-447-0 and S-3303-1-6

Equation:

Fugitive Emission Formulas (PE, lb/year)

$$PE_{VOC} = \sum_{CompType} \sum_{Service} [\# Components]_{CompType,Service} \times [EF, lb/year/component]_{CompType,Service}$$

$$\begin{aligned} Unit8 PE_{VOC} = & ([\# Comp] \times [EF])_{Flange,V} + ([\# Comp] \times [EF])_{Flange,LL} \\ & + ([\# Comp] \times [EF])_{Flange,HL} + ([\# Comp] \times [EF])_{Valve,V} \\ & + ([\# Comp] \times [EF])_{Valve,LL} + ([\# Comp] \times [EF])_{Valve,HL} \\ & + ([\# Comp] \times [EF])_{Connect,V} + ([\# Comp] \times [EF])_{Connect,LL} \\ & + ([\# Comp] \times [EF])_{Connect,HL} + ([\# Comp] \times [EF])_{Compressor,V} \\ & + ([\# Comp] \times [EF])_{PumpSeal,LL} + ([\# Comp] \times [EF])_{PumpSeal,HL} \\ & + ([\# Comp] \times [EF])_{Other,V} + ([\# Comp] \times [EF])_{Other,LL} \\ & + ([\# Comp] \times [EF])_{Other,HL} + ([\# Comp] \times [EF])_{PRD,V} + ([\# Comp] \times [EF])_{PRD,LL} \\ & + ([\# Comp] \times [EF])_{PRD,HL} + ([\# Comp] \times [EF])_{Drain,LL} \\ & + ([\# Comp] \times [EF])_{Drain,HL} \end{aligned}$$

Calculation:

$$\begin{aligned} Unit8 PE_{VOC} = & 37.08 \frac{lb}{year} = \left(\frac{0 \times 0.5719 \frac{lb}{comp}}{yr} \right)_{Flange,V} + (22 \times 0.6880 \text{ lb/comp/yr})_{Flange,LL} \\ & + (0 \times 0.6880 \text{ lb/comp/yr})_{Flange,HL} + (0 \times 0.4883 \text{ lb/comp/yr})_{Valve,V} \\ & + (21 \times 0.9027 \text{ lb/comp/yr})_{Valve,LL} + (0 \times 0.9027 \text{ lb/comp/yr})_{Valve,HL} \\ & + (0 \times 0.2579 \text{ lb/comp/yr})_{Connect,V} + (12 \times 0.2493 \text{ lb/comp/yr})_{Connect,LL} \\ & + (0 \times 0.2493 \text{ lb/comp/yr})_{Connect,HL} + (0 \times 62.4358 \text{ lb/comp/yr})_{Compressor,V} \\ & + (0 \times 27.8512 \text{ lb/comp/yr})_{PumpSeal,LL} + (0 \times 27.8512 \text{ lb/comp/yr})_{PumpSeal,HL} \\ & + (0 \times 1.5473 \text{ lb/comp/yr})_{Other,V} + (0 \times 0.8259 \text{ lb/comp/yr})_{Other,LL} \\ & + (0 \times 0.8259 \text{ lb/comp/yr})_{Other,HL} + (0 \times 0.8082 \text{ lb/comp/yr})_{PRD,V} \\ & + (0 \times 1.5768 \text{ lb/comp/yr})_{PRD,LL} + (0 \times 1.5768 \text{ lb/comp/yr})_{PRD,HL} \\ & + (0 \times 3.4019 \text{ lb/comp/yr})_{Drain,LL} + (0 \times 3.4019 \text{ lb/comp/yr})_{Drain,HL} \end{aligned}$$

Sample PE2 Calculations for the new boilers (S-33-441, '-442, '-443):

This calculation protocol was also used on the following permit units: S-33-52, '-56 & '-349

Equations:

$$PE_{VOC} = \frac{EF_{VOC}}{1020 \text{ Btu/scf}} \times \left(\frac{\text{MMBtu}}{\text{hr}} \right) \times (24 \text{ hr/day})$$

$$PE_{PM10} = \frac{EF_{PM10}}{1020 \text{ Btu/scf}} \times \left(\frac{\text{MMBtu}}{\text{hr}} \right) \times (24 \text{ hr/day})$$

$$PE_{NOx} = \frac{\text{ppm NOx}}{10^6} \times MW_{NOx} \times \frac{(F - \text{Factor})}{379 \text{ scf/lb} \cdot \text{mol}} \times \frac{20.95}{20.95 - \%O_2} \times \left(\frac{\text{MMBtu}}{\text{hr}} \right) \times (24 \text{ hr/day})$$

$$PE_{CO} = \frac{\text{ppm CO}}{10^6} \times MW_{CO} \times \frac{(F - \text{Factor})}{379 \text{ scf/lb} \cdot \text{mol}} \times \frac{20.95}{20.95 - \%O_2} \times \left(\frac{\text{MMBtu}}{\text{hr}} \right) \times (24 \text{ hr/day})$$

$$PE_{SOx} = \left(\text{Fuel S, } \frac{\text{gr}}{100 \text{ scf fuel}} \right) \times \frac{10^6 \text{ scf}}{\text{MMscf}} \times \frac{\text{lb}}{7000 \text{ gr}} \times \frac{MW_{SO_2}}{MW_S} \times \frac{1}{HHV} \times \left(\frac{\text{MMBtu}}{\text{hr}} \right) \times (24 \text{ hr/day})$$

Calculations:

$$PE_{VOC} = 2.72 \frac{\text{lb}}{\text{day}} = \frac{5.5 \text{ lb/MMscf}}{1020 \text{ lb/MMBtu}} \times \left(21 \frac{\text{MMBtu}}{\text{hr}} \right) \times (24 \text{ hr/day})$$

$$PE_{PM10} = 3.76 \frac{\text{lb}}{\text{day}} = \frac{7.6 \text{ lb/MMscf}}{1020 \text{ lb/MMBtu}} \times \left(21 \frac{\text{MMBtu}}{\text{hr}} \right) \times (24 \text{ hr/day})$$

$$\begin{aligned} PE_{NOx} &= 3.68 \frac{\text{lb}}{\text{day}} \\ &= \frac{6 \text{ ppm NOx}}{10^6} \times \left(46.01 \frac{\text{lb}}{\text{lb} \cdot \text{mol}} \right) \times \frac{8578 \text{ dscf/MMBtu}}{379 \text{ scf/lb} \cdot \text{mol}} \times \frac{20.95}{20.95 - 3} \times \left(21 \frac{\text{MMBtu}}{\text{hr}} \right) \\ &\quad \times (24 \text{ hr/day}) \end{aligned}$$

$$\begin{aligned} PE_{CO} &= 9.32 \frac{\text{lb}}{\text{day}} \\ &= \frac{25 \text{ ppm CO}}{10^6} \times \left(28.01 \frac{\text{lb}}{\text{lb} \cdot \text{mol}} \right) \times \frac{8578 \text{ dscf/MMBtu}}{379 \text{ scf/lb} \cdot \text{mol}} \times \frac{20.95}{20.95 - 3} \times \left(21 \frac{\text{MMBtu}}{\text{hr}} \right) \\ &\quad \times (24 \text{ hr/day}) \end{aligned}$$

$$\begin{aligned} PE_{SOx} &= 7.06 \frac{\text{lb}}{\text{day}} \\ &= \left(\frac{5 \text{ gr S}}{100 \text{ scf fuel}} \right) \times \frac{10^6 \text{ scf}}{\text{MMscf}} \times \frac{\text{lb}}{7000 \text{ gr}} \times \frac{64}{32} \times \frac{\text{scf}}{1020 \text{ Btu}} \times \left(21 \frac{\text{MMBtu}}{\text{hr}} \right) \\ &\quad \times (24 \text{ hr/day}) \end{aligned}$$

Alon Bakersfield Refinery Crude Flexibility Project

S-33-62 26-H13&16 Combustion Emissions

PE1 - Criteria Pollutant Emissions Based on Existing Permit Limits

Pollutant	EF	EF Units	EF Source	EF lb/MMBtu	Emissions	
					Pounds/Day	Tons/Year
VOC	5.5	lb/MMscf	AP-42 Chpt. 1.4	0.0054	1.94	0.35
NOx	30	ppmv @ 3% O ₂	Rule 4306	0.036	13.13	2.40
PM ₁₀	7.6	lb/MMscf	AP-42 Chpt. 1.4	0.0075	2.68	0.49
PM _{2.5}	7.6	lb/MMscf	Same as PM ₁₀	0.0075	2.68	0.49
CO	400	ppmv @ 3% O ₂	Rule 4306	0.2960	106.55	19.44
SO _x	5	gr S/100 scf fuel	Rule 4320, section 5.4.1	0.0119	4.29	0.78

PE2 - Criteria Pollutant Emissions

Pollutant	EF	EF Units	EF Source	EF lb/MMBtu	Emissions	
					Pounds/Day	Tons/Year
VOC	5.5	lb/MMscf	AP-42 Chpt. 1.4	0.0054	1.94	0.35
NOx	30	ppmv @ 3% O ₂	Rule 4306, Section 5.1.1	0.0365	13.13	2.40
PM ₁₀	7.6	lb/MMscf	AP-42 Chpt. 1.4	0.0075	2.68	0.49
PM _{2.5}	7.6	lb/MMscf	Same as PM ₁₀	0.0075	2.68	0.49
CO	200	ppmv @ 3% O ₂	Proposed by Alon	0.1480	53.27	9.72
SO _x	5	gr S/100 scf fuel	Rule 4320, section 5.4.1	0.0119	4.29	0.78

Alon Bakersfield Refinery Crude Flexibility Project

S-33-56 21-H21 Combustion Emissions

PE1 - Criteria Pollutant Emissions Based on Existing Permit Limits

Pollutant	EF	EF Units	EF Source	EF lb/MMBtu	Emissions	
					Pounds/ Day	Tons/Year
VOC	5.5	lb/MMscf	AP-42 Chpt. 1.4	0.0054	3.88	0.71
NOx	30	ppmv @ 3% O ₂	Rule 4306	0.038	28.25	4.79
PM ₁₀	7.6	lb/MMscf	AP-42 Chpt. 1.4	0.0075	5.38	0.98
PM _{2.5}	7.6	lb/MMscf	Same as PM ₁₀	0.0075	5.38	0.98
CO	400	ppmv @ 3% O ₂	Rule 4306	0.2880	213.09	38.89
SO _x	5	gr S/100 scf fuel	Rule 4320, section 5.4.1	0.0119	8.57	1.58

PE2 - Criteria Pollutant Emissions

Pollutant	EF	EF Units	EF Source	EF lb/MMBtu	Emissions	
					Pounds/ Day	Tons/Year
VOC	5.5	lb/MMscf	AP-42 Chpt. 1.4	0.0054	3.88	0.71
NOx	24	ppmv @ 3% O ₂	Proposed by Alon	0.0292	21.00	3.83
PM ₁₀	7.6	lb/MMscf	AP-42 Chpt. 1.4	0.0075	5.38	0.98
PM _{2.5}	7.6	lb/MMscf	Same as PM ₁₀	0.0075	5.38	0.98
CO	200	ppmv @ 3% O ₂	Proposed by Alon	0.1480	108.55	19.44
SO _x	5	gr S/100 scf fuel	Rule 4320, section 5.4.1	0.0119	8.57	1.58

Alon Bakersfield Refinery Crude Flexibility Project

ATC S-33-349 / 27-H2 Combustion Emissions

PE1 - Criteria Pollutant Emissions Based on Existing Permit Limits

Pollutant	EF	EF Units	EF Source	EF lb/MMBtu	Emissions	
					Pounds/ Day	Tons/Year
VOC	5.5	lb/MMscf	AP-42 Chpt. 1.4	0.0054	4.53	0.83
NO _x	30	ppmv @ 3% O ₂	Rule 4306	0.036	30.63	5.59
PM ₁₀	7.6	lb/MMscf	AP-42 Chpt. 1.4	0.0075	6.26	1.14
PM _{2.5}	7.6	lb/MMscf	Same as PM ₁₀	0.0075	6.26	1.14
CO	225	ppmv @ 3% O ₂	S-33-9-7	0.1685	139.84	25.52
SO _x	5	gr S/100 scf fuel	Rule 4320, section 5.4.1	0.0119	10.00	1.83

