



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT



NOV 26 2013

Mr. Gregory Clark
Lodi Gas Storage LLC
P.O. Box 230
Acampo, CA 95220-0230

Re: Proposed ATC / Certificate of Conformity (Significant Mod)
District Facility # N-4238
Project # N-1132438

Dear Mr. Clark:

Enclosed for your review is the District's analysis of an application for Authorities to Construct for the facility identified above. You requested that Certificates of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. This project is to designate four existing engines under permit units N-4238-1, N-4238-2, N-4238-3, and N-4238-4 as remote stationary RICE per 40 CFR 63 Part ZZZZ §63.6675(2), and to revise the engine permits to reflect recent changes to 40 CFR 63 Subpart ZZZZ.

After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Authorities to Construct with Certificates of Conformity. Please submit your comments within the 30-day public comment period, as specified in the enclosed public notice. Prior to operating with modifications authorized by the Authorities to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Rupī Gill, Permit Services Manager, at (209) 557-6400.

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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Mr. Gregory Clark
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Thank you for your cooperation in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "David Warner", with a long horizontal flourish extending to the right.

David Warner
Director of Permit Services

Enclosures

cc: Mike Tollstrup, CARB (w/enclosure) via email
cc: Gerardo C. Rios, EPA (w/enclosure) via email

San Joaquin Valley Air Pollution Control District Authority to Construct

Full-Time Natural Gas-Fired IC engines powering Compressors

Facility Name:	Lodi Gas Storage LLC	Revised Date:	November 7, 2013
Mailing Address:	P.O Box 230 Acampo, CA 95220-0230	Engineer:	Wai-Man So
Contact Person:	Gregory Clark	Lead Engineer:	Nick Peirce
Telephone:	(209) 368 – 9277 x 21	Email:	gclark@buckeye.com
Fax:	(209) 368 – 9276		
Application #(s):	N-4238-1-3, -2-3, 3-3, & -4-3		
Project #:	N-1132438		
Deemed Complete:	July 23, 2013		

I. PROPOSAL

Lodi Gas Storage LLC (hereinafter LGS) is requesting Authorities to Construct (ATC) for the modification of four Reciprocating Internal Combustion Engines (RICE) to designate the engines as remote stationary RICEs per 40 CFR 63 Subpart ZZZZ, section §63.6675(2), and to revise the engine permits to reflect recent changes to 40 CFR 63 Subpart ZZZZ. Proposal is detailed below.

- Remove reference to 40 CFR 63 Subpart ZZZZ on conditions 8 and 14 on each engine permit.
- Remove no longer applicable 40 CFR 63 Subpart ZZZZ requirements under conditions 17 through 20 on each engine permit.

The proposed changes to the permits are solely to comply with the recent changes to Subpart ZZZZ, and are not changing the method of operation of the engines. Per District Policy FYI 111, *ATC, Title V, and NSR Applicability Determinations*, the proposed changes are not subject to District Rule 2201.

LGS possesses a Title V permit. The proposed project is a Significant Modification to the Title V permit. The applicant has requested to issue the ATCs with Certificate of Conformity (COC), which is EPA's 45-day review of the project prior to the issuance of the final ATCs. This project will be published in the local newspaper, Stockton Record, for public review and comment. The public comment period will last 30-day from the date of publication. Both COC and public notice will run concurrently.

II. APPLICABLE RULES

District Rule 2201 New and Modified Stationary Source Review Rule (04/21/11)
District Rule 2410 Prevention of Significant Deterioration (effective 11/26/12)
District Rule 2520 Federally Mandated Operating Permit (06/21/2001)
District Rule 4001 New Source Performance Standard (NSPS) (04/14/1999)
District Rule 4002 National Emission Standards for Hazardous Air Pollutants (05/20/2004)
District Rule 4101 Visible Emissions (2/17/05)
District Rule 4102 Nuisance (12/17/92)
District Rule 4201 Particulate Matter Concentration (12/17/92)
District Rule 4701 Stationary Internal Combustion Engines – Phase 1 (8/21/2003)
District Rule 4702 Stationary Internal Combustion Engines – Phase 2 (1/18/2007)
District Rule 4801 Sulfur Compounds (12/17/92)
CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notice
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387:
CEQA Guidelines

III. PROJECT LOCATION

This facility is located at 23265 North State Route 99, Acampo in California. There is no increase of emissions as a result of this project. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. PROCESS DESCRIPTION

The IC engines power natural gas compressors. The maximum operating schedule of these engines is 24 hours per day and 365 days per year.

V. EQUIPMENT LISTING

Pre-Project Equipment Description & Post-Project Equipment Description

The proposed modification, to designate the stationary engines as remote stationary engines, will not change the equipment description for each permit unit, therefore, the pre-project equipment description is same as the post-project equipment description for each permit unit and summarized in the following table.

Permit Unit	Equipment Description
N-4238-1	4,445 BHP CATERPILLAR MODEL G3616 LEAN BURN NATURAL GAS-FIRED IC ENGINE POWERING A COMPRESSOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND A 2-WAY OXIDATION CATALYST.
N-4238-2	4,445 BHP CATERPILLAR MODEL G3616 LEAN BURN NATURAL GAS-FIRED IC ENGINE POWERING A COMPRESSOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND A 2-WAY OXIDATION CATALYST.
N-4238-3	4,445 BHP CATERPILLAR MODEL G3616 LEAN BURN NATURAL GAS-FIRED IC ENGINE POWERING A COMPRESSOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND A 2-WAY OXIDATION CATALYST.
N-4238-4	4,445 BHP CATERPILLAR MODEL G3616 LEAN BURN NATURAL GAS-FIRED IC ENGINE POWERING A COMPRESSOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND A 2-WAY OXIDATION CATALYST.

VI. EMISSION CONTROL TECHNOLOGY EVALUATION

There are no proposed changes to the emission control systems on each engine. Therefore, no further discussion of the emission control system is required.

VII. GENERAL CALCULATIONS

LGS is not proposed any changes to the emission factors, operating schedule, and/or fuel usage. Therefore, there is no change of emissions as a result of this project. Detail calculations are not necessary, emissions profiles are taken from previous project.

1. Pre-Project Stationary Source Potential to Emit (SSPE1)

Pre-project stationary source potential to emit are taken from engineering evaluation N-1073960 and summarized in the following table.

Permit Number	Pollutants (lb/yr)				
	NO _x	SO _x	PM ₁₀	CO	VOC
N-4238-1-2	18,483	906	13,735	38,290	18,423
N-4238-2-2					
N-4238-3-2					
N-4238-4-2					
N-4238-5-2	5,256	250	666	17,520	1,066
N-4238-6-2					
N-4238-7-2	322	2	33	3,325	33
N-4238-8-1	350	5	19	1,074	275
N-4238-9-1	3,360	51	180	10,320	2,460
SSPE1	27,781	1,214	14,633	70,529	22,437

2. Post-Project Stationary Source Potential to Emit (SSPE2)

Post-project stationary source potential to emit are same as the pre-project stationary source potential to emit, and summarized in the following table.

Permit Number	Pollutants (lb/yr)				
	NO _x	SO _x	PM ₁₀	CO	VOC
ATC N-4238-1-3	18,483	906	13,735	38,290	18,423
ATC N-4238-2-3					
ATC N-4238-3-3					
ATC N-4238-4-3					
N-4238-5-2	5,256	250	666	17,520	1,066
N-4238-6-2					
N-4238-7-2	322	2	33	3,325	33
N-4238-8-1	350	5	19	1,074	275
N-4238-9-1	3,360	51	180	10,320	2,460
SSPE2	27,781	1,214	14,633	70,529	22,437

3. Rule 2201 Major Source Determination

The facility is an existing major source for NO_x and VOC.