PE2 - Criteria Pollutant Emissions

Pollutant	EF	EF Units	EF Source	EF lb/MMBtu	Emissions	
					Pounds/ Day	Tons/Year
VOC	5.5	lb/MMscf	AP-42 Chpt. 1.4	0.0054	4.53	0.83
NO _x	24	ppmv @ 3% O ₂	Proposed by Alon	0.0292	24.50	4.47
PM ₁₀	7.6	lb/MMscf	AP-42 Chpt. 1.4	0.0075	6.26	1.14
PM _{2.5}	7.6	lb/MMscf	Same as PM ₁₀	0.0075	6.26	1.14
CO	200	ppmv @ 3% O ₂	Proposed by Alon	0.1480	124.31	22.69
SO _x	5	gr S/100 scf fuel	Rule 4320, section 5.4.1	0.0119	10.00	1.83

Proposed Alon Bakersfield Refinery Crude Flexibility Project

Appendix F: Permitted Source Emissions

S-33-441-0, -442-0 & -443 New Boiler Combustion Emissions

PE2 - Criteria Pollutant Emissions

Pollutant	EF	EF Units	EF Source	EF lb/MMBtu	Emissions	
					Pounds/Day	Tons/Year
VOC	5.5	lb/MMscf	AP-42 Chpt. 1.4	0.0054	2.72	0.50
NOx	6	ppmv @ 3% O ₂	BACT	0.0073	3.66	0.67
PM ₁₀	7.6	lb/MMscf	AP-42 Chpt. 1.4	0.0075	3.76	0.69
PM _{2.5}	7.6	lb/MMscf	Same as PM ₁₀	0.0075	3.76	0.69
CO	25	ppmv @ 3% O ₂	BACT	0.0185	9.32	1.70
SO _x	5	gr S/100 scf fuel	Rule 4320, section 5.4.1	0.0140	7.06	1.29

Notes:

- Note that natural gas GHG emission factors and HHV have been used to calculate emissions, since these boilers will be operated only on natural gas.
- SO_x EF (lb/MMBtu) = [Total S in fuel (g/100 scf)] / [100] / [7000 gr/lb] x [64 lb SO₂/lb-mol] / [32 lb S/lb-mol] [HHV (Btu/scf)] x [1,000,000 BTU/MMBTU]
- NO_x EF (lb/MMBtu) = [NO_x ppmv] / (1,000,000) / (379 dscf/lb-mol) x (46.01 lb NO_x/lb-mol) x 8578 dscf/MMBtu x 20.95/(20.95-3.0)
- CO EF (lb/MMBtu) = [CO ppmv] / (1,000,000) / (379 dscf/lb-mol) x (28.01 lb CO/lb-mol) x 8578 dscf/MMBtu x 20.95/(20.95-3.0)
- Per footnotes to AP-42 tables 1.4-2 and 1.4-3, VOC, PM₁₀, PM_{2.5}, and AP-42 toxic emission factors converted from lb/MMscf to lb/MMBtu by dividing by 1020.
- Input parameters and operational assumptions:

Natural gas HHV	1020	Btu/scf	
F-factor @ 60 °F	857s	dscf/MMBtu	
Heat Capacity	21	MMBtu/hr	(Based on rated capacity of 500 hp converted to MMBTU/hr)
Max annual op hrs	8760	hr/yr	
Max daily op hrs	24	hr/day	

Increase in Fugitive Component Counts, by Unit

Project Component Counts + 20% Buffer

Component Type	Service	S-33-11 Unit 0	S-33-12 Unit 9	S-33-8 Unit 10	Unit 10 - Flash Tower	S-33-9 Unit 11	S-33-10 Unit 12	S-33-13 Unit 14	S-33-66 Unit 21	S-33-62 Unit 26	S-33-349 Unit 27
flanges	V	0	0	5	22	0	9	322	0	0	80
	LL	22	5	46	0	0	47	59	64	35	215
	HL	0	0	102	160	9	0	70	0	15	0
valve	V	0	0	4	5	0	0	267	0	0	96
	LL	21	5	45	0	0	80	50	57	45	272
	HL	0	0	184	154	10	0	97	0	5	0
connector	V	0	0	3	41	0	0	140	0	0	137
	LL	12	5	34	0	0	46	30	50	33	502
	HL	0	0	142	259	9	0	62	0	5	0
compressor seal	V	0	0	0	0	0	0	2	0	0	0
pump seal	LL	0	0	2	0	0	0	0	0	0	0
	HL	0	0	0	0	0	0	4	0	0	0
other	V	0	0	0	0	0	0	0	0	0	0
	LL	0	0	0	0	0	0	0	0	0	0
	HL	0	0	0	0	0	0	0	0	0	0
pressure relief device	V	0	0	0	0	0	0	0	0	0	0
	LL	0	0	0	0	0	0	0	0	0	0
	HL	0	0	0	0	0	0	0	0	0	0
drain	LL	0	0	0	0	0	0	0	0	0	0
	HL	0	0	0	0	0	0	0	0	0	0

Project Component Counts + 20% Buffer

Component Type	Service	S-33-444 T10M25	S-33-445 T10M26	S-33-446 T150M01	S-33-447 T150M02	S-33-124 Unit 25	S-33-440 Rail Unloading Rack	S-3303-1 Terminal Lead Rack
flanges	V	66	66	64	64	586	0	0
	LL	20	20	20	20	0	1662	152
	HL	0	0	0	0	0	0	0
valve	V	6	6	0	0	416	0	0
	LL	74	74	75	75	0	979	90
	HL	0	0	0	0	0	0	0
connector	V	976	979	156	156	92	0	0
	LL	5	5	5	5	0	976	159
	HL	0	0	0	0	0	0	0
compressor seal	V	0	0	0	0	4	0	0
pump seal	LL	3	3	3	3	0	19	0
	HL	0	0	0	0	0	0	0
other	V	0	0	0	0	0	0	0
	LL	0	0	0	0	0	54	0
	HL	0	0	0	0	0	0	0
pressure relief device	V	4	4	6	6	0	0	0
	LL	0	0	0	0	0	19	0
	HL	0	0	0	0	0	0	0
drain	LL	0	0	0	0	0	0	0
	HL	0	0	0	0	0	0	0

Notes:

1. Component count increases include preliminary project estimates plus 20%, except for compressor seals.

PE1 and PE2 for S-33-70 and S-33-372 combined (PTO S-33-70 will be deleted)

Combined Rack Emissions - 2008

Component Type	Service Type	Total Count	Total Emissions lb/yr	lb/comp/yr	
CONNECTOR	GAS / VAPOR	232	123.845	0.53	
CONNECTOR	LIGHT LIQUID	183	258.432	1.41	
FLANGED CONNECTION	GAS / VAPOR	11	4.414	0.40	
FLANGED CONNECTION	LIGHT LIQUID	51	63.957	1.25	
FLANGES	GAS / VAPOR	26	10.286	0.40	
FLANGES	LIGHT LIQUID	23	31.802	1.38	
OTHER	GAS / VAPOR	4	2.593	0.65	
OTHER	LIGHT LIQUID	4	11.317	2.83	
PUMP	LIGHT LIQUID	1	16.128	16.13	
PRESSURE RELIEF DEVICE	GAS / VAPOR	2	1.100	0.55	
PRESSURE RELIEF DEVICE	LIGHT LIQUID	2	0.967	0.48	
VALVE	GAS / VAPOR	33	24.985	0.76	
VALVE	LIGHT LIQUID	42	265.540	6.32	
Total			815.367	lb/yr	2008 annual
Daily avg			2.23	lb/day	2008 daily avg
DEL			4.5	lb/day	2008 daily avg

Proposed Alon Bakersfield Refinery Crude Flexibility Project
Appendix F: Permitted Source Emissions

PE2 Summary of VOC Emissions from New Tanks

Tank ID	S-33-444-0 T10M25	S-33-445-0 T10M26	S-33-446-0 T150M01	S-33-447-0 T150M02
Capacity (bbl):	10,000	10,000	250,000	250,000
Stored Material:	Light Crude	Light Crude	Light Crude	Light Crude
Emissions Basis:	Fugitive HC	Fugitive HC	TANKS + Fugitive HC	TANKS + Fugitive HC
Control:	VRS	VRS	IFR	IFR

Annual Emissions					
Annual Throughput:	bbl/yr	27,375,000	27,375,000	27,375,000	27,375,000
Fugitive VOC	lb/yr	461.47	461.47	247.94	247.94
TANKS VOC	lb/yr	-	-	7,245.52	7,245.52
VOC	VOC, TPY	0.23	0.23	3.75	3.75

Max Daily Emissions					
Max Daily Throughput:	gal/day	4,725,000	4,725,000	4,725,000	4,725,000
	bbl/day	112,500	112,500	112,500	112,500
Fugitive VOC	lb/day	1.26	1.26	0.68	0.68
TANKS VOC	lb/day	-	-	29.10	29.10
VOC	VOC, lb/day	1.26	1.26	29.78	29.78

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Identification

User Identification: T150M01 Domed - Max Day
 City: Bakersfield
 State: California
 Company: Alon USA
 Type of Tank: Domed External Floating Roof Tank
 Description: New Crude Tank - Domed EFR

Tank Dimensions

Diameter (ft): 174.00
 Volume (gallons): 10,500,000.00
 Turnovers: 164.25

Paint Characteristics

Internal Shell Condition: Light Rust
 Shell Color/Shade: White/White
 Shell Condition: Good

Roof Characteristics

Type: Pontoon
 Fitting Category: Detail

Tank Construction and Rim-Seal System

Construction: Welded
 Primary Seal: Mechanical Shoe
 Secondary Seal: Rim-mounted

Deck Fitting/Status

	Quantity
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1
Automatic Gauge Float Well/Bolted Cover, Gasketed	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2
Unslotted Guide-Pole Well/Gasketed Sliding Cover, w. Sleeve	1
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Sock	27
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Sock	49
Rim Vant (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1

Metrological Data used in Emissions Calculations: Bakersfield, California (Avg Atmospheric Pressure = 14.47 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

T150M01 Domed - Max Day - Domed External/Floating Roof Tank
Bakersfield, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
CFP Light Crude	Jan	58.62	54.46	62.76	65.42	6.2992	N/A	N/A	70.0000			207.00	Option 4: RVP=9
CFP Light Crude	Feb	61.49	56.39	66.58	65.42	6.8134	N/A	N/A	70.0000			207.00	Option 4: RVP=9
CFP Light Crude	Mar	63.85	57.94	69.77	65.42	6.8818	N/A	N/A	70.0000			207.00	Option 4: RVP=9
CFP Light Crude	Apr	66.98	60.01	73.95	65.42	7.2493	N/A	N/A	70.0000			207.00	Option 4: RVP=9
CFP Light Crude	May	71.00	63.30	76.70	65.42	7.7439	N/A	N/A	70.0000			207.00	Option 4: RVP=9
CFP Light Crude	Jun	74.47	66.32	82.83	65.42	8.1924	N/A	N/A	70.0000			207.00	Option 4: RVP=9
CFP Light Crude	Jul	77.01	68.80	85.22	65.42	8.5322	N/A	N/A	70.0000			207.00	Option 4: RVP=9
CFP Light Crude	Aug	76.03	68.25	83.81	65.42	8.3995	N/A	N/A	70.0000			207.00	Option 4: RVP=9
CFP Light Crude	Sep	72.96	65.93	79.98	65.42	7.9641	N/A	N/A	70.0000			207.00	Option 4: RVP=9
CFP Light Crude	Oct	68.33	62.00	74.66	65.42	7.4125	N/A	N/A	70.0000			207.00	Option 4: RVP=9
CFP Light Crude	Nov	62.38	57.33	67.44	65.42	6.7143	N/A	N/A	70.0000			207.00	Option 4: RVP=9
CFP Light Crude	Dec	56.39	54.32	62.46	65.42	6.2739	N/A	N/A	70.0000			207.00	Option 4: RVP=9

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

T150M01 Domed - Max Day - Domed External Floating Roof Tank
Bakersfield, California

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Rim Seal Losses (lb):	34,5672	33,9035	38,9684	41,9092	48,0878	50,1257	53,3612	52,0783	48,3095	43,2578	37,6721	34,3824
Seal Factor A (lb-mole/ft-yr):	9.6000	0.6000	0.6000	9.6009	9.6000	9.6000	9.6000	9.6000	0.6000	0.6000	0.6000	0.6000
Seal Factor B (lb-mole/ft-yr (mph) ^{0.75}):	9.4000	9.4000	9.4000	0.4000	9.4000	9.4900	9.4000	9.4000	0.4000	0.4000	0.4000	9.4000
Average Wind Speed (mph):	0.0000	0.0000	0.0000	9.0000	9.0000	9.0000	9.0000	9.0000	0.0000	0.0000	0.0000	9.0000
Seal-related Wind Speed Exponent:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Value of Vapor Pressure Function:	0.1419	0.1515	0.1600	0.1720	0.1892	0.2058	0.2191	0.2138	0.1983	0.1776	0.1546	0.1411
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	6.2992	6.6134	6.8819	7.2493	7.7439	9.1924	9.5322	9.3995	7.9941	7.4125	6.7143	9.2739
Tank Diameter (ft):	174.0000	174.0000	174.0000	174.0000	174.0000	174.0000	174.0000	174.0000	174.0000	174.0000	174.0000	174.0000
Vapor Molecular Weight (lb/lb-mole):	79.0000	79.0000	79.0000	79.0000	79.0000	79.0000	79.0000	79.0000	79.0000	79.0000	79.0000	79.0000
Product Factor:	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000
Withdrawal Losses (lb):	808,3018	729,2724	808,3018	780,2919	808,3919	789,2919	808,3919	806,3916	789,2919	808,3019	790,2919	809,3018
Net Throughput (gal/me.):	148,475,000.0000	132,300,000.0000	146,475,000.0000	141,750,000.0000	148,475,000.0000	141,750,000.0000	148,475,000.0000	148,475,000.0000	141,750,000.0000	146,475,000.0000	141,750,000.0000	146,475,000.0000
Shell Clingage Factor (bbbl/1000 sqft):	0.0060	0.0060	0.0060	0.0060	0.0060	0.0069	0.0060	0.0060	0.0069	0.0060	0.0060	0.0060
Average Organic Liquid Density (lb/gal):	7.1100	7.1100	7.1199	7.1100	7.1100	7.1100	7.1100	7.1100	7.1109	7.1100	7.1100	7.1100
Tank Diameter (ft):	174.0000	174.0000	174.0000	174.0000	174.9900	174.0000	174.0000	174.0000	174.9900	174.0000	174.0000	174.0000
Roof Fitting Losses (lb):	27,4783	29,3354	30,9789	33,3138	38,6381	39,8481	42,4181	41,3983	39,4023	34,3868	29,9464	27,3314
Value of Vapor Pressure Function:	0.1419	0.1515	0.1600	0.1729	0.1892	0.2058	0.2191	0.2138	0.1983	0.1776	0.1549	0.1411
Vapor Molecular Weight (lb/lb-mole):	79.0000	79.0000	79.0000	79.0000	79.0000	79.0000	79.0000	79.0000	79.0000	79.0000	79.0000	79.0000
Product Factor:	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000
Tot. Roof Fitting Loss Fact. (lb-mole/yr):	82,9900	82,9900	82,9900	82,9900	82,9900	82,9900	82,9999	82,9900	82,9900	82,9900	82,9900	82,9900
Average Wind Speed (mph):	0.0000	9.0000	0.0000	9.0000	9.0000	9.0000	9.0000	9.0000	0.0000	9.0000	9.0000	0.0000
Total Losses (lb):	868,3479	794,5113	876,2468	855,5139	888,0252	879,2636	902,0809	899,7791	867,0036	883,9460	847,9103	868,0154

Roof Fitting/Status	Quantity	Roof Fitting Loss Factors		m	Losses (lb)
		KFa (lb-mole/yr)	KFb (lb-mole/yr mph ^{0.75})		
Access Hatch (24-in. Diam./Bolted Cover, Gasketed)	1	1.69	9.00	9.00	7.9396
Automatic Gauge Float Well/Bolted Cover, Gasketed	1	2.80	0.00	0.00	13.8842
Vacuum Breaker (10-in. Diam./Weighted Mech. Actuation, Gask.	2	8.29	1.29	0.94	61.5316
Unslotted Guide-Pole Well/Gasketed Sliding Cover, w. Sleeve	1	8.60	12.00	0.81	42.6751
Gauge-Hatch/Sample Well (8-in. Diam./Weighted Mech. Actuation, Gask.	1	0.47	0.02	0.97	2.3322
Roof Leg (3-in. Diameter)/Adjustable, Pantoon Area, Sock	27	1.29	9.14	9.55	160.7761
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Sock	49	0.49	0.18	0.14	119.1430
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1	0.71	9.19	1.00	3.5232

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

T150M01 Domed - Max Day - Domed External Floating Roof Tank
Bakersfield, California

Components	Losses(lbs)				Total Emissions
	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	
CFP Light Crude	517.62	9,493.55	411.47	0.00	10,422.64

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Identification

User Identification: T150M01 Domed
 City: Bakersfield
 State: California
 Company: Alon USA
 Type of Tank: Domed External Floating Roof Tank
 Description: New Crude Tank - Domed EFR

Tank Dimensions

Diameter (ft): 174.00
 Volume (gallons): 10,500,000.00
 Turnovers: 109.50

Paint Characteristics

Internal Shell Condition: Light Rust
 Shell Color/Shade: White/White
 Shell Condition: Good

Roof Characteristics

Type: Pontoon
 Fitting Category: Datall

Tank Construction and Rim-Seal System

Construction: Welded
 Primary Seal: Mechanical Shoe
 Secondary Seal: Rim-mounted

Deck Fitting/Status

	Quantity
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1
Automatic Gauge Float Well/Bolted Cover, Gasketed	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2
Unslotted Guide-Pole Well/Gasketed Sliding Cover, w. Sleeve	1
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Sock	27
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Sock	49
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1

Meteorological Data used in Emissions Calculations: Bakersfield, California (Avg Atmospheric Pressure = 14.47 psia)

TANKS:4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

T150M01 Domed:- Domed External Floating Roof Tank
Bakersfield, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
CFP Light Crude	All	67.63	61.25	74.00	65.42	7.3274	N/A	N/A	70.0000			207.00	Option 4: RVP=9

TANKS 4.0:9d
Emissions Report - Detail!Format
Detail Calculations (AP-42)

T150M01 Domed - Domed External Floating Roof Tank
Bakersfield, California

Annual Emission Calculations	
Rim Seal Losses (lb):	510.5997
Seal Factor A (lb-mole/ft-yr):	0.6000
Seal Factor B (lb-mole/ft-yr (mph) ^{1.75}):	0.4000
Average Wind Speed (mph):	0.0000
Seal-related Wind Speed Exponent:	1.0000
Value of Vapor Pressure Function:	0.1747
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	7.3274
Tank Diameter (ft):	174.0000
Vapor Molecular Weight (lb/lb-mole):	70.0000
Product Factor:	0.4000
Withdrawal Losses (lb):	6,329.0339
Annual Net Throughput (gal/yr.):	1,149,750,000.0000
Shell Clingage Factor (bb/1000 sqft):	0.0080
Average Organic Liquid Density (lb/gal):	7.1100
Tank Diameter (ft):	174.0000
Roof Fitting Losses (lb):	405.6876
Value of Vapor Pressure Function:	0.1747
Vapor Molecular Weight (lb/lb-mole):	70.0000
Product Factor:	0.4000
Tot. Roof Fitting Loss Fact. (lb-mole/yr):	82.9900
Average Wind Speed (mph):	0.0000
Total Losses (lb):	7,245.5212

Roof Fitting/Status	Quantity	KFe(lb-mole/yr)	Roof Fitting Loss Factors		Losses(lb)
			KFb(lb-mole/yr mph ^{1.75})	m	
Access Hatch (24-in. Diam.)/Boiled Cover, Gasketed	1	1.00	0.00	0.00	7.8253
Automatic Gauge Float Well/Boiled Cover, Gasketed	1	2.80	0.00	0.00	13.6942
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2	8.20	1.20	0.94	60.6459
Unslotted Guide-Pole Well/Gasketed Sliding Cover, w. Steeve	1	8.80	12.00	0.81	42.0809
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1	0.47	9.02	0.97	2.2997
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Sock	27	1.20	0.14	0.85	166.4620
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Sock	49	0.49	0.18	0.14	117.4291
Rim Vent (8-in. Diameter)/Weighted Mech. Actuation, Gask.	1	0.71	0.10	1.00	3.4725

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: Annual

T150M01 Domed - Domed External Floating Roof Tank
Bakersfield, California

Components	Losses(lbs)				Total Emissions
	Rim Seal Loss	Withdrawal Loss	Deck Fitting Loss	Deck Seam Loss	
CFP Light Crude	510.80	6,328.03	405.89	0.00	7,246.52

Proposed Alon Bakersfield Refinery Crude Flexibility Project

On-site Rail Transportation Emissions.

Annual Emissions Change.

ATC S-33-440-0, New Crude Oil Rail Car Unloading Facility - Emissions from Cargo Carriers

Scenario	Annual Bhp-Hours	Emissions (Tons/Year)					
		ROG	NOx	PM ₁₀	PM _{2.5}	CO	SO ₂
Baseline Emissions:	--	--	--	--	--	--	--
Post-Project Emissions:	763,427	0.19	5.00	0.13	0.12	1.03	0.00
Emissions Change: Post-Project - Baseline		0.19	5.00	0.13	0.12	1.03	0.00

Average Daily Emissions Change.

Scenario	Average Daily Bhp-Hours	Emissions (Pounds/Day)					
		ROG	NOx	PM ₁₀	PM _{2.5}	CO	SO ₂
Baseline Emissions:	--	--	--	--	--	--	--
Post-Project Emissions:	2,092	1.01	27.40	0.72	0.66	5.67	0.02
Emissions Change: Post-Project - Baseline		1.01	27.40	0.72	0.66	5.67	0.02

Line Haul Locomotive Emission Factors (grams/brake horsepower-hour).

Year	Emission Factors					
	TOG	ROG	NOx	PM ₁₀	PM _{2.5}	CO
2015 Emission Factors (Proposed Project)	0.27	0.23	6.20	0.16	0.15	1.28

Line Haul Locomotive Emission Factors (grams/gallon).

Year	Emission Factors					
	HC	NOx	PM ₁₀	CO ₂	CH ₄	N ₂ O
2015 Emission Factors (Proposed Project)	5.7	129	3.4	10,210	0.8	0.26

Notes:

1. Rail transportation (locomotive) emission calculations are based on the following:
 - a. Annual rail transportation (locomotive) brake horsepower-hours (Bhp-Hours) for baseline and post-project are based on *Draft Environmental Impact Report: Alon Bakersfield Refinery Crude Flexibility Project* Appendix B (Air Quality and Greenhouse Gases Technical Report) Table C-12 (Rail Transportation Operational Estimates Process Rate Data - Round Trips).
 - b. Average daily rail transportation Bhp-Hours for the baseline and the proposed project assume operation 365 days per year.
2. Criteria pollutant emissions (ROG, NOx, PM₁₀, PM_{2.5}, CO, and SO₂) occurring on-site at the Alon Bakersfield Refinery.
3. Source for HC, NOx, and PM₁₀ emission factors in grams/gallon: *Emission Factors for Locomotives* (Document No. EPA-420-F-09-025), U.S. Environmental Protection Agency, April 2009, Tables 5 to 7 (expected fleet average emission factors by calendar year for large line-haul locomotives). These factors are converted to grams/brake horsepower-hour (grams/bhp-hr) by dividing by the brake specific fuel consumption factor of 20.8 bhp-hr/gallon (source: *Emission Factors for Locomotives*). TOG is assumed to equal HC.
4. The ROG emission factor utilizes the California Air Resources Board's ROG weight fraction of 0.84 X TOG (profile no. 818) for compression-ignition diesel-fired internal combustion engines, available at arb.ca.gov/ei/speciate/interoptvv10001.php (accessed February 11, 2013).

Proposed Alon Bakersfield Refinery Crude Flexibility Project

On-site Rail Transportation Emissions.