4. District Rule 2410 Major Source Determination

The pre-project potential CO₂e emissions from this stationary source including all natural gas-fired equipment are calculated to 30,352 ton-CO₂e/year. See detail PSD Major Source Determination Calculations in Appendix III of this document.

The facility evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21(b)(1)(i). Therefore, the following PSD Major Source thresholds are applicable.

PSD Major Source Determination (tons/year)							
	NO2	VOC	SO2	CO	PM	PM10	CO2e
Estimated Facility PE before Project Increase	13.9	11.2	0.6	35.3	7.3	7.3	30,352
PSD Major Source Thresholds	250	250	250	250	250	250	100,000
Existing PSD Major Source ? (Y/N)	N	N	N	N	N	N	N

As shown above, the facility is not an existing major source for PSD for any pollutant. Therefore, the facility is not an existing major source for PSD.

5. SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

As discussed in Section I of this document, the proposed modification will not result an increase of emissions for any pollutant, in addition, there is no physical change or change in the method of operation of these engines. Therefore, the proposed project cannot trigger an SB 288 Major Modification.

6. Federal Major Modification

A Federal Major Modification is defined in 40 CFR Part 5.165 as "Major modification means any physical change in or change in the method of operation of a major stationary source that would result in: 1) A significant emission increase of a regulated NSR pollutant; and 2) A significant net emission increase of that pollutant from the major stationary source."

As discussed in Section I of this document, this project will not result in a physical change or change in the method of operation of these engines, nor will the project result an increase of emissions for any pollutant. Therefore, the proposed project cannot trigger a Federal Major Modification.

7. Rule 2410 – Prevention of Significant Deterioration (PSD) Applicability Determination Calculations

Rule 2410 applies to pollutants for which the District is in attainment or for unclassified, pollutants. The pollutants addressed in the PSD applicability determination are listed as follows:

- NO2 (as a primary pollutant)
- SO2 (as a primary pollutant)
- CO
- PM
- PM10
- Greenhouses gases (GHG): CO2, N2O, CH4, HFCs, PFCs, and SF6

As determined in Section VII.4 of this document, this facility is not an existing PSD Major Source. Therefore, the project potential to emit from the modified unit is compared to the PSD major source thresholds to determine if the project is subject to the requirements of Rule 2410.

The facility evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21(b)(1)(i). Therefore, the following PSD Major Source thresholds are applicable.

PSD Major Source Determination (tons/year)							
	NO2	VOC	SO2	CO	PM	PM10	CO2e
Total PE from the modified units	9.2	9.2	0.5	19.1	6.9	6.9	24,819
PSD Major Source Thresholds	250	250	250	250	250	250	100,000
New PSD Major Source ? (Y/N)	N	N	N	N	N	N	N

As shown in the table above, the project potential to emit, by itself, does not exceed any of the PSD major source thresholds. Therefore Rule 2410 is not applicable and no further discussion is required.

VIII.COMPLIANCE

District Rule 2201 New and Modified Stationary Source Review Rule

As discussed in section I of this document, the proposed modification does not constitute an NSR modification. Pursuant to Section 3.25 of rule 2201, a modification is defined as:

- 3.25.1.1 Any change in hours of operation, production rate, or method of operation of an existing emissions unit, which would necessitate a change in permit conditions.

The proposed modification does not result in a change in the hour of operation, production rate, or method of operation which necessitates a change in permit conditions.

- 3.25.1.2 Any structural change or addition to an existing emissions unit which would necessitate a change in permit conditions. Routine replacement shall not be considered to be a structural change.

The proposed modification does not constitute a structural change or addition to an existing emissions unit which necessitates a change in permit conditions.

- 3.25.1.3 An increase in emissions from an emissions unit caused by a modification of the Stationary Source when the emissions unit is not subject to a daily emissions limitation.

The proposed modification does not result in an increase in emissions from any emissions unit.

- 3.25.1.4 Addition of any new emissions unit which is subject to District permitting requirements.

The proposed modification does not result in the addition of any new emissions unit.

- 3.25.1.5 A change in a permit term or condition proposed by an applicant to obtain an exemption from an applicable requirement to which the source would otherwise be subject.

The proposed change of permit conditions is solely to comply with the recent changes of the federal requirements, where those requirements are no longer applicable to the proposed emissions units.

As discussed above, the modification to these four existing RICEs does not meet any of the criteria for a modification. Therefore, the proposed modification is not subject to requirements of District Rule 2201.

District Rule 2410 Prevention of Significant Deterioration

The provisions of this rule shall apply to any source and the owner or operator of any source subject to any requirements under Title 40 Code of Federal Regulations (40 CFR) Part 52.21 as incorporated into this rule.

As demonstrated in Section VII.7 of this document, the proposed project is not subject to the requirements of Rule 2410; therefore no further discussion is required.

District Rule 2520 Federally Mandated Operating Permit

LGS possesses a Title V permit. The proposed project is considered a Significant Modification to the Title V permit. Therefore, the following conditions will be listed on each permit:

- *{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 NSR Rule]*
- *{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]*

In accordance with Rule 2520, the application meets the procedural requirements of section 11.4 by including:

- A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs and
- The source's suggested draft permit (Appendix I of this document) and
- Certification by a responsible official that the proposed modification meets the criteria for use of major permit modification procedures and a request that such procedures be used (Appendix V of this document)

Section 5.3.4 of this rule requires the permittee shall file an application for administrative permit amendments prior to implementing the requested change except when allowed by the operational flexibility provisions of section 6.4 of this rule.

LGS is expected to notify the District by filing the appropriate application forms prior to commencing operation. Therefore, compliance with the requirements of this Rule is expected.

District Rule 4001 New Source Performance Standards (NSPS)

40 CFR 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

This subpart is applicable to operators of stationary spark-ignited IC engines, where the operator commenced construction of a maximum horsepower greater than 500 HP stationary IC engine after June 12, 2006, provided that the engine was manufactured on or after July 1, 2007.

These existing IC engines were installed before June 12, 2006. Therefore, these engines are not subject to the requirements of this subpart and no further discussion will be required.

District Rule 4002 National Emission Standards for Hazardous Air Pollutants

40 CFR 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Emissions (RICE)

Applicability

This subpart is applicable to any stationary spark-ignited (SI) reciprocating internal combustion engine (RICE) at a major or area source of HAP (Hazardous Air Pollutant) emissions, except if the stationary engine is being tested at a stationary engine test cell/stand. A major source of HAP emissions is a facility that has the potential to emit any single HAP at a rate of 10 tons/year or greater or any combinations of HAPs at a rate of 25 tons/year or greater. An area source of HAP emissions is a facility is not a major source of HAP emissions.

40 CFR 63 Subpart ZZZZ section §63.6590(a)(1)(iii) states an existing stationary RICE where it is located at an area source of HPA emissions, and the engine was constructed or reconstructed before June 12, 2006.

The proposed engines are stationary RICE located at an area source of HAP emissions (see detail HAP emission calculation in Appendix IV of this document), and were constructed prior to June 12, 2006. Therefore, these engines are considered existing engines and are subject to the requirements of this subpart.

Compliance Date

40 CFR 63 Subpart ZZZZ section §63.6595(a)(1) indicates the existing stationary SI RICE located at an area source of HAP emissions must comply with the applicable limitations and operating limitations no later than *October 19, 2013*.

The following condition will be listed on the ATC to ensure compliance:

- *The engine shall be in full compliance with 40 CFR Part 63 Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR Part 63 Subpart ZZZZ]*

In addition, the applicant proposed to designate these four existing engines as remote stationary RICEs per 40 CFR 63 Subpart ZZZZ, section §63.6675(2).