5. The $PM_{2.5}$ emission factor utilizes the California Air Resources Board's $PM_{2.5}$ weight fraction of 0.92 X PM and PM_{10} weight fraction of 1.00 X PM (profile no. 425) for diesel vehicle exhaust, available at arb.ca.gov/ei/speciate/interoptv10001.php (accessed February 11, 2013).
6. The CO emission factor of 1.28 grams/bhp-hr is from *Emission Factors for Locomotives*, Table 1 (Line-Haul Emission Factors, g/bhp-hr).
7. The SOx (as SO₂) emission factor is based on an assumed sulfur content of 15 parts per million diesel as follows: (15 lbs S/million lbs diesel) X (7.05 lb/gal diesel) X (1 gal diesel/20.8 bhp-hr) X (64 lb-mol SO₂/32 lb-mol S) X (453.59 g/lb) = 0.005 g SOx/bhp-hr. This assumes that California on-highway diesel fuel is used by locomotives. Source for locomotive brake specific fuel consumption factor of 20.8 bhp-hr/gallon: *Emission Factors for Locomotives*, Table 3 (Conversion Factors bhp-hr/gal), large line-haul and passenger locomotives.
8. Sources for CO₂, CH₄, and N₂O emission factors: The Climate Registry, The Climate Registry's 2013 Default Emission Factors, April 2, 2013, Table 13.1 (US Default CO₂ Emission Factors for Transport Fuels) and Table 13.7 (US Default CH₄ and N₂O Emission Factors for Non-Highway Vehicles). Factors (in kg/gallon or g/gallon) are converted to g/bhp-hr by using the brake specific fuel consumption factor of 20.8 bhp-hr/gallon for large line-haul and passenger locomotives (source: *Emission Factors for Locomotives*).
9. Conversion factors:
 - 20.8 bhp-hr/gallon
 - 453.59 grams/pound
 - 2,000 pounds/ton
 - 1,000,000 grams/metric ton

APPENDIX H
Quarterly Net Emissions Change (QNEC)

Quarterly Net Emissions Change (QNEC)

The Quarterly Net Emissions Change is used to complete the emission profile screen for the District's PAS database. The QNEC shall be calculated as follows:

QNEC = (PE2 - PE1)/4, where:

- QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qr.
- PE2 = Post Project Potential to Emit for each emissions unit, lb/qr.
- PE1 = Pre-Project Potential to Emit for each emissions unit, lb/qr.

From the Calculations section above:

Permit Unit	PE2 (lb/year)				
	NO _x	SO _x	PM ₁₀	CO	VOC
S-33-8-26	0	0	0	0	3018
S-33-9-18	0	0	0	0	518
S-33-10-8	0	0	0	0	1998
S-33-11-13	0	0	0	0	6899
S-33-12-12	0	0	0	0	9609
S-33-13-25	0	0	0	0	5030
S-33-49-8	0	0	0	0	0
S-33-52-18	4791	1564	979	19455	278709
S-33-56-30	7666	3129	1958	38890	51274
S-33-63-13	0	0	0	0	0
S-33-112-5	0	0	0	0	0
S-33-124-10	0	0	0	0	138418
S-33-138-7	0	0	0	0	0
S-33-139-5	0	0	0	0	0
S-33-349-18	8943	3650	2284	45371	36208
S-33-372-4	0	0	0	0	1653
S-33-440-0	10000	0	260	2060	3064+380
S-33-441-0	1342	2576	1371	3402	992
S-33-442-0	1342	2576	1371	3402	992
S-33-443-0	1342	2576	1371	3402	992
S-33-444-0	0	0	0	0	461
S-33-445-0	0	0	0	0	461
S-33-446-0	0	0	0	0	7493
S-33-447-0	0	0	0	0	7493
S-3303-1-6	0	0	0	0	19409

PE1 (lb/year)					
Permit Unit	NO _x	SO _x	PM ₁₀	CO	VOC
S-33-8-25	0	0	0	0	2276
S-33-9-17	0	0	0	0	501
S-33-10-7	0	0	0	0	1900
S-33-11-12	0	0	0	0	6862
S-33-12-11	0	0	0	0	9600
S-33-13-24	0	0	0	0	4208
S-33-49-6	0	0	0	0	0
S-33-52-17	4791	1564	979	38890	278620
S-33-56-28	9582	3129	1958	77779	51167
S-33-63-12	0	0	0	0	0
S-33-112-4	0	0	0	0	0
S-33-124-9	0	0	0	0	137605
S-33-138-6	0	0	0	0	0
S-33-139-4	0	0	0	0	0
S-33-349-16	11179	3650	2284	51043	35562
S-33-372-3	0	0	0	0	1,643
S-33-440-0	0	0	0	0	0
S-33-441-0	0	0	0	0	0
S-33-442-0	0	0	0	0	0
S-33-443-0	0	0	0	0	0
S-33-444-0	0	0	0	0	0
S-33-445-0	0	0	0	0	0
S-33-446-0	0	0	0	0	0
S-33-447-0	0	0	0	0	0
S-3303-1-5	0	0	0	0	19199

QNEC (lb/qtr.)					
Permit Unit	NO _x	SO _x	PM ₁₀	CO	VOC
S-33-8-26	0	0	0	0	186
S-33-9-18	0	0	0	0	4
S-33-10-8	0	0	0	0	24
S-33-11-13	0	0	0	0	9
S-33-12-12	0	0	0	0	2
S-33-13-25	0	0	0	0	205
S-33-49-8	0	0	0	0	0
S-33-52-18	0	0	0	-4861	22
S-33-56-30	-479	0	0	-9722	27
S-33-63-13	0	0	0	0	0
S-33-112-5	0	0	0	0	0
S-33-124-10	0	0	0	0	203
S-33-138-7	0	0	0	0	0
S-33-139-5	0	0	0	0	0
S-33-349-18	-559	0	0	-1418	162
S-33-372-4	0	0	0	0	0
S-33-440-0	2500	0	65	515	861
S-33-441-0	335	644	343	851	248
S-33-442-0	335	644	343	851	248
S-33-443-0	335	644	343	851	248
S-33-444-0	0	0	0	0	115
S-33-445-0	0	0	0	0	115
S-33-446-0	0	0	0	0	1873
S-33-447-0	0	0	0	0	1873
S-3303-1-6	0	0	0	0	52

APPENDIX I
Compliance Certification

**San Joaquin Valley
Unified Air Pollution Control District**

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

- SIGNIFICANT PERMIT MODIFICATION ADMINISTRATIVE AMENDMENT
 MINOR PERMIT MODIFICATION

COMPANY NAME: Alon Bakersfield Property, Inc.	FACILITY ID: S - 33/3303
1. Type of Organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name: Alon Bakersfield Property, Inc.	
3. Agent to the Owner: Helen Ordway, Environmental Manager	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):

- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the foregoing is correct and true:

Helen Ordway
Signature of Responsible Official

10-25-13
Date

Helen Ordway

Name of Responsible Official (please print)

Environmental Manager

Title of Responsible Official (please print)



a subsidiary of
ALON USA

14700 Downey Avenue
P.O. Box 1418
Paramount, CA 90723-1418
(562) 531-2080

VIA CERTIFIED MAIL WITH RETURN RECEIPT

November 5, 2013

Robert C. Rinaldi
Air Quality Engineer
San Joaquin Valley Air Pollution Control District
34946 Flyover Court, Bakersfield, CA 93308-9725

RECEIVED

NOV 05 2013

SJVAPCD
Southern Region

**RE: Alon Bakersfield Refinery (Facility No. S-33) Crude Flexibility Project ATC
Application Compliance Certification**

Dear Mr. Rinaldi,

Alon hereby provides this letter as a supplemental documentation required for the ATC permit application for the Crude Flexibility Project.

In accordance with SJVAPCD Rule 2201, Section 4.15, I certified under penalty of law and based on information and belief formed after reasonable inquiry that all major stationary sources owned or operated by Alon in California are in compliance or on a schedule for compliance with all applicable emission limitations and standards pursuant to their individual facility permits.

Please contact me if you have any questions or concerns.

Sincerely,

Glenn Clausen
Vice President of West Coast Refining

Cc: Mark Denis, Alon Bakersfield Refinery
Helen Ordway, Alon Bakersfield Refinery
Steve Piatek, Paramount Petroleum Corporation

RECEIVED

FEB 18 2014

SJVAPCD
Southern Region

February 6, 2014

Mr. Leonard Scandura
Permit Services Manager
San Joaquin Valley Unified
Air Pollution Control District
34946 Flyover Ct.
Bakersfield, CA 93308

**Subject: Federal Major Modification Compliance Certification – S-33
ATC Application for Tier 3 I.C. Engine Powering a Compressor**

Dear Mr. Scandura:

I hereby certify that all major Stationary Sources owned or operated by such person (or by any entity controlling, controlled by, or under common control with such person) in California, which are subject to emission limitations, are in compliance or on a schedule for compliance with all applicable emission limitations and standards.



Signature

Environmental Manager
Title

APPENDIX J
PSD Calculations

PSD Total Emissions for three new boilers S-33-441-0, '-442-0 and '-443-0:

NO _x	SO _x	PM ₁₀	CO	VOC	
1342	2576	1371	3,402	992	
1342	2576	1371	3,402	992	
1342	2576	1371	3,402	992	
4026	7728	4113	10,205	2976	Total lb/yr.
2.013	3.864	2.0565	5.103	1.488	Total t/yr.

Emissions form locomotive cargo carriers S-33-440-0:

5.00	0.00	0.13	1.03	0.19	t/yr.
------	------	------	------	------	-------

7.01	3.86	2.19	6.13	1.68	Grand total t/yr.
------	------	------	------	------	-------------------

APPENDIX K
Public Comments



November 19, 2014

Via Email

Arnaud Marjollet
Director of Permit Services
San Joaquin Valley APCD
34946 Flyover Court
Bakersfield, CA 93308

Dear Mr. Marjollet:

I am writing to submit comments on the San Joaquin Valley Air Pollution Control District's ("District") proposed Authority to Construct for the Alon Bakersfield Crude Flexibility Project ("Project") proposed by Paramount Petroleum Corporation and its parent Alon U.S.A. Energy Inc. (collectively, "Alon"). These comments are submitted on behalf of Association of Irrigated Residents, Center for Biological Diversity, and Sierra Club. The organizations represent thousands of members and supporters in California and the San Joaquin Valley ("Valley") who are deeply concerned about skyrocketing crude-by-rail imports from the mid-continent into the state. As a result of this project, millions of barrels of volatile Bakken crude oils will be hauled through California's most sensitive areas and treacherous passages, ultimately ending up in our most pollution-burdened communities, including the Valley, for intensive refining.

The Project entails a five-fold increase in the Alon Bakersfield Refinery's ("Refinery") capacity to import crude oil from 40 tank cars per day to 208 tank cars per day, or up to 63.1 million barrels of crude per year (over 173,000 barrels per day). This influx of cheap, mid-continent crudes, including Bakken crude from North Dakota, will allow the shuttered Refinery to reopen and run at full capacity, processing 70,000 barrels of crude oil per day. Restarting the Refinery – which has been mostly idle since 2008 – will significantly increase harmful air pollution that will only exacerbate the poor air quality and respiratory illnesses that plague San Joaquin Valley communities already unfairly burdened with industrial pollution. Further, the massive ramp-up in crude imports will significantly increase greenhouse gas emissions and the risk of catastrophic accidents and oil spills along the rail transport route.

Unfortunately, the District's preliminary decision on the Authority to Construct does not meet New Source Review requirements under District Rule 2201. It fails to consider and apply Best Available Control Technology ("BACT") to the Project's new emissions units or those units undergoing major modifications, including new and modified floating roof tanks, new boilers, and new pumps and compressors. These units are expected to emit significant levels of oxides of nitrogen ("NOx") and volatile organic compounds ("VOC"), which result in the formation of ozone, for which the Valley is already in "extreme" nonattainment. Given existing unhealthy air quality that already exacts an enormous toll on Valley residents in the form of chronic respiratory illnesses, emergency room visits, premature death, missed school days, medical bills,

lost wages, and reduced worker productivity, the application of BACT to these new and modified units is imperative.

The emissions offsets analysis for the proposed Authority to Construct must also be revised to comply with Rule 2201. The analysis fails to properly calculate the emissions increase that must be offset because it erroneously relies on a 2008 baseline that does not represent normal non-operational conditions at the Refinery. In addition, it severely underestimates the Project's VOC emissions, by relying on flawed assumptions about the crude oils that will be stored and processed at the Refinery. The analysis also improperly exempts from emissions offset requirements existing heaters that will be retrofitted and relies on invalid emissions reduction credits ("ERCs") for all other emissions increases. The failure to properly offset the Project's emissions increases will only result in further deterioration of the Valley's air and put attainment of air quality standards further out of reach.

In sum, the District must correct the Project's BACT and emissions offset analyses and revise the proposed Authority to Construct in accordance with our comments below.

I. The Authority to Construct Fails to Apply BACT.

The proposed Authority to Construct fails to apply BACT to new floating roof tanks, boilers, and compressors and pumps, despite the District's determination that BACT is triggered for each of these units. BACT is "the most stringent emission limitation or control technique of the following": "[a]chieved in practice for such category and class of source;" "[c]ontained in any State Implementation Plan approved by the Environmental Protection Agency for such category and class of source"; "[c]ontained in an applicable federal New Source Performance Standard"; or "[a]ny other emission limitation or control technique, including process and equipment changes of basic or control equipment, found by the APCO to be cost effective and technologically feasible for such class or category of sources or for a specific source." Rule 2201, section 3.10. Generally, BACT is required for new or modified emissions units that result in emissions exceeding certain thresholds. *See generally* Rule 2201, section 4.0.

A. Stricter Volatile Organic Compound Control Systems and Geodesic Domes Must Be Applied to the Floating Roof Tanks.

The Authority to Construct does not apply BACT on floating roof tanks that store volatile substances, such as Bakken crude. The new tanks' VOC emissions will be subject to "95% control of VOC emissions, through use of primary metal shoe seal with secondary wiper, or equivalent." Authority to Construct Application Review, Crude Oil Flexibility Project ("Application Review"), p. 38. The Bay Area Air Quality Management District ("BAAQMD"), however, has determined that a "[v]apor recovery system w/ an overall system efficiency > 98%" is "technologically feasible" and "cost effective."¹ (emphasis added). The District must revise the

¹ The BAAQMD BACT Guidelines are available at <http://hank.baaqmd.gov/pmt/bactworkbook/>. Relevant portions are attached as Exhibit A.

top-down BACT analysis taking into account the availability of control systems that are 98%-efficient.

The Authority to Construct also fails to require geodesic domes to reduce VOC emissions from floating roof tanks. These domes on floating roof tanks are feasible, satisfy best available control technology, and are widely used. The BAAQMD BACT Guidelines specify that "a dome is required for tanks that meet all of the following: 1) capacity greater than or equal to 19,815 gallons [approximately 629 barrels] 2) located at a facility with greater than 20 tpy VOC emissions since the year 2000 and 3) storing a material with a vapor pressure equal to or greater than 3 psia (except for crude oil tanks that are permitted to contain more than 97% by volume crude oil)." Ex. A. The 250,000-barrel external floating roof tanks are 397 times the volume of the BAAQMD threshold and will certainly exceed a vapor pressure of 3psia when storing light crude oils, such as Bakken, Eagle Ford, and Permian Basin crude oils.

Over 10,000 aluminum domes have been installed on petrochemical storage tanks in the United States.² For example, at the ExxonMobil Torrance Refinery, the refinery

completed the process of covering all floating roof tanks with geodesic domes to reduce volatile organic compound (VOCs) emissions from facility storage tanks in 2008. By installing domes on our storage tanks, we've reduced our VOC emissions from these tanks by 80 percent. These domes, installed on tanks that are used to store gasoline and other similar petroleum-derived materials, help reduce VOC emissions by blocking much of the wind that constantly flows across the tank roofs, thus decreasing evaporation from these tanks.³

A similar project to increase crude storage capacity, recently proposed at the Phillips 66 Los Angeles Carson Refinery, required external floating roof tanks with geodesic domes to store crude oil with an RVP of 11.⁴ The Negative Declaration for this project assumed these tanks would store crude oil with a TVP <11 psi.⁵ The RVP would be even higher. The ConocoPhillips

² M. Dohéy and M. Trinidad, Aluminum Geodesic Dome Roof for Both New and Tank Retrofit Projects, *Materials Forum*, v. 30, 2006, available at: http://www.materialsaustralia.com.au/lib/pdf/Mats.%20Forum%20page%20164_169.pdf (Exhibit B).

³ Torrance Refinery: An Overview of our Environmental and Social Programs, 2010, available at: http://www.exxonmobil.com/NA-English/Files/About_Where_Ref_TorranceReport.pdf (Exhibit C).

⁴ See, e.g., Phillips 66 Los Angeles Refinery Carson Plant – Crude Oil Storage Capacity Project, September 6, 2013, Table 1-1, Draft Negative Declaration, available at <http://www.aqmd.gov/docs/default-source/ceqa/documents/permit-projects/2014/draftnd-p66storage.pdf> (Exhibit D).

⁵ *Ibid.*

Wilmington Refinery added a geodesic dome to an existing oil storage tank to satisfy BACT.⁶ Similarly, Chevron proposed⁷ to use domes on several existing tanks to mitigate VOC emission increases at its Richmond Refinery.⁸ The U.S. Department of Justice CITGO Consent Decree required a geodesic dome on a gasoline storage tank at the Lamont, Texas refinery.⁹ Further, numerous vendors have provided geodesic domes for refinery tanks.¹⁰

These numerous applications of geodesic domes to control VOC emissions from refinery storage tanks satisfy the “achieved in practice” test for BACT. Thus, geodesic domes must be required to satisfy BACT for the new and modified storage tanks under SJVAPCD Rule 2201.

Finally, because VOC emissions have been severely underestimated, *see* section III below, the potential amount of emissions to be reduced by the above VOC-controls is much greater than what the District’s initial emissions estimates might indicate. A revised BACT analysis must rely on corrected VOC-emissions figures to provide an accurate assessment of the cost-effectiveness of these emissions controls.

B. The BACT Analysis for the New Boilers Is Incomplete.

The BACT analysis for the three new boilers is flawed, failing to demonstrate that NOx, carbon monoxide (“CO”), and hydrogen sulfide emissions will be reduced to the extent feasible.

⁶ SCAQMD Letter to G. Rios, December 4, 2009, available at: [http://yosemite.epa.gov/r9/air/epss.nsf/e0c49a10c792e06f8825657e007654a3/e97e6a905737c9bd882576cd0064b56a/\\$FILE/ATTTOA6X.pdf/ID%20800363%20ConocoPhillips%20Wilmington%20-%20EPA%20Cover%20Letter%20-%20-AN%20501727%20501735%20457557.pdf](http://yosemite.epa.gov/r9/air/epss.nsf/e0c49a10c792e06f8825657e007654a3/e97e6a905737c9bd882576cd0064b56a/$FILE/ATTTOA6X.pdf/ID%20800363%20ConocoPhillips%20Wilmington%20-%20EPA%20Cover%20Letter%20-%20-AN%20501727%20501735%20457557.pdf) (Exhibit E).

⁷ City of Richmond, Chevron Refinery Modernization Project, Environmental Impact Report, Volume 1: Draft EIR, March 2014 (Chevron DEIR), available at: <http://chevronmodernization.com/project-documents/>.

⁸ Chevron DEIR, Chapter 4.3, available at: http://chevronmodernization.com/wp-content/uploads/2014/03/4.3_Air-Quality.pdf (Exhibit F).

⁹ CITGO Petroleum Corp. Clean Air Act Settlement, available at: <http://www2.epa.gov/enforcement/citgo-petroleum-corporation-clean-air-act-settlement> (Exhibit G).

¹⁰ See, e.g., Aluminum Geodesic Dome, available at: <http://tankaluminumcover.com/Aluminum-Geodesic-Dome>; Larco Storage Tank Equipments, available at: http://www.larco.fr/aluminum_domes.html; Vacono Dome, available at: http://www.easyfairs.com/uploads/tx_ef/VACONODOME_2014.pdf; Peksay Ltd., available at: http://www.peksay.info/oil_terminals/geodesic_domes.htm; United Industries Group, Inc., available at: <http://www.thomasnet.com/productsearch/item/10039789-13068-1008-1008/united-industries-group-inc/geodesic-aluminum-dome-roofs/> (Exhibit H).

1. *NOx Selective Catalytic Reduction*

With respect to the boilers' NOx emissions, the District's Application Review concludes that 6 ppmv at 3% O2 using low-NOx burners is BACT. The top-down BACT analysis, however, rules out the application of selective catalytic reduction ("SCR") (which would achieve 5 ppmv NOx at 3% O2), because the cost of reducing emissions using this technology does not meet the District's cost-effectiveness threshold of \$24,500 per ton. Application Review, PDF 478-79. The District's calculations show that the cost-effectiveness is only \$58,198 per ton. *Ibid.* These calculations, however, do not explain or justify the underlying assumptions, precluding a meaningful assessment of the cost-effectiveness analysis. For example, the calculations state that an equipment life of 10 years is assumed. But in Alon's original application and BACT analysis for the project, Alon assumed a 20-year equipment life. See Ex. J. Indeed, the "capital recovery factor" $(i[1+i]^n / [1+i]^n - 1)$ used in Alon's analysis is much lower (0.0944) than the one used by the District (0.1627). EPA's Air Pollution Control Cost Manual also provides an example calculation of SCR cost-effectiveness using a 20-year equipment life and 7% interest rate, resulting in a cost recovery factor of 0.0944.¹¹ Using this lower capital recovery factor in the District's calculations results in a much more cost-effective emissions reduction of \$33,757.44 per ton. However, as explained further below, the 7% interest rate is outdated and a 20-year lifetime is not realistic.

In a March 2014 presentation by the South Coast Air Quality Management District ("SCAQMD") concerning the cost-effectiveness of SCR for refineries, the SCAQMD's analysis (using the same levelized cash flow method used by the District) assumed a 4% interest rate and 25-year life of the equipment.¹² These assumptions are more realistic than Alon's or the District's. Alon's financial reports indicate that it is capable of securing capital at an interest rate lower than 4%.¹³ And as explained by refinery expert Dr. Phyllis Fox in comments on a cost-effectiveness analysis of SCR in a similar context, "[f]or these types of analyses, the Office of Management and Budget ("OMB") directs that a real interest rate be used [i.e., adjusted to

¹¹ EPA Pollution Control Cost Manual, Sixth Edition (January 2002), available at http://www.epa.gov/ttn/catc1/dir1/c_allchs.pdf (Exhibit K).

¹² See NOx RECLAIM Working Group Meeting, March 18, 2014, p. 13, available at <http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/regxx/reclaimwgm031814.pdf?sfvrsn=2> (Exhibit L).

¹³ See Alon U.S.A. Energy, Inc., Form 10-K for Fiscal Year 2013, March 2014, PDF 79, 92 available at <http://www.sec.gov/Archives/edgar/data/1325955/000132595514000013/alj-20131231x10k.htm> (Exhibit M); Alon U.S.A. Energy, Inc., Form 10-Q, 9/30/2014, available at <http://quote.morningstar.com/stock-filing/Quarterly-Report/2014/9/30/t.aspx?t=XNYS:ALJ&ft=10-Q&d=acdd8e2f9a21686b6e4d53b46613845b>, p. 10 (noting interest rate swap agreements resulting in average fixed interest rate of 0.25% in 2014; 0.60% in 2015; 1.47% in 2016; 2.35% in 2017; 3.09% in 2018 and 3.28% thereafter); *id.*, p. 16 (noting recent loan agreement at annual rate of LIBOR plus 3.75% margin) (Exhibit N [PDF 18, 30]).

remove the effects of inflation and to reflect the real costs of funds to the borrower]. When the [EPA] Cost Control Manual was developed, the real interest rate was 7%. However, the latest real interest rate for cost-effectiveness analyses published by OMB is 1.9% for a 30-year period.”¹⁴ Thus, even a 4% interest rate is highly conservative.

With respect to the equipment lifetime, ample evidence indicates that SCR typically has a lifetime of 30 years or more. A study of the economic risks from SCR operation at the Detroit Edison Monroe power plant, for example, used 30 years as the anticipated lifetime.¹⁵ Further, in EPA’s response to comments on the approval of a final rule determining that SCR was the “best available retrofit technology” and “most cost-effective” technology for the San Juan Generating Station, a coal-fired power plant in New Mexico, EPA justified a 30-year lifetime of the SCR assumed in its cost-effective analysis:

The lifetime of an SCR, which is a metal frame packed with catalyst modules, is equal to the lifetime of the boiler, which might easily be over 60 years. *The lifetime of a retrofit SCR is generally set equal to the remaining useful life of the facility.* The record is silent on the remaining useful life of the [San Juan Generating Station] units. Further, USGS studies of the coal reserves upon which the [San Juan Generating Station] relies indicate that the local coal supply is adequate to support a remaining useful life of 30 years. Many utilities routinely specify 30+ year lifetimes in requests for proposal and to evaluate proposals. In fact, an analysis prepared by [Black & Veatch] for another facility assumed a 40 year SCR lifetime. And finally, Sargent & Lundy assumed a design life of 30 years for the nearby Navajo Generating Station which burns a similar coal. We conclude there is nothing in the record to support a 20 year lifetime for the SCR and believe a 30 year lifetime is justified.¹⁶

¹⁴ Fox, Phyllis, Report on Hydrogen Cyanide Emissions From Fluid Catalytic Cracking Units (October 28, 2014), pp. 23-24 (Exhibit O), citing OMB Circular No. A-94, Appendix C, Revised February 7, 2014, available at: <http://www.whitehouse.gov/sites/default/files/omb/memoranda/2014/m-14-05.pdf> (Exhibit P). Dr. Fox’s resume is attached as Exhibit Q.