40 CFR 63 Subpart ZZZZ section §63.6675(2) defines remote stationary RICE as a Stationary RICE located on a pipeline segment that meets both of the following criteria:

- 1) A pipeline segment with 10 or fewer buildings intended for human occupancy and no buildings with four or more stories within 220 yards (200 meters) on either side of the centerline of any continuous 1-mile (1.6 kilometers) length of pipeline. Each separate dwelling unit in a multiple dwelling unit building is counted as a separate building intended for human occupancy.
- 2) The pipeline segment does not lie within 100 yards (91 meters) of either a building or a small well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 20 weeks in any 12-month period. The days and weeks need not be consecutive. The building or area is considered occupied for a full day if it is occupied for any portion of the day.

For purposes of this section, the term pipeline segment means all parts of those physical facilities through which gas moves in transportation, including but not limited to pipe, valves, and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies. Stationary RICE located within 50 yards (46 meters) of the pipeline segment providing power for equipment on a pipeline segment are part of the pipeline segment. Transportation of gas means the gathering, transmission, or distribution of gas by pipeline, or the storage of gas. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

Per provided information, these existing RICEs meet the remote stationary RICE definition. See Appendix VI of this document for the submitted initial evaluation.

Emission and Operating Limitations

40 CFR 63 Subpart ZZZZ section §63.6603(a), states the owner or operator of an existing non-emergency, non-black start 4SLB remote stationary SI RICE > 500 hp located at an area source of HAP emissions must comply with the requirements listed in Table 2(d)(8).

40 CFR 63 Subpart ZZZZ Table 2(d)(8), lists the following requirements for non-emergency, non-black start 4SLB remote stationary RICE > 500 hp engine during the normal operation:

- a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first;¹
- b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and
- c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.

As describes in footnote 1 below, the owners/operators have the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement of this subpart.

40 CFR 63 Subpart ZZZZ, section §63.6625(i) applies to stationary CI engine that is subject to the work, operation or management practices in items 1 or 4 of Table 2d to this subpart.

40 CFR 63 Subpart ZZZZ, section §63.6625(j) applies to stationary SI engine that is subject to the work, operation or management practices in items 5, 6, 7, 9, or 11 of Table 2d to this subpart.

The proposed engines are subjected to item 8 of Table 2d of this subpart, therefore, the oil analysis program option is not applicable. The owner/operator must follow the requirements prescribed in 40 CFR 63 Subpart ZZZZ Table 2(d)(8) listed above.

The following conditions will be listed on the ATC to ensure compliance:

- *The engine's oil and filter shall be changed every 2,160 hours of operation or annually, whichever comes first. [40 CFR Part 63 Subpart ZZZZ]*
- *The engine's spark plugs shall be inspected every 2,160 hours of operation or annually, whichever comes first, and shall be replaced as necessary. [40 CFR Part 63 Subpart ZZZZ]*
- *The engine's hoses and belts shall be inspected every 2,160 hours of operation or annually, whichever comes first, and shall be replaced as necessary. [40 CFR Part 63 Subpart ZZZZ]*

In addition, 40 CFR 63 Subpart ZZZZ §63.6603(f) states owners and operators of existing non-emergency, SI 4SLB RICE with a site rating of more than 500 HP located at area sources of HAP that meet the definition of remote stationary RICE in §63.6675 of this subpart as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months.

¹ Sources have the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2d of this subpart.

Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation.

Therefore, the following conditions will be listed on the ATC to ensure compliance:

- *Owners and operators of the engine that meet the definition of remote stationary RICE in §63.6675 of 40 CFR Part 63 Subpart ZZZZ as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. [40 CFR Part 63 Subpart ZZZZ]*
- *Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation. [40 CFR Part 63 Subpart ZZZZ]*

General Compliance Requirements

40 CFR 63 Supart ZZZZ section §63.6612(b) states the owner or operator of an existing stationary RICE located at an area source of HAP emissions is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described below:

- (1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.
- (2) The test must not be older than 2 years.
- (3) The test must be reviewed and accepted by the Administrator.
- (4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustment, reliably demonstrate compliance despite process or equipment changes.

The facility conducted the last test on May 16, 2013, and the test meet all of the conditions listed above.

40 CFR 63 Subpart ZZZZ, section §63.6625(h) states owner or operator must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Table 2d of this subpart.

The following condition will be listed on the ATC to ensure compliance:

- *The owners or operators must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR Part 63 Subpart ZZZZ]*

Notifications, Reports, and Records

40 CFR 63 Subpart ZZZZ, section §63.6655(a)(2) & (5) states the owner or operator must keep records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment; and records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

The following condition will be listed on the ATC to ensure compliance:

- *The owner or operator shall maintain monthly records of the following: (1) the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment, and (2) actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR Part 63 Subpart ZZZZ]*

40 CFR 63 Subpart ZZZZ, section §63.6660 states all records shall be maintained and retained on-site for at least 5 years.

The following condition will be listed on the ATC to ensure compliance:

- *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. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 4701 and 4702 and 40 CFR Part 63 Subpart ZZZZ]*

Compliance with the requirements of this rule is expected.

District Rule 4101 Visible Emissions

District Rule 4101, Section 5.0, indicates that no air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour, which is dark or darker than Ringelmann 1 or equivalent to 20% opacity. The following condition will be listed on the permit to ensure compliance:

- *{15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]*

District Rule 4102 Nuisance

Section 4.0 prohibits discharge of air contaminants, which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. The following condition will be listed on the permit to ensure compliance:

- *{98} No air contaminant shall be released into the atmosphere, which causes a public nuisance. [District Rule 4102]*

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905-1 (March 2, 2001) - Risk Management Policy for Permitting New and Modified Sources specifies that for an increase in emissions associated with a proposed new source or modification.

There are no increases in emissions associated with this project. Therefore, no further risk analysis is required.

District Rule 4201 Particulate Matter Concentration

Section 3.0 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot. The maximum particulate matter factor for each engine that results in compliance with the particulate matter concentration of 0.1 gr/dscf can be calculated as follows:

$$0.1 \frac{g - PM_{10}}{bhp - hr} \times \frac{g - PM_{10}}{bhp - hr} \times \frac{1g - PM}{0.96g - PM_{10}} \times \frac{1bhp - hr}{2,542.5 Btu} \times \frac{10^6 Btu}{8,578 dscf} \times \frac{0.35 Btu_{out}}{1 Btu_{in}} \times \frac{15.43 grain}{g} = 0.0244 \frac{grain - PM}{dscf}$$

Since 0.0244 grain/dscf is less than 0.1 grain/dscf, therefore, compliance with District Rule 4201 requirements is expected and a permit condition will be listed on each permit as follows:

- *{14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]*

District Rule 4701 Internal Combustion Engines – Phase 1

The purpose of this rule is to limit the emissions of nitrogen oxides (NOx), carbon monoxide (CO), and volatile organic compounds (VOC) from internal combustion engines.

The proposed engines are also subject to District Rule 4702, Internal Combustion Engines. Since emissions limits of District Rule 4702 and all other requirements are equivalent or

more stringent than District Rule 4701 requirements, compliance with District Rule 4702 requirements will satisfy requirements of District Rule 4701.

District Rule 4702: Internal Combustion Engines – Phase 2

The following table demonstrates how the proposed engines will comply with the requirements of District Rule 4702.

District Rule 4702 Requirements for Spark-Ignited IC Engines	Proposed Method of Compliance with District Rule 4702 Requirements
<p>Section 5.2.1, Table 1, states that the owner/operator shall not operate a rich-burn natural gas-fired ICE results in emissions exceeding the following limits:</p> <ul style="list-style-type: none"> o NOx – 65 ppmv @ 15% O2 o CO – 2,000 ppmv @ 15% O2 o VOC – 750 ppmv @ 15% O2 	<p>The current permits have the following emissions limits:</p> <ul style="list-style-type: none"> • NOx – 11.9 ppmv @ 15% O2 • CO – 40.5 ppmv @ 15% O2 • VOC – 34.1 ppmv @ 15% O2 <p>Therefore, the following condition will be included on the permit to ensure compliance with the requirements of this section:</p> <ul style="list-style-type: none"> o <i>Emissions from this IC engine shall not exceed any of the following limits: 11.9 ppmvd NOx @ 15% O2 referenced as NO2, 40.5 ppmvd CO @ 15% O2, 34.1 ppmvd VOC @ 15% O2, or 0.0066 g-SOx/bhp-hr. [District Rules 2201, 4701, and 4702]</i>
<p>Section 5.2.2, Table 2, lists future emission requirement for this engine as follows:</p> <ul style="list-style-type: none"> o NOx – 65 ppmv @ 15% O2 o CO – 2,000 ppmv @ 15% O2 o VOC – 750 ppmv @ 15% O2 	<p>This facility has more than one engine but less than twelve engines, and therefore, the future emission requirements will become effective in January 1, 2016.</p> <p>As indicated above, these existing four ICEs will comply with the future emission requirements. However, these future requirements are not currently in effect, therefore, additional permit condition to ensure compliance with the future requirements will not be necessary at this time.</p>
<p>Section 5.3 requires that all continuous emissions monitoring systems (CEMS) emissions measurements shall be average over a period of 15 consecutive minutes.</p>	<p>These existing ICEs are not equipped with CEMS, therefore, the requirement of this section is not applicable.</p>
<p>Sections 5.4 and 5.5 apply to engine that comply with NOx emission reduction percentages in Section 5.2.</p>	<p>The applicant is not proposing the use of percent emissions reduction to comply with the NOx emission limit of Section 5.2. Therefore, the requirements of these sections do not apply.</p>
<p>Section 5.6 provides an option of a payment of annual fee in lieu of complying with a NOx emission limit.</p>	<p>As shown above, these existing ICEs will comply with the emission limits listed in Section 5.2.2. Therefore, a payment of annual fee option is not necessary.</p>

<p>Section 5.7.1 lists SOx emission control requirements on and after 1/1/2014 for this engine as: operate the engine exclusively on PUC-quality natural gas, commercial propane, butane, or liquefied petroleum gas, or a combination of such gases.</p>	<p>These existing ICEs are fire exclusively on PUC-quality natural gas, and the following condition will continue be included on the permit to ensure compliance with the requirements of this section:</p> <ul style="list-style-type: none"> o <i>The engine shall be fired solely on PUC-quality natural gas. [District Rule 4702]</i>
<p>Section 5.8.1 requires the owner/operator of a none-AO spark-ignited engine with a rated brake horsepower of 1,000 bhp or greater and which is allowed by Permit to Operate to operate more than 2,000 hours per calendar year, either install, operate, and maintain continuous monitoring equipment for NOx, CO, and oxygen, or install, operate, and maintain APCO-approved alternate monitoring. APCO—approved alternate monitoring shall consist of one or more of the following:</p> <ul style="list-style-type: none"> o Periodic NOx & CO emission concentrations, o Engine exhaust oxygen concentration, o Air-to-fuel ratio, o Flow rate of reducing agents added to engine exhaust, o Catalyst inlet and exhaust oxygen concentration, or o Other operational characteristics. 	<p>The applicant proposed to continue use pre-approved alternate monitoring plan that specifies that the permittee perform periodic NOx, CO, and O2 emissions concentrations monitoring pursuant to District Policy SSP 1810. Therefore, the following condition will continue be included on the permit to ensure compliance with the requirements of this section:</p> <ul style="list-style-type: none"> o <i>The permittee shall monitor and record the stack concentration of NOx as (NO2), CO, and O2 at least once every month using a portable emission monitor that meets District specifications [In stack O2 monitors may be allowed if approved by the APCO]. Monitoring for a given calendar month shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 72 hours after restarting the engine unless monitoring has been performed during that month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701 and 4702, and 40 CFR Part 64]</i>
<p>Section 5.8.6 requires the owner/operator to install and operate a nonresettable elapsed operating time meter or other APCO approved alternative, for each engine.</p>	<p>The following condition will be included on the permit to ensure compliance with the requirements of this section:</p> <ul style="list-style-type: none"> • <i>This engine shall be equipped and operated with a properly maintained nonresettable elapsed time meter. [District Rule 4702]</i>
<p>Section 5.8.7 requires the owner/operator for each engine, implement the Inspection & Monitoring (I&M) plan if any, submitted to an approved by the APCO pursuant to Section 6.5.</p>	<p>The applicant has proposed continuously use pre-approved alternate monitoring plan to monitor NOx, CO, and O2 concentration pursuant to District Policy SSP 1810. This proposal has previously been approved for other projects. Therefore, the proposed I&M plan meets the requirements of this section.</p>

<p>Section 5.8.9 states that when the operator use a portable analyzer to take emission readings to verify compliance with the Rule limits, which all emission readings shall be taken with the engine operating in normal operations. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations.</p>	<p>The following condition will be included on the permit to ensure compliance with the requirements of this section:</p> <ul style="list-style-type: none"> • <i>{3787} 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 Rule 4702]</i>
<p>Section 5.9 lists monitoring requirements for engines not subject to Section 5.8.</p>	<p>The proposed ICEs are subject to monitoring requirements of Section 5.8 of this rule. Therefore, the requirements of this section do not apply.</p>
<p>Section 5.10 specifies SOx emissions monitoring requirements for engines complying with Section 5.7.2, 5.7.5, or 5.7.6.</p>	<p>The proposed ICEs will continue comply with Section 5.7.1 by firing exclusively on PUC-quality natural gas. Therefore, the requirements of this section do not apply.</p>
<p>Section 6.1 requires the operator of an engine subject to the requirements of Section 5.2 of this rule shall submit an emissions control plan for all actions taken to satisfy the emission requirements of Section 5.2.</p>	<p>The applicant proposed no change to the current approved emission control plan. Therefore, the proposed ICEs will continue comply with the requirements of this section.</p>
<p>Section 6.2 requires the operator of an engine subject to the requirements Section 5.2 of this rule shall maintain an engine operating log including the following, on a monthly basis:</p> <ul style="list-style-type: none"> ○ Total hours of operation ○ Type of fuel used ○ Maintenance or modifications performed ○ Monitoring data ○ Compliance source test results, and ○ Any other information necessary to demonstrate compliance with this rule 	<p>The following condition will be included on the permit to ensure compliance with the requirements of this section:</p> <ul style="list-style-type: none"> • <i>The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rules 4701 and 4702]</i>