¹⁵ S.D. Unwin and others, Selective Catalytic Reduction (SCR) System Design and Operations: Quantitative Risk Analysis of Options, Presented at CCPS 17th Annual International Conference: Risk, Reliability, and Security, p. 3, available at: <http://www.unwin-co.com/files%5CSCR-Risk-Paper,CCPS-RRS2002.pdf> (Exhibit R).

¹⁶ “Approval and Promulgation of Implementation Plans; New Mexico; Federal Implementation Plan for Interstate Transport of Pollution Affecting Visibility and Best Available Retrofit Technology Determination; Final Rule,” 76 Fed. Reg. 52388, 52402 (Aug. 22, 2011), available at <http://www.gpo.gov/fdsys/pkg/FR-2011-08-22/pdf/2011-20682.pdf> (Exhibit S).

Here, the expected life of the project is 30 years.¹⁷ It is therefore reasonable to assume that the remaining useful life of the facility and of the SCR equipment is at least 30 years.¹⁸

Using the more realistic assumptions of a 30-year equipment life and a 1.9% real interest rate results in a capital recovery ratio of 0.044 and a cost-effectiveness of \$15,748.11 per ton, which meets the District's cost-effectiveness threshold. Even the more conservative assumptions of a 4% interest rate and 25-year lifetime results in a capital recovery ratio of 0.064 and a cost-effectiveness of \$22,890.68 per ton, which also meets the District's cost-effectiveness threshold. In light of the above evidence showing that the District's cost figures are inflated, the Air District must reevaluate and revise its BACT analysis using these more realistic assumptions.

2. *Low Temperature Oxidation*

Low temperature oxidation ("LTO") has achieved emissions controls comparable to that of SCR, but the District's analysis did not consider this technology in its BACT analysis. For example, a 16.4-MMBtu/hr Cleaver Brooks CB700 fire-tube boiler was permitted in February 1992 at 40 ppm NO_x at 3% O₂. The boiler was subsequently equipped with LTO in October 1996 as a demonstration project. "The LTO system utilizes ozone to oxidize and control various pollutants, including NO_x. The LTO system process includes (1) the recovery of waste heat from the flue gas, (2) the oxidation of NO_x and CO, (3) the absorption of higher nitrogen and sulfur oxides formed in a scrubber solution, and (4) removal of ozone slip."¹⁹

Source tests demonstrated that LTO achieved a NO_x limit of 5 ppm at 3% O₂.²⁰ The SCAQMD's Mobile Source Test Vehicle (MSTV 1) was used to collect and continuously analyze flue gases at the exhaust stack of the LTO system. NO_x and CO concentrations were recorded every minute. The analysis of these data shows that NO_x concentrations

¹⁷ Kern County Draft Environmental Impact Report, Alon Bakersfield Refinery Crude Flexibility Project ("DEIR") (May 2014), pp. 4.5-14, 4.5-15, 4.6-59, available at http://www.co.kern.ca.us/planning/pdfs/eirs/alon_flexibility_project/Alon_DEIR_Voll.pdf (Exhibit T).

¹⁸ See also Ex. O, pp. 22-23 (Fox report noting SCR is typically designed for a lifetime of 30 years and citing papers indicating SCRs that have been operational since as early as 1986); Selective Catalytic Reduction of NO_x From Fluid Catalytic Cracking Case Study: BP

Whiting Refinery (April 2002), available at <http://www.cornmetech.com/brochures/env-03-128%20-%20kunz%20%20Whiting%20Refinery%20FCC.pdf> (Exhibit KK [PDF 6, 15, 19]) (indicating SCRs operational since as early as 1986).

¹⁹ South Coast Air Quality Management District, LAER/BACT Determination for Application No. 343185, available at <http://www.aqmd.gov/docs/default-source/bact/laer-bact-determinations/other-technologies/laer-bact-determination-259724.pdf?sfvrsn=2> (Exhibit U).

²⁰ See Best Available Control Technology Determination Data Submitted to the California Air Pollution Control Officers Association BACT Clearinghouse, available at <http://www.arb.ca.gov/bact/bact1to3.htm> (Alta Dena Dairy) (Exhibit V [PDF 23]).

were consistently below 5 ppmvd at 3% O₂,²¹ which corresponds to 0.0061 lb/MMBtu.²² The District's BACT analysis should be revised to take into account the availability of LTO.

3. CO

With respect to CO emissions from boilers, Appendix D contains no top-down BACT analysis showing how the District concluded that an emissions limit of 50 ppmv CO at 3% O₂ is BACT. (Application Review p. 38; see Appendix D, PDF 477-81). The Air District must revise the analysis to show how this standard was derived.

In addition, lower emission rates are technologically feasible. Oxidation catalysts are used on many combustion sources outside of the refining industry.²³ These catalysts can remove over 90% of the CO and VOCs and represent the top technology for CO and VOC control for refinery heaters and boilers. Assuming uncontrolled CO limits of 10 ppm for large heaters and 50 ppm for small heaters, BACT for CO should be no more than 1 ppmvd (15-minute average) for the large heaters and 5 ppmvd (3-hour average) for the small heaters.

4. Hydrogen Sulfide

Regarding the boilers' sulfur emissions, the District fails to impose any limits on hydrogen sulfide when such controls are feasible. The District's Application Review states that "[n]atural gas with a fuel sulfur content no greater than 5 grains total sulfur/100 scf" constitutes BACT, but makes no mention of a hydrogen sulfide limit. While Alon will meet the total sulfur requirement by firing the new boilers "on PUC regulated natural gas as supplied to them by the utility company," and such gas is limited to a hydrogen-sulfide content of 0.25 grain per 100 standard cubic feet,²⁴ or 80 ppmv hydrogen sulfide,²⁵ a lower limit is feasible. The BAAQMD BACT Guidelines have determined that "Natural Gas or Treated Refinery Gas Fuel w/ <.50

²¹ Ex. U.

²² NOx emission rate (lb/MMBtu) = $[[\text{NOx concentration in exhaust gas (ppmvd)} \times 10\text{E-6} \times \text{NOx molecular weight (lb/lb mole)} \times \text{F factor in dscf/MMBtu}]/[\text{specific molar volume of exhaust gas at standard reference temperature (scf/lb mole)}]] \times [\text{oxygen correction}] = [[5 \times 10\text{E-6} \times 46.01 \times 8710] / 385.3][20.9\% / (20.9\% - 3\%)] = 0.0061 \text{ lb/MMBtu.}$

²³ BASF, Oxidation Catalysts for Power Generation, available at <http://www.catalysts.basf.com/p02/USWeb-Internet/catalysts/en/content/microsites/catalysts/prods-inds/stationary-emissions/catco-pow-gen> (Exhibit I).

²⁴ See General Order 58-A titled "Standards For Gas Service In The State of California," title 7(a), (b), available at: http://docs.cpuc.ca.gov/PUBLISHED/GENERAL_ORDER/54827.PDF (Exhibit W).

²⁵ See Santa Barbara County Air Pollution Control District, Frequently Asked Questions, available at: <http://www.ourair.org/eng/tech/frequently-asked-questions/> (noting PUC's hydrogen sulfide limit for natural gas is equivalent to 80 ppmv hydrogen sulfide) (Exhibit X).

ppmv Hydrogen Sulfide” is “cost effective” and “technologically feasible.” Ex. A. The Authority to Construct must be revised to consider this stricter hydrogen sulfide limit on the new boilers.

C. Stricter Fugitive Emissions Standards for Pumps and Compressors Are Feasible.

For fugitive emissions from pumps and compressors, the District’s BACT analysis concludes that a “[l]eak defined as a reading of methane in excess of 500 ppmv above background when measured per EPA Method 21, and an inspection and maintenance program pursuant to District Rule 4455” constitutes BACT. However, this standard does not specify how those emissions will be controlled to ensure leaks do not exceed this limit, and more stringent standards are feasible. Under the BAAQMD BACT Guidelines, a limit of “100 ppm expressed as methane measured using EPA Reference Method” is technologically feasible and cost effective for both compressors and pumps. Ex. A. The District’s BACT analysis must be revised to consider this lower fugitive emission standard.

II. The Air District’s Calculation of Baseline Emissions Violates District Rule 2201 and Does Not Represent Normal Source Operation

The Air District has chosen the calendar year 2008 as the baseline year for purposes of calculating the project’s “increases in stationary source emissions” for emissions offset purposes. See Application Review, Appendix F, PDF 491 (“Baseline period taken to be calendar year 2008, in accordance with Rule 2201 section 3.9, as described in the ATC application.”). Because this baseline violates District Rule 2201 and does not represent normal source operation, the Air District must revise the Authority to Construct’s emissions calculations using a baseline of zero emissions.

In order to determine the refinery’s baseline air emissions under the Air District’s New and Modified Stationary Source Review Rule, Rule 2201, the Air District has two options applicable here.²⁶ It may choose either:

- 3.9.1 the two consecutive years of operation immediately prior to the submission date of the Complete Application; or
- 3.9.2 at least two consecutive years within the five years immediately prior to the submission date of the Complete Application if determined by the APCO as more representative of normal source operation. . . .

²⁶ The other two options under Rule 2201 for calculating the baseline emissions don’t apply (“3.9.3 a shorter period of at least one year if the emissions unit has not been in operation for two years and this represents the full operational history of the emissions unit, including any replacement units; or 3.9.4 zero years if an emissions unit has been in operation for less than one year (only for use when calculating AER).”). The emissions units evaluated were either in place for more than one year or newly proposed.

The Authority to Construct application was submitted on October 25, 2013. Thus, under Rule 2201, the Air District could have chosen as the baseline years either (1) October 25, 2011-October 25, 2013; or (2) any two or more consecutive years between October 25, 2008 and October 25, 2013 if the Air District determined these years were more representative or normal source operation. Instead of complying with Rule 2201, however, the Air District erroneously chose the period from January 1, 2008 to December 31, 2008—outside of the timeframe allowed by the rule and shorter than the required period of two consecutive years.

Because no crude refining operations have occurred since December 2008, the Authority to Construct should be revised to reflect a baseline of zero emissions (years 2009-2010) as the most “representative of normal source operation.” Conditions at the Refinery have changed dramatically since 2008. Although the plant was designed to refine crude oil, it went into bankruptcy on December 21, 2008 and stopped processing crude and other feedstock; it was still non-operational when purchased by Alon USA in 2010.²⁷ Following the change in ownership, the plant was refashioned to convert intermediate vacuum gas oil into finished products, rather than process crude oil.²⁸

The Refinery only began operating again in this limited capacity in June 2011, after two-and-half years of being shut down.²⁹ No crude refining operations were resumed.³⁰ In 2012, gas oil processing operations were “intermittent,” only occurring “from June to early November.” DEIR, p. 3-19. The average throughput in 2011 and 2012 was only 10,915 and 4,751 bpd, or 15.5% and 6.8% of the Refinery’s daily capacity of 70,000 bpd. *Ibid.* Operations were suspended entirely in December 2012.³¹ Based on this record, 2008 calendar year operating conditions do not represent the current conditions at the Refinery, and the years the refinery was completely shut down are “more representative of normal source operation.” Rule 2201 § 3.9.2.

The Air District has repeatedly recognized that the operation of the refinery more than six years ago is not a representative baseline. On October 14, 2013, the Air District submitted comments on the Notice of Preparation on the DEIR, criticizing Kern County’s use of a 2007 baseline as “reflect[ing] the environmental setting in effect 6-7 years ago, which appears to be remote from the conditions in effect at the time the environmental analysis commenced.” Ex. CC. Similarly, in response to Alon’s request to use years 2007 and 2008 for the purposes of Rule 3170, Chay Thao of the Air District explained in a July 7, 2014 email that:

[I]n the past, operation of the refinery by the previous owner (Big West) was considerably different than operations under Alon USA. In 2007, the facility was

²⁷ See Alon USA, Annual Report (Form 10-K) (March 14, 2013), PDF 47 (Exhibit Y).

²⁸ See Alon USA, Quarterly Report (Form 10-Q) (Aug. 8, 2011), PDF 35 (Exhibit Z).

²⁹ See Alon USA, Quarterly Report (Form 10-Q) (May 9, 2012), PDF 33 (Exhibit AA).

³⁰ *Ibid.*; DEIR, p. 3-19.

³¹ Ex. Y, PDF 103; Alon USA, Form 10-Q (May 5, 2014), PDF 11 (noting Alon’s California refineries did not process “crude” in 2013 and first quarter of 2014) (Exhibit BB).

owned by Big West and was processing heavy crude oil to produce gasoline and diesel. Operations were then suspended in 2008 after Big West's bankruptcy. Alon USA purchased the facility in 2010 and then applied for Authority to Construct (ATC) permits to modify the facility to process gas oil, instead of heavy crude oil. This application included modifications to the catalytic reformer #1, amine/fuel gas unit, hydrocracker, depentanizer, and unloading rack to accommodate processing of shipped in gas oil. Piping modifications and installation of two additional loading bays to the unloading rack were also authorized. Alon then commenced operation in 2011 to process gas oil. Since then the facility has only operated intermittently.