<p>Section 6.2.2 requires that the data collected pursuant to the requirements of Section 5.6 shall be retained for a period of at least five years, shall be readily available, and made available to the APCO upon request.</p>	<p>The following condition will be included on the permit to ensure compliance with the requirements of this section:</p> <ul style="list-style-type: none"> • <i>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. For units at unstaffed sties or operated remotely, records may be maintained and retained at a District-approval off-site location. [District Rules 4701 and 4702 and 40 CFR Part 63 Subpart ZZZZ]</i>
<p>Section 6.3.2 requires that the operator of an engine subject to the requirements of Section 5.2, which engine equipped with an exhaust control device, to demonstrate compliance with the applicable emission limits during the initial start-up and at least once every 24 months thereafter.</p> <p>Section 6.3.3 requires that the test must be conducted with the unit operating at normal operating conditions and using three 30-consecutive minute test runs. In addition, VOC shall be reported as methane, VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15 percent oxygen.</p>	<p>Current permits have more stringent testing requirements, and the applicant is not proposing any changes to the testing frequency.</p> <p>The following conditions will continue be included on the permit to ensure compliance with the requirements of these sections:</p> <ul style="list-style-type: none"> • <i>Source testing to measure the NOx, CO, VOC, and ammonia slip emissions from this unit shall be conducted annually. [District Rules 2201, 4701 and 4702]</i> • <i>Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rules 4701 and 4702]</i> • <i>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. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 4701 and 4702]</i>

<p>Section 6.4 requires that the compliance with the requirements of Section 5.2 be determined in accordance with the following test procedures:</p> <ul style="list-style-type: none"> o Oxides of nitrogen - EPA Method 7E, or ARB Method 100. o Carbon monoxide - EPA Method 10, or ARB Method 100. o Stack gas oxygen - EPA Method 3 or 3A, or ARB Method 100. o Volatile organic compounds - EPA Method 25A or 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the test. o Operating horsepower determination - any method approved by EPA and the APCO. 	<p>The following condition will be included on the permit to ensure compliance with the requirements of this section:</p> <ul style="list-style-type: none"> • <i>The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100, where methane and ethane are exempt compounds, shall be excluded from the result of the test. [District Rules 1081, 4701, and 4702]</i>
<p>Section 6.5 requires that the operator of an engine subject to the emission limits in Section 5.2, to submit to the APCO for approval, an I&M plan that specifies all actions to be taken to satisfy the requirements of this section and the requirements of Section 5.8.</p>	<p>The following conditions will be included on the permit to ensure compliance with the requirements of this section:</p> <ul style="list-style-type: none"> • <i>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 engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701 and 4702]</i> • <i>If either the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, 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 performing the notification</i>

	<p>and testing required by this condition. [District Rules 4701 and 4702]</p> <ul style="list-style-type: none">• This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rules 4701 and 4702]• 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 4701 and 4702]• 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 15% 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 4701 and 4702]• The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 4701 and 4702]
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Compliance with this Rule is expected.

District Rule 4801 Sulfur Compounds

Rule 4801 requires that sulfur compound emissions (as SO₂) shall not exceed 0.2% by volume. Using the ideal gas equation, the sulfur compound emissions are calculated as follows:

$$\text{Volume SO}_2 = (n \times R \times T) \div P$$

n = moles SO₂

T (standard temperature) = 60 °F or 520 °R

R (universal gas constant) = $\frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot \text{°R}}$

$$\frac{0.00285 \text{ lb} - \text{SO}_x}{\text{MMBtu}} \times \frac{\text{MMBtu}}{8,578 \text{ dscf}} \times \frac{1 \text{ lb} \cdot \text{mol}}{64 \text{ lb}} \times \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot \text{°R}} \times \frac{520 \text{ °R}}{14.7 \text{ psi}} \times \frac{1,000,000 \cdot \text{parts}}{\text{million}} = 1.97 \frac{\text{parts}}{\text{million}}$$

Since 1.97 ppmv is ≤ 2,000 ppmv, this engine is expected to comply with Rule 4801.

California Health & Safety Code 42301.6 (School Notice)

As discussed in Section III of this Document, a school notice is not required for this project.

California Environmental Quality Act (CEQA)

CEQA requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The District adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

The District performed an Engineering Evaluation (this document) for the proposed project and determined that none of the project specific emission unit(s) triggers Best Available Control Technology (BACT) requirements. Furthermore, the District has determined that the proposed project would not have potential emissions increases.

Issuance of permits for emissions units not subject to BACT requirements and with health impact less than significant is a matter of ensuring conformity with applicable District rules and regulations and does not require discretionary judgment or deliberation. Thus, the District concludes that this permitting action constitutes a ministerial approval. Section 21080 of the Public Resources Code exempts from the application of CEQA those projects over which a public agency exercises only ministerial approval. Therefore, the District finds that this project is exempt from the provisions of CEQA.

IX. RECOMMENDATION

Compliance with all applicable rules and regulations is expected. Issue Authorities to Construct N-4238-1-3, N-4238-2-3, N-4238-3-3, and N-4238-4-3 permits subject to the permit conditions listed on the attached draft Authorities to Construct in Appendix I.

X. BILLING INFORMATION

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
N-4238-1-3	3020-10-F (1,000 or Greater but less than 5,000 bhp)	4,445 bhp	\$ 749
N-4238-2-3		4,445 bhp	\$ 749
N-4238-3-3		4,445 bhp	\$ 749
N-4238-4-3		4,445 bhp	\$ 749

APPENDICES

- Appendix I: Draft Authorities to Construct (ATC)*
- Appendix II: Permits to Operate (PTO)*
- Appendix III: PSD Major Source Determination*
- Appendix IV: HAP Emissions Calculations*
- Appendix V: Compliance Certification*
- Appendix VI: Remote Stationary RICE Initial Evaluation*

APPENDIX I

Draft Authorities to Construct (ATC)

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: N-4238-1-3

LEGAL OWNER OR OPERATOR: LODI GAS STORAGE LLC
MAILING ADDRESS: P O BOX 230
ACAMPO, CA 95220-0230

LOCATION: 23265 N STATE ROUTE 99
ACAMPO, CA 95220

SECTION: 13 **TOWNSHIP:** 4N **RANGE:** 6E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 4,445 BHP CATERPILLAR MODEL G3616 LEAN BURN NATURAL GAS-FIRED IC ENGINE POWERING A COMPRESSOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND A 2-WAY OXIDATION CATALYST. TO DESIGNATE THE ENGINE AS REMOTE STATIONARY ENGINE AND REVISE PERMIT CONDITIONS TO REFLECT THE RECENT CHANGES TO 40 CFR 63 SUBPART ZZZZ REQUIREMENTS.

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. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The engine shall be fired solely on PUC-quality natural gas. [District Rule 4702] Federally Enforceable Through Title V Permit
5. The engine shall be equipped and operated with a properly maintained nonresettable elapsed time meter. [District Rule 4702] Federally Enforceable Through Title V Permit
6. The facility shall install and properly maintain a fuel flow meter, a pressure and temperature transmitter and a gas chromatograph for the purpose of monitoring the fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 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

N-4238-1-3 - Nov 7 2013 1:33PM - SCW Joint Inspection NOT Required

7. The engine shall be in full compliance with 40 CFR Part 63 Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR Part 63 Subpart ZZZZ]
8. The engine's oil and filter shall be changed every 2,160 hours of operation or annually, whichever comes first. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
9. The engine's spark plugs shall be inspected every 2,160 hours of operation or annually, whichever comes first, and shall be replaced as necessary. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
10. The engine's hoses and belts shall be inspected every 2,160 hours of operation or annually, whichever comes first, and shall be replaced as necessary. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
11. Owners and operators of the engine that meet the definition of remote stationary RICE in §63.6675 of 40 CFR Part 63 Subpart ZZZZ as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
12. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
13. The owners or operators must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR Part 63 Subpart ZZZZ]
14. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
15. The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
16. The NO_x emission concentration shall not exceed 11.9 ppmvd @ 15% O₂. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
17. The CO emission concentration shall not exceed 40.5 ppmvd @ 15% O₂. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
18. The VOC emission concentration shall not exceed 34.1 ppmvd, as methane, @ 15% O₂. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
19. The SO_x emission concentration shall not exceed 0.0066 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The PM₁₀ emission concentration shall not exceed 0.1 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The ammonia emission concentration shall not exceed 10 ppmvd @ 15% O₂. [District Rule 2201] Federally Enforceable Through Title V Permit
22. The combined fuel usage of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall not exceed 127,279 MMBtu during any one calendar quarter and shall not exceed 424,264 MMBtu during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
23. The permittee shall monitor and record the stack concentration of NO_x (as NO₂), CO, and O₂ at least once every calendar month using a portable emission monitor that meets District specifications [In stack O₂ monitors may be allowed if approved by the APCO]. Monitoring for a given calendar month shall not be required if the engine is not operated during that calendar month, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 72 hours after restarting the engine unless monitoring has been performed during that month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701, 4702 and 40 CFR Part 64] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

24. If either the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, 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 performing the notification and testing required by this condition. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
25. 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 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
26. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
27. Source testing for NO_x, CO, VOC and ammonia slip shall be conducted annually. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
28. 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
29. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rules 4701 and 4702]
30. 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 Rules 1081, 4701 and 4702] 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. VOC, NO_x, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
32. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100, where methane and ethane are exempt compounds, shall be excluded from the result of the test. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
33. Source testing for ammonia slip shall be conducted utilizing BAAQMD method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit
34. 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
35. Records of the quarterly and the annual fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

36. 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 15% O₂, (3) make and model of the 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 4701 and 4702] Federally Enforceable Through Title V Permit
37. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information; (1) Total hours of operation; (2) type and quantity of fuel burned (in cubic feet); (3) maintenance or modifications performed; (4) monitoring data; (5) compliance source test results; (6) the purpose of engine operation; (7) any other information necessary to demonstrate compliance with District Rules 4701 and 4702. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
38. The permittee shall maintain monthly records of the following: (1) the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment, and (2) actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR Part 63 Subpart ZZZZ]
39. 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. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 4701 and 4702 and 40 CFR Part 63 Subpart ZZZZ] 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: N-4238-2-3

LEGAL OWNER OR OPERATOR: LODI GAS STORAGE LLC
MAILING ADDRESS: P O BOX 230
ACAMPO, CA 95220-0230

LOCATION: 23265 N STATE ROUTE 99
ACAMPO, CA 95220

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 4,445 BHP CATERPILLAR MODEL G3616 LEAN BURN NATURAL GAS-FIRED IC ENGINE POWERING A COMPRESSOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND A 2-WAY OXIDATION CATALYST. TO DESIGNATE THE ENGINE AS REMOTE STATIONARY ENGINE AND REVISE PERMIT CONDITIONS TO REFLECT THE RECENT CHANGES TO 40 CFR 63 SUBPART ZZZZ REQUIREMENTS.

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. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The engine shall be fired solely on PUC-quality natural gas. [District Rule 4702] Federally Enforceable Through Title V Permit
5. The engine shall be equipped and operated with a properly maintained nonresettable elapsed time meter. [District Rule 4702] Federally Enforceable Through Title V Permit
6. The facility shall install and properly maintain a fuel flow meter, a pressure and temperature transmitter and a gas chromatograph for the purpose of monitoring the fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 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

N-4238-2-3 Nov 7 2013 1:33PM - SDW Joint Inspection NOT Required

7. The engine shall be in full compliance with 40 CFR Part 63 Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR Part 63 Subpart ZZZZ]
8. The engine's oil and filter shall be changed every 2,160 hours of operation or annually, whichever comes first. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
9. The engine's spark plugs shall be inspected every 2,160 hours of operation or annually, whichever comes first, and shall be replaced as necessary. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
10. The engine's hoses and belts shall be inspected every 2,160 hours of operation or annually, whichever comes first, and shall be replaced as necessary. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
11. Owners and operators of the engine that meet the definition of remote stationary RICE in §63.6675 of 40 CFR Part 63 Subpart ZZZZ as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
12. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
13. The owners or operators must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR Part 63 Subpart ZZZZ]
14. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
15. The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
16. The NO_x emission concentration shall not exceed 11.9 ppmvd @ 15% O₂. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
17. The CO emission concentration shall not exceed 40.5 ppmvd @ 15% O₂. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
18. The VOC emission concentration shall not exceed 34.1 ppmvd, as methane, @ 15% O₂. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
19. The SO_x emission concentration shall not exceed 0.0066 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The PM₁₀ emission concentration shall not exceed 0.1 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The ammonia emission concentration shall not exceed 10 ppmvd @ 15% O₂. [District Rule 2201] Federally Enforceable Through Title V Permit
22. The combined fuel usage of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall not exceed 127,279 MMBtu during any one calendar quarter and shall not exceed 424,264 MMBtu during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
23. The permittee shall monitor and record the stack concentration of NO_x (as NO₂), CO, and O₂ at least once every calendar month using a portable emission monitor that meets District specifications [In stack O₂ monitors may be allowed if approved by the APCO]. Monitoring for a given calendar month shall not be required if the engine is not operated during that calendar month, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 72 hours after restarting the engine unless monitoring has been performed during that month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701, 4702 and 40 CFR Part 64] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

24. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, 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 performing the notification and testing required by this condition. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
25. 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 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
26. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
27. Source testing for NOx, CO, VOC and ammonia slip shall be conducted annually. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
28. 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
29. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rules 4701 and 4702]
30. 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 Rules 1081, 4701 and 4702] 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. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
32. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100, where methane and ethane are exempt compounds, shall be excluded from the result of the test. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
33. Source testing for ammonia slip shall be conducted utilizing BAAQMD method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit
34. 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
35. Records of the quarterly and the annual fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

36. 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 15% O₂, (3) make and model of the 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 4701 and 4702] Federally Enforceable Through Title V Permit
37. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information; (1) Total hours of operation; (2) type and quantity of fuel burned (in cubic feet); (3) maintenance or modifications performed; (4) monitoring data; (5) compliance source test results; (6) the purpose of engine operation; (7) any other information necessary to demonstrate compliance with District Rules 4701 and 4702. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
38. The permittee shall maintain monthly records of the following: (1) the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment, and (2) actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR Part 63 Subpart ZZZZ]
39. 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. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 4701 and 4702 and 40 CFR Part 63 Subpart ZZZZ] 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: N-4238-3-3

LEGAL OWNER OR OPERATOR: LODI GAS STORAGE LLC
MAILING ADDRESS: P O BOX 230
ACAMPO, CA 95220-0230

LOCATION: 23265 N STATE ROUTE 99
ACAMPO, CA 95220

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 4,445 BHP CATERPILLAR MODEL G3616 LEAN BURN NATURAL GAS-FIRED IC ENGINE POWERING A COMPRESSOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND A 2-WAY OXIDATION CATALYST. TO DESIGNATE THE ENGINE AS REMOTE STATIONARY ENGINE AND REVISE PERMIT CONDITIONS TO REFLECT THE RECENT CHANGES TO 40 CFR 63 SUBPART ZZZZ REQUIREMENTS.

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. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The engine shall be fired solely on PUC-quality natural gas. [District Rule 4702] Federally Enforceable Through Title V Permit
5. The engine shall be equipped and operated with a properly maintained nonresettable elapsed time meter. [District Rule 4702] Federally Enforceable Through Title V Permit
6. The facility shall install and properly maintain a fuel flow meter, a pressure and temperature transmitter and a gas chromatograph for the purpose of monitoring the fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 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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DAVID WARNER, Director of Permit Services

N-4238-3-3 Nov 7 2013 1:34PM - BOW Joint Inspection NOT Required

7. The engine shall be in full compliance with 40 CFR Part 63 Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR Part 63 Subpart ZZZZ]
8. The engine's oil and filter shall be changed every 2,160 hours of operation or annually, whichever comes first. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
9. The engine's spark plugs shall be inspected every 2,160 hours of operation or annually, whichever comes first, and shall be replaced as necessary. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
10. The engine's hoses and belts shall be inspected every 2,160 hours of operation or annually, whichever comes first, and shall be replaced as necessary. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
11. Owners and operators of the engine that meet the definition of remote stationary RICE in §63.6675 of 40 CFR Part 63 Subpart ZZZZ as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
12. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
13. The owners or operators must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR Part 63 Subpart ZZZZ]
14. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
15. The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
16. The NO_x emission concentration shall not exceed 11.9 ppmvd @ 15% O₂. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
17. The CO emission concentration shall not exceed 40.5 ppmvd @ 15% O₂. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
18. The VOC emission concentration shall not exceed 34.1 ppmvd, as methane, @ 15% O₂. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
19. The SO_x emission concentration shall not exceed 0.0066 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The PM₁₀ emission concentration shall not exceed 0.1 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The ammonia emission concentration shall not exceed 10 ppmvd @ 15% O₂. [District Rule 2201] Federally Enforceable Through Title V Permit
22. The combined fuel usage of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall not exceed 127,279 MMBtu during any one calendar quarter and shall not exceed 424,264 MMBtu during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
23. The permittee shall monitor and record the stack concentration of NO_x (as NO₂), CO, and O₂ at least once every calendar month using a portable emission monitor that meets District specifications [In stack O₂ monitors may be allowed if approved by the APCO] . Monitoring for a given calendar month shall not be required if the engine is not operated during that calendar month, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 72 hours after restarting the engine unless monitoring has been performed during that month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701, 4702 and 40 CFR Part 64] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

24. If either the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, 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 performing the notification and testing required by this condition. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
25. 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 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
26. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
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CONDITIONS CONTINUE ON NEXT PAGE

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39. 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. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 4701 and 4702 and 40 CFR Part 63 Subpart ZZZZ] 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: N-4238-4-3

LEGAL OWNER OR OPERATOR: LODI GAS STORAGE LLC
MAILING ADDRESS: P O BOX 230
ACAMPO, CA 95220-0230

LOCATION: 23265 N STATE ROUTE 99
ACAMPO, CA 95220

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 4,445 BHP CATERPILLAR MODEL G3616 LEAN BURN NATURAL GAS-FIRED IC ENGINE POWERING A COMPRESSOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND A 2-WAY OXIDATION CATALYST. TO DESIGNATE THE ENGINE AS REMOTE STATIONARY ENGINE AND REVISE PERMIT CONDITIONS TO REFLECT THE RECENT CHANGES TO 40 CFR 63 SUBPART ZZZZ REQUIREMENTS.

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. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The engine shall be fired solely on PUC-quality natural gas. [District Rule 4702] Federally Enforceable Through Title V Permit
5. The engine shall be equipped and operated with a properly maintained nonresettable elapsed time meter. [District Rule 4702] Federally Enforceable Through Title V Permit
6. The facility shall install and properly maintain a fuel flow meter, a pressure and temperature transmitter and a gas chromatograph for the purpose of monitoring the fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 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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DAVID WARNER, Director of Permit Services

N-4238-4-3 Nov 7 2013 1:34PM - 60W Joint Inspection NOT Required

7. The engine shall be in full compliance with 40 CFR Part 63 Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR Part 63 Subpart ZZZZ]
8. The engine's oil and filter shall be changed every 2,160 hours of operation or annually, whichever comes first. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
9. The engine's spark plugs shall be inspected every 2,160 hours of operation or annually, whichever comes first, and shall be replaced as necessary. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
10. The engine's hoses and belts shall be inspected every 2,160 hours of operation or annually, whichever comes first, and shall be replaced as necessary. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
11. Owners and operators of the engine that meet the definition of remote stationary RICE in §63.6675 of 40 CFR Part 63 Subpart ZZZZ as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
12. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
13. The owners or operators must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR Part 63 Subpart ZZZZ]
14. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
15. The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
16. The NOx emission concentration shall not exceed 11.9 ppmvd @ 15% O2. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
17. The CO emission concentration shall not exceed 40.5 ppmvd @ 15% O2. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
18. The VOC emission concentration shall not exceed 34.1 ppmvd, as methane, @ 15% O2. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
19. The SOx emission concentration shall not exceed 0.0066 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The PM10 emission concentration shall not exceed 0.1 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The ammonia emission concentration shall not exceed 10 ppmvd @ 15% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
22. The combined fuel usage of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall not exceed 127,279 MMBtu during any one calendar quarter and shall not exceed 424,264 MMBtu during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
23. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar month using a portable emission monitor that meets District specifications [In stack O2 monitors may be allowed if approved by the APCO]. Monitoring for a given calendar month shall not be required if the engine is not operated during that calendar month, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 72 hours after restarting the engine unless monitoring has been performed during that month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701, 4702 and 40 CFR Part 64] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

24. If either the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, 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 performing the notification and testing required by this condition. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
25. 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 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
26. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
27. Source testing for NO_x, CO, VOC and ammonia slip shall be conducted annually. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
28. 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
29. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rules 4701 and 4702]
30. 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 Rules 1081, 4701 and 4702] 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. VOC, NO_x, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
32. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100, where methane and ethane are exempt compounds, shall be excluded from the result of the test. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
33. Source testing for ammonia slip shall be conducted utilizing BAAQMD method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit
34. 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
35. Records of the quarterly and the annual fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4, shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

36. 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 15% O₂, (3) make and model of the 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 4701 and 4702] Federally Enforceable Through Title V Permit
37. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information; (1) Total hours of operation; (2) type and quantity of fuel burned (in cubic feet); (3) maintenance or modifications performed; (4) monitoring data; (5) compliance source test results; (6) the purpose of engine operation; (7) any other information necessary to demonstrate compliance with District Rules 4701 and 4702. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
38. The permittee shall maintain monthly records of the following: (1) the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment, and (2) actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR Part 63 Subpart ZZZZ]
39. 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. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 4701 and 4702 and 40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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APPENDIX II

Permits to Operate (PTO)

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-4238-1-2

EXPIRATION DATE: 06/30/2017

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

4,445 BHP CATERPILLAR MODEL G3616 LEAN BURN NATURAL GAS-FIRED IC ENGINE POWERING A COMPRESSOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND A 2-WAY OXIDATION CATALYST.

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The engine shall be fired solely on PUC-quality natural gas. [District Rule 4702] Federally Enforceable Through Title V Permit
3. The engine shall be equipped and operated with a properly maintained nonresettable elapsed time meter. [District Rule 4702] Federally Enforceable Through Title V Permit
4. The facility shall install and properly maintain a fuel flow meter, a pressure and temperature transmitter and a gas chromatograph for the purpose of monitoring the fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
6. The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
7. The NO_x emission concentration shall not exceed 11.9 ppmvd @ 15% O₂. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
8. The CO emission concentration shall not exceed 40.5 ppmvd @ 15% O₂. [District Rules 2201, 4701 and 4702 and 40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
9. The VOC emission concentration shall not exceed 34.1 ppmvd, as methane, @ 15% O₂. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
10. The SO_x emission concentration shall not exceed 0.0066 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The PM₁₀ emission concentration shall not exceed 0.1 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The ammonia emission concentration shall not exceed 10 ppmvd @ 15% O₂. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The combined fuel usage of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall not exceed 127,279 MMBtu during any one calendar quarter and shall not exceed 424,264 MMBtu during any one calendar year. [District Rule 2201] 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.