Based on these changes, year 2007 and 2008 are not representative of normal source operation and therefore cannot be used for the Baseline Period[.]

See Ex. DD. As the Air District has repeatedly recognized, 2008 is an inappropriate year for baseline calculations as it does not represent normal operations. The Air District should accordingly revise the Authority to Construct to properly reflect that the refinery ceased operating during the baseline period.

III. The Assumptions Regarding the Project's Crude Slate Are Flawed.

The Application Review lists various assumptions used in its calculations of the Project's emissions, but these assumptions are not consistent with the Project's objective to import and process "cost-advantaged" light Bakken crude oil.³² The District's analysis and the Authority to Construct must be revised to reflect the emissions that will result from the importation, storage, and processing of this crude oil.

The Application Review states that the "[c]rude oil density" of crude that will be unloaded with the new railcar unloading rack is "0.915 g/mL (per Applicant)," but this figure does not represent the worst case in terms of VOC emissions. Application Review at 19; *see also id.* ("All liquids transferred will be conservatively assumed to be light crude oil...").³³ This crude oil density is within the range of heavy crude oil, not light crude oil, which will most likely

³² Kern County Final EIR for the Alon Bakersfield Refinery Crude Flexibility Project, vol. 3, Attachment F, PDF 553, available at http://www.co.kern.ca.us/planning/pdfs/eirs/alon_flexibility_project/Alon_FEIR_Ch7_RTC.pdf (Exhibit EE) ("The Bakken Region will be the most likely source for crude to be transported to the proposed crude oil rail terminal to be located at the Bakersfield Refinery."); *see also id.*, Attachment E, PDF 489, 528 (discussing Refinery's shift to lighter Bakken crudes); *id.* PDF 519-20 (noting Bakken crude's lower cost making it more attractive to process).

³³ The Application Review fails to note the temperature at which this density occurs. Since density is a function of temperature, it is unclear as to what type of crude oil is actually assumed in the District's analysis.

be unloaded and processed at the Refinery. According to the Transportation Safety Board of Canada's study of crude oil samples taken from the oil train that derailed in Lac-Mégantic, Quebec, Bakken crude can have a density as low as .8165 g/mL.³⁴ The National Energy Board of Canada defines light crude oil as having a density equal to, or less than, 875.7 kg/m³ (or .8757 g/mL) while heavy crude oil is defined as having a density greater than this threshold.³⁵

In addition, while the Application Review notes that the Reid Vapor Pressure of the crude oil that will be stored in floating roof tanks is assumed to be 9 psia, this figure is not representative of the vapor pressure of Bakken crude oils, which is more volatile than other light crudes, as explained in the attached report by Dr. Phyllis Fox commenting on the final EIR for the Project. See Ex. GG at pp. 4-10 and accompanying references to the comment letter. As Dr. Fox explains, Bakken crude oils typically have a higher Reid vapor pressure than other light crude oils, including a Reid Vapor Pressure of up to 15.5 psia, which results in significantly higher emissions of VOCs and toxic air contaminants ("TAC"). The District's emissions analysis must therefore be revised to reflect the higher vapor pressure and VOC and TAC emissions of Bakken crude oil. Moreover, tank inspection and monitoring requirements are too weak to ensure that fugitive emissions from the tanks are adequately controlled. District Rule 4623, section 6.1 only provides for tank inspections "on an annual basis" by the District. There are no other monitoring measures to ensure that the Project's tanks do not exceed the Reid Vapor Pressure assumed in the Air District's analysis and that fugitive emissions will not exceed the limits set forth in the Authority to Construct.

IV. The Retrofit of Existing Heaters Are Not Exempt from Emissions Offsets

The Application Review notes that because three existing heaters are being retrofitted solely to comply with District rules, the heaters are exempt from emissions offset requirements. However, all of the conditions for this exemption are not met in this case. See Section 4.6.8 ("For existing facilities, the installation or modification of an emission control technique performed solely for the purpose of compliance with the requirements of District, State or Federal air pollution control laws, regulations, or orders, as approved by the APCO, shall be exempt from offset requirements for all air pollutants provided all of the following conditions are met...") This includes condition 4.6.8.1, which requires that "[t]here shall be no increase in the physical or operational design of the *existing facility*, except for those changes to the design needed for the installation or modification of the emission control technique itself." (emphasis added). Here, the existing facility will undergo significant changes in its physical and operational design, including an increase in the Refinery's capacity to unload crude at the rail terminal and an increase in its capacity to refine both heavier and lighter crudes.

³⁴ Transportation Safety Board of Canada, TSB Laboratory Report LP148/2013, section 2.4, available at <http://www.tsb.gc.ca/eng/enquetes-investigations/rail/2013/R13D0054/lab/20140306/LP1482013.asp> (Exhibit FF).

³⁵ See *id.*, section 3.2.5 & notes 42-43 therein.

These changes will result in increased emissions from the existing heaters that are being retrofitted, which must be offset. According to the applicant, at least two of these heaters have been dormant for some time, and under the project, they will be reactivated. *See* Ex. HH (Kern County Environmental Impact Report Appendices noting post-project emissions of 19.44, 9.72, and 22.69 tons per year of CO from existing heaters compared to 0 tons per year under 2007 baseline conditions, and of 3.83, 2.40, and 4.47 tons per year of NOx compared to 0.30 tons per year under baseline conditions)³⁶; Ex. II at 19 (Project Application noting heaters 21-H21 and 27-H2 were dormant during baseline period).³⁷

V. All of the Emission Reduction Credits Proposed Are Invalid

The Air District has proposed to use emission reduction credit (ERC) certificate numbers S-4334-2, S-3465-5, S-3462-4, S-3458-3, and S-3663-1. Application Review at 46. These emission reductions credits come from three separate shutdowns or curtailments at the facility, all of which occurred decades ago: (1) the 1977 incineration of coker exhaust in the CO boiler—almost four decades ago (ERC S-3458-3, and S-3663-1); (2) the 1983 shutdown of the catalytic cracker, fluid coker, and CO boiler—more than three decades ago (ERC S-4334-2 & S-3465-5); and (3) the shutdown of the tailgas incinerator in 1992—more than two decades ago (ERC S-3462-4). *See* Ex. JJ.

Under District Rule 2201 and 2301, emission reductions used as ERCs must be “real, enforceable, quantifiable, surplus, and permanent.” Rule 2201 § 3.2.1; Rule 2301 § 4.1. Given the many changes that have occurred at the refinery since 1977, including the recent shutdown and previous reconfigurations of the refinery, these decades-old reductions are no longer “real” and will not actually offset the refinery’s significant projected air emissions. The notion that these shutdown units could still be operational today and “offset” the existing refinery’s emissions, after the many reconfigurations and shutdowns that the refinery has undergone, is purely fictional.

Moreover, as explained below, all of the ERC credits are either invalid or may not be employed here. The Air District may not approve the Authority to Construct until valid ERCs are included.

A. The Air District May Not Employ Banked Offsets for NOx and VOC Emissions

The Air District proposes to offset the project’s NOx and VOC emissions with ERC S-4334-2, for the 1983 “shutdown of catalytic cracker, fluid coker, & CO boiler,” and with ERC S-

³⁶*See* DEIR volume 2, Appendix B, available at http://www.co.kern.ca.us/planning/pdfs/eirs/alon_flexibility_project/Alon_DEIR_Vol2%20Cultural%20Redactions.pdf (Exhibit HH).

³⁷ For the same reasons, this modification is neither exempt from BACT. *See* Rule 2201, section 4.2.3 (requiring same conditions for BACT exemption).

3663-1, for the 1977 “incineration of coker exhaust in CO boiler.” Ex. JJ. Because the District may not approve the use of offsets for NO_x and VOC emissions until the 1-hour ozone plan is approved by EPA, the Air District may not issue the Authority to Construct in reliance on these offsets.

Air District Rule 2201 § 4.13.1 requires that “Major Source shutdowns or permanent curtailments in production or operating hours of a Major Source may not be used as offsets for emissions from . . . a Federal Major Modification . . . unless the ERC, or the emissions from which the ERC are derived, has been included in an EPA-approved attainment plan.”

The San Joaquin Valley air basin is currently designated as in extreme nonattainment with the 1-hour standard for ozone, for which NO_x and VOC emissions are precursors. The District does not yet have an approved attainment plan for the 1-hour ozone standard. Thus, the Air District may not use these banked emission reduction credits to offset the NO_x and VOC emissions of this project.

B. Emission Reduction Credit Certificates S-3458-3 and S-3663-1 Are Invalid

ERC S-3458-3, for CO reduction, and S-3663-1, for VOC reduction, state that they were issued for “incineration of coker exhaust in CO boiler.” Ex. JJ. The authority to construct for the CO boiler was issued on January 12, 1976, and operations began in May of 1977.³⁸ Because these reductions occurred prior to August 7, 1977, the credit given for these reductions is invalid, and may not be used here to offset project emissions. *See* 40 C.F.R. § 51.165(a)(2)(ii)(C)(1)(ii) (“in no event may credit be given for shutdowns that occurred before August 7, 1977.”).

Both the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) submitted comments on the proposed emission reduction credits, explaining the many reasons why the credits are invalid.³⁹ Both EPA and CARB pointed out that credits were invalid because the application for banking credit was submitted beyond the required time limits; a completed application was not submitted until October 1985, almost ten years after the reduction occurred. EPA also explained that

The reductions from the installation of the CO boiler are quite old. The burden is on the District to verify in its analysis that these reductions have not been assumed elsewhere (in the emissions inventory, the latest [air quality management plan], the attainment demonstration) and therefore are indeed surplus. In all likelihood, these reductions are not surplus since they occurred so long ago and

³⁸ *See* Letter, Raymond E. Menebroker, CARB, to Citron Toy, Kern County Air Pollution Control District (July 17, 1987) (Exhibit LL).

³⁹ *See* Letter, Raymond E. Menebroker, CARB, to Citron Toy, Kern County Air Pollution Control District (July 17, 1987) (Exhibit LL); Letter, David Howecamp, EPA, to Leon Hebertson, KCAPCD, (July 17, 1987) (Exhibit MM).

probably are already reflected in the District's records and plans. The District must verify that these reductions are not credited elsewhere.

Ex. LL. The District did not provide EPA with verification that these reductions were not credited elsewhere. EPA further explained that:

The reductions occurred prior to August 7, 1977 and are therefore too old to be granted credit. EPA has previously advised the District that banking credit may not be awarded for any reductions which occurred prior to the Clean Air Act Amendments of August 7, 1977.... EPA will not recognize these reductions as valid offsets for any source wishing to purchase these ERCs for offsetting purpose.

Ibid. EPA warned that "any source which attempts to use these emission reductions as an offset may be subject to federal enforcement action." *Ibid.*

Because ERCs S-3458-3 and S-3663-1 are invalid and "subject to federal enforcement action" if used, the Air District may not employ them here to offset the project's CO and VOC emissions.

C. Emission Reduction Credit Certificate S-3462-4 Is Invalid

ERC S-3462-4, for PM10 reductions from the March 1992 shutdown of the tailgas incinerator, does not represent the bankable emission reduction from this shutdown, and is therefore invalid.

In the application review for ERC S-3462-4, the Air District explained that the emission reductions eligible for an emission reduction credit certificate include the baseline emissions of the tailgas incinerator reduced by a 10% deposit into the "Community Bank". See Application review at 5 ("10% of AER shall be deposited to the Community Bank; remaining AER qualifies for the ERC Certificate.") (Exhibit NN). With this reduction, the Air District stated that the Bankable Emission Reductions, available for an ERC Certificate, were:

Quarter 1 Jan-Mar	Quarter 2 Apr-Jun	Quarter 3 Jul-Sep	Quarter 4 Oct-Dec.
1,425.41 lbs	1,689.42 lbs	1,611.54 lbs	1,776.42 lbs

Id. at 6. However, the Emission Reduction Certificate issued did not take the 10% reduction into account, and erroneously issued credits as:

Quarter 1 Jan-Mar	Quarter 2 Apr-Jun	Quarter 3 Jul-Sep	Quarter 4 Oct-Dec.
1,584 lbs	1,877 lbs	1,791 lbs	1,974 lbs

See Ex. JJ, ERC S-3462-4. Because this Certificate fails to comply with Air District Rule 2201 § 4.12.1 and 2301 § 4.2.2, it is invalid and may not be used to offset the project's PM10 emissions.