14. The permittee shall monitor and record the stack concentration of NO_x (as NO₂), CO, and O₂ at least once every calendar month using a portable emission monitor that meets District specifications [In stack O₂ monitors may be allowed if approved by the APCO]. Monitoring for a given calendar month shall not be required if the engine is not operated during that calendar month, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 72 hours after restarting the engine unless monitoring has been performed during that month. [District Rules 4701, 4702 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
15. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, 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 4701 and 4702] Federally Enforceable Through Title V Permit
16. 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 15% O₂, (3) make and model of the 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 4701 and 4702] Federally Enforceable Through Title V Permit
17. The catalyst inlet temperature shall be maintained between 450 degrees F and 1,350 degrees F. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
18. The pressure drop across the catalyst shall be determined during the initial source test required by 40 CFR Part 63. The pressure drop across the catalyst shall not change by more than 2 inches of water column at 100% load or plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test. The pressure drop shall be determined during the initial source test and shall occur by the 40 CFR Part 63 Subpart ZZZZ compliance deadline of October 19, 2013. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
19. Commencing on the 40 CFR Part 63 Subpart ZZZZ compliance deadline of October 19, 2013, the permittee shall monitor and record the pressure drop across the catalyst system at least once per calendar month. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
20. The permittee shall monitor and record the catalyst system inlet system temperature at least once every 15 minutes. The data shall be reduced to 4 hour rolling averages. [40 CFR Part 63, Subpart ZZZZ and 40 CFR Part 64] Federally Enforceable Through Title V Permit
21. Source testing for NO_x, CO, VOC and ammonia slip shall be conducted annually. [District Rules 2201, 4701 and 4702 and 40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. 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
23. 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 Rules 1081, 4701 and 4702] 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. [District Rules 1081, 4701 and 4702] 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 1081, 4701 and 4702] 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.

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. Source testing for NOx emissions shall be conducted utilizing CARB method 100 or EPA method 7E. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
28. Source testing for CO emissions shall be conducted utilizing CARB method 100 or EPA method 10. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
29. Source testing for VOC emissions shall be conducted utilizing EPA method 25 or EPA method 18, referenced as methane. [District Rules 1081 and 4701] Federally Enforceable Through Title V Permit
30. Source testing for ammonia slip shall be conducted utilizing BAAQMD method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit
31. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
32. Records of the quarterly and the annual fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4, shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
33. The permittee shall maintain an operating log, on a monthly basis, that includes the following information; (1) Total hours of operation; (2) type and quantity of fuel burned (in cubic feet); (3) maintenance or modifications performed; (4) monitoring data; (5) compliance source test results; (6) the purpose of engine operation; (7) any other information necessary to demonstrate compliance with District Rules 4701 and 4702. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
34. All records shall be retained for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rule 4701 and 4702] 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: N-4238-2-2

EXPIRATION DATE: 06/30/2017

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

4,445 BHP CATERPILLAR MODEL G3616 LEAN BURN NATURAL GAS-FIRED IC ENGINE POWERING A COMPRESSOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND A 2-WAY OXIDATION CATALYST.

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The engine shall be fired solely on PUC-quality natural gas. [District Rule 4702] Federally Enforceable Through Title V Permit
3. The engine shall be equipped and operated with a properly maintained nonresettable elapsed time meter. [District Rule 4702] Federally Enforceable Through Title V Permit
4. The facility shall install and properly maintain a fuel flow meter, a pressure and temperature transmitter and a gas chromatograph for the purpose of monitoring the fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
6. The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
7. The NOx emission concentration shall not exceed 11.9 ppmvd @ 15% O2. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
8. The CO emission concentration shall not exceed 40.5 ppmvd @ 15% O2. [District Rules 2201, 4701 and 4702 and 40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
9. The VOC emission concentration shall not exceed 34.1 ppmvd, as methane, @ 15% O2. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
10. The SOx emission concentration shall not exceed 0.0066 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The PM10 emission concentration shall not exceed 0.1 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The ammonia emission concentration shall not exceed 10 ppmvd @ 15% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The combined fuel usage of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall not exceed 127,279 MMBtu during any one calendar quarter and shall not exceed 424,264 MMBtu during any one calendar year. [District Rule 2201] 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.

14. The permittee shall monitor and record the stack concentration of NO_x (as NO₂), CO, and O₂ at least once every calendar month using a portable emission monitor that meets District specifications [In stack O₂ monitors may be allowed if approved by the APCO]. Monitoring for a given calendar month shall not be required if the engine is not operated during that calendar month, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 72 hours after restarting the engine unless monitoring has been performed during that month. [District Rules 4701, 4702 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
15. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, 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 4701 and 4702] Federally Enforceable Through Title V Permit
16. 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 15% O₂, (3) make and model of the 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 4701 and 4702] Federally Enforceable Through Title V Permit
17. The catalyst inlet temperature shall be maintained between 450 degrees F and 1,350 degrees F. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
18. The pressure drop across the catalyst shall be determined during the initial source test required by 40 CFR Part 63. The pressure drop across the catalyst shall not change by more than 2 inches of water column at 100% load or plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test. The pressure drop shall be determined during the initial source test and shall occur by the 40 CFR Part 63 Subpart ZZZZ compliance deadline of October 19, 2013. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
19. Commencing on the 40 CFR Part 63 Subpart ZZZZ compliance deadline of October 19, 2013, the permittee shall monitor and record the pressure drop across the catalyst system at least once per calendar month. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
20. The permittee shall monitor and record the catalyst system inlet system temperature at least once every 15 minutes. The data shall be reduced to 4 hour rolling averages. [40 CFR Part 63, Subpart ZZZZ and 40 CFR Part 64] Federally Enforceable Through Title V Permit
21. Source testing for NO_x, CO, VOC and ammonia slip shall be conducted annually. [District Rules 2201, 4701 and 4702 and 40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. 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
23. 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 Rules 1081, 4701 and 4702] 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. [District Rules 1081, 4701 and 4702] 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 1081, 4701 and 4702] 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.

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. Source testing for NOx emissions shall be conducted utilizing CARB method 100 or EPA method 7E. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
28. Source testing for CO emissions shall be conducted utilizing CARB method 100 or EPA method 10. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
29. Source testing for VOC emissions shall be conducted utilizing EPA method 25 or EPA method 18, referenced as methane. [District Rules 1081 and 4701] Federally Enforceable Through Title V Permit
30. Source testing for ammonia slip shall be conducted utilizing BAAQMD method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit
31. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
32. Records of the quarterly and the annual fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
33. The permittee shall maintain an operating log, on a monthly basis, that includes the following information; (1) Total hours of operation; (2) type and quantity of fuel burned (in cubic feet); (3) maintenance or modifications performed; (4) monitoring data; (5) compliance source test results; (6) the purpose of engine operation; (7) any other information necessary to demonstrate compliance with District Rules 4701 and 4702. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
34. All records shall be retained for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rule 4701 and 4702] 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: N-4238-3-2

EXPIRATION DATE: 06/30/2017

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

4,445 BHP CATERPILLAR MODEL G3616 LEAN BURN NATURAL GAS-FIRED IC ENGINE POWERING A COMPRESSOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND A 2-WAY OXIDATION CATALYST.

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The engine shall be fired solely on PUC-quality natural gas. [District Rule 4702] Federally Enforceable Through Title V Permit
3. The engine shall be equipped and operated with a properly maintained nonresettable elapsed time meter. [District Rule 4702] Federally Enforceable Through Title V Permit
4. The facility shall install and properly maintain a fuel flow meter, a pressure and temperature transmitter and a gas chromatograph for the purpose of monitoring the fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
6. The