D. Emission Reduction Credit Certificate S-4334-2 and S-3465-5 Are Invalid

ERCs S-4334-2 and S-3465 state that they were issued for the "shutdown of catalytic cracker, fluid coker, & CO boiler." Ex. JJ. Because these certificates were originally applied for in 1987, more than 90 days after the 1983 shutdown occurred, the application was not timely filed and the certificates are invalid. See Letter from Leon Hebertson to L.E. Perrier (Aug. 27, 1987) (Exhibit OO).

The Air District acknowledged as much. In a letter on August 27, 1987 to Texaco Refining (the predecessor to the Alon Bakersfield Refinery), the Air District denied Texaco's original emission reduction credit application as untimely, explaining that:

On July 31, 1987 we received your applications for Emission Reduction Credit Banking Certificates resulting from the November, 1985 [sic] shutdown of the Tosco T.C.C. Unit, Fluid Coker, and CO Boiler. Review of these applications reveals that this request is not timely. Rule 210.3, section C.4.(b) requires applications for banking of emissions reductions to be submitted within 90 days after such reduction occurs. Because your proposal does not comply with this requirement, your applications for Emission Reduction Credits Banking Certificates must be denied within 30 days.

Ex. OO. After Texaco objected to the Air District's denial, the Air District reversed course and granted the requested emission reduction credits on April 14, 1988. In explaining the change, the Air District capitulated to Texaco's erroneous interpretation that because Texaco had maintained its operating permit, it had not actually "shutdown," even though the equipment had last been operated in 1983. Application Review for Application #s 2007130/101, '130/201, '130/401, '130/501, and '130/601 (Jan. 14 1988) (Exhibit PP) at 2. This interpretation, however, conflicts with Rule 2301 § 3.14, which defines "shutdown" for the purposes of awarding emission reduction credits as "either the *earlier* of the permanent cessation of emissions from an emitting unit or the surrender of that unit's operating permit." (emphasis added).

The Air District had it right the first time: the application was untimely because it was received more than 90 days after the shutdown occurred. ERC certificates S-4334-2 and S-3465 are therefore invalid and may not be used to offset this project's NOx and SOx emissions.

For the foregoing reasons, we respectfully request the Air District to revise the BACT and emissions offsets analysis for the proposed Authority to Construct and to require the proper pollution controls and emissions offsets, in compliance with Rule 2201.

Arnaud Marjollet
November 19, 2014
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APPENDIX L
District's Responses to Public Comments

COMMENTS AND RESPONSES

Public comments were received from Earthjustice (EJ) on 11/19/14. No other public comments or comments from CARB or EPA were received.

The comments and District responses are organized by topic below.

BEST AVAILABLE CONTROL TECHNOLOGY (BACT)

Comment 1:

Best Available Control Technology (BACT) was not properly applied to the two external floating roof tanks in this project. Installing internal floating roof tanks instead was not considered.

Response 1:

Please note that the originally proposed external floating roof tanks satisfy the District's BACT requirements for floating roof tanks. In determining BACT requirements, the specific category and class of source for the emissions unit must be considered. See Rule 2201 definition of Best Available Control Technology.

Subsequent to the District's preliminary decision, Alon modified their proposal to install internal floating roof tanks instead of external floating roof tanks, consistent with the comment. The newly proposed internal floating roof tanks also satisfy District BACT requirements.

Comment 2:

The BACT cost effectiveness analysis for the 3 boilers utilized inappropriate equipment life and interest rate assumptions.

Response 2:

EJ asserts that a 30-year equipment life, rather than the District's standard 10 years, be used in the top-down cost effectiveness analysis. Use of a 10 year equipment life is consistent with the District's approved BACT policy. This policy was last reviewed and updated in 2008, in conjunction with establishing updated cost-effectiveness thresholds, and the equipment life used in cost effectiveness calculations was determined to be appropriate at that time. By utilizing this policy in determining BACT cost effectiveness results in consistent BACT determinations performed by the District for a wide variety of categories and classes of sources.

In this case, a 10 year equipment life is supported by substantial costs to replace the SCR catalyst every 7 to 10 years. The 10 year equipment life is appropriate, given the significant cost for replacing catalyst.

EJ states that the District's use of the standard interest rate of 10% is not realistic and that an interest rate as low as 1.9% be used instead. Use of a 10% interest

rate is consistent with the District's approved BACT policy. This policy was last reviewed and updated in 2008 and the interest rate (the rate to borrow funds to finance the project) used in cost effectiveness calculations was determined to be appropriate and linked to the cost effectiveness values. Utilizing this policy in determining BACT cost effectiveness results in consistent BACT determinations performed by the District for a wide variety of categories and classes of sources, and changing it for a single project would eliminate this fairness and parity.

Comment 3:

NOx Low Temperature Oxidation (LTO) was not considered as BACT for the three boilers.

Response 3:

To our knowledge, there was only one instance of an installation of this technology. In the late 1990s one small boiler was installed in the SCAQMD in 1997. This installation was heavily subsidized with government funding. The District confirmed with SCAQMD staff that this boiler has since been removed from service and that no other installations of LTO for similar size boilers exist in SCAQMD.

The original installation of a small boiler equipped with LTO in the SCAQMD, resulted in NOx emission levels equivalent to emission levels achievable with selective catalytic reduction (SCR). SCR is a mature technology with a large installed base and a long operational history. Additionally, the costs of installing SCR presumed to be considerably less than the installation of LTO.

Further, the District's 2012 PM 2.5 attainment plan concluded that LTO installation on boilers is cost prohibitive for installations that are not subsidized.

For the above reasons, we concluded that because LTO may no longer be commercially available for use on small boilers, is no more effective at reducing NOx emissions, and is more costly than SCR we did not evaluate the cost effectiveness of LTO for the subject boilers.

The District has evaluated the use of SCR for the subject units and determined that it was not a cost effective option.

Comment 4:

No BACT top-down analysis was performed for carbon monoxide (CO) emissions for the boilers.

Response 4:

This was an oversight. A top-down BACT analysis for CO emissions for the subject boilers is included in the revised final decision. See revised final decision.

Comment 5:

The three boilers do not meet BACT for H₂S emissions.

Response 5:

The boilers are not a source of H₂S emissions, as they are fired exclusively on utility grade natural gas. Any sulfur compounds in the fuel are emitted as SO_x, not as H₂S. Therefore, BACT is not required for H₂S for the subject boilers.

Comment 6:

Facility pumps and compressors do not meet fugitive emissions BACT. A leak level of 100 ppmv should be required as BACT.

Response 6:

District BACT requires that fugitive VOC leaks be limited to a reading of methane below 500 ppmv above background when measured per EPA Method 21 and an Inspection and Maintenance Program pursuant to District Rule 4455. This level has been determined to be achievable through installation of low leak components and a rigorous LDAR program.

EJ cited the BAAQMD BACT clearinghouse that states that a leak rate of 100 ppmv from pumps and compressors is required as BACT. A review of this guideline indicates that such a leak level is identified as being technologically feasible, but not cost effective.

In consideration of this technologically feasible leak rate identified by the BAAQMD the District revised the BACT analysis for pumps and compressor seals to include an analysis to determine if a leak level of 100 ppmv for pumps and compressor seals is cost effective. We concluded that a 100 ppmv leak level is not cost effective, and therefore cannot be required as BACT. See revised application review.

OFFSETS:

Comment 7:

The District's determination of baseline emissions and offset requirements for existing modified units is not correct and violates Rule 2201.

Response 7:

The District correctly determined baseline emissions and offset requirement for all new and modified emissions units within the project.

However please note that the reference to baseline emissions and baseline period in the application review Appendix F, (PDF page 491) "Baseline period taken to be calendar year 2008, in accordance with Rule 2201 section 3.9, as described in the ATC application." is incorrect. Rather than determining a "baseline period" Appendix F represents the pre-project potential to emit (PE1) for each permit unit within the project. The pre-project potential to emit for permit units with fugitive emissions was calculated to more clearly show that the increase in fugitive emissions due to the installation of new components was subject to Rule 2201 offset requirements.

Certain permit units included an expressed pre-project potential, including fugitive emissions, that was previously established and included in the permit. Other permit units in the project did not have the pre-project potential to emit for fugitive emissions included in the permit. For these permit units the District determined the pre-project potential to emit based on the historic emission rates from these components and included an adjustment factor to account for their variability.

Please note that the pre-project potential to emit includes emissions (including fugitive emissions) from the existing, unmodified components. The post project potential to emit includes emissions from existing, unmodified fugitive components and new fugitive components. As the existing fugitive components are not new or modified, their emissions are not subject to the requirements of Rule 2201. Rather, only the new fugitive emissions from the new components are subject to the requirements of Rule 2201.

Comment 8:

The District has determined that the three process heaters being retrofitted for the project (S-33-52, '-56 and '-349) are exempt from offset requirements pursuant to Rule 2210, 4.6.8, as the actions are solely being undertaken to meet the requirements of District Rule 4306. The exemption from offsets is not appropriate, in that, the criteria for exemption listed in 4.6.8.1 has not been satisfied, i.e., that there is no increase in the physical or operation design of the facility.

Response 8:

The project does not increase the existing physical or operational design of the subject process heaters or of the refinery which has valid and existing District permits. The refinery's capacity to process crude oil is not being increased. Receiving crude oil by rail rather than by pipeline or other conveyance is not an expansion of the refinery's capacity. Likewise, the minor process equipment changes required to handle the different blend of crude oils is not an expansion of capacity.

EMISSIONS CALCULATIONS:

Comment 9:

The proposed crude oil density of 0.915 g/ml is within the density range for heavy crude oil, not the light crude oil, which will be processed at the facility.

Response 9:

The only emissions calculation that utilizes crude oil density are emissions associated with the dry-break couplers used to minimize spillage emissions from the unloading of railroad cars. Using a higher density in the calculation will result in a more conservative estimate of emissions. Assuming a specific volume of oil spilled in per disconnect, all oil is emitted as VOC.

Therefore, using the subject oil density provides for a conservative estimate of VOC emissions from disconnect losses that will account for the variety of oils that may be handled in the unloading of rail cars.

Comment 10:

Reid vapor pressure (RVP) for the floating roof storage tanks was assumed to be 9 psia, which is not representative of Bakken crude oils.

Response 10:

The applicant has indicated that the crude oil received will have an RVP of no greater than 9.0 psia. ATC conditions are included requiring recordkeeping and to testing for RVP of all liquids stored in the tanks. As such, compliance with the proposed RVP limit will be verified on an ongoing basis.

Please note that the crude oil storage tanks are not limited to handling Bakken crude oil or oil from any specific region of the U.S.

EMISSION REDUCTION CREDITS:

Comment 11:

All of the Emission Reduction Credits proposed as offsets are invalid.

Response 11:

Emission reduction credits are recognized by all air districts in California, the state Air Resources Board, and Federal EPA as real mitigation for emissions increases when appropriate safeguards are employed.

Specifically, Rule 2301 provides a mechanism for facilities that make voluntary emission reductions to store ERCs for later use as mitigation, or "offsets". Rule 2301 contains the following criteria that must be met for emission reductions to be eligible for ERCs:

- Credits are issued for actual emissions reductions that go beyond what is required by law. No credit is available for reducing permitted emissions,
- Actual emission reductions must be discounted for any requirements that currently apply and for any anticipated future requirements,
- Actual emission reductions must be real, i.e. they did in fact occur
- Actual emission reductions must be permanent, i.e. they cannot reoccur
- Actual emission reductions must be enforceable, i.e. through the surrender or modification of a District permit or other enforceable mechanism,
- Ten percent of the actual emission reductions are confiscated and retired permanently,
- All proposed Emission Reduction Credits are subject to CARB, EPA, and public comment before the District's final decision.

The ERCs proposed by Alon were demonstrated to meet these requirements when they were originally granted. As such, the proposed ERCs are valid for any use.

Further, all ERCs are incorporated in the District's growth factors as emissions in the air attainment plans and associated emissions inventories. The attainment plans then provide for real-time mitigation to ensure contemporaneous air quality benefit, regardless of the date the credits were banked. Finally, Comprehensive annual accounting and reporting document and verify real-time benefit to air quality.

It is important to note that Rule 2201 section 7.0 includes a requirement that the District demonstrate on an annual basis that the offset requirements of Rule 2201 are equivalent to the quantity of offsets that would be required by a Federal only non-attainment New Source review program. These provisions have been in place since 2001. Since that time the District, every year, has demonstrated offset equivalency with Federal New source review offset requirements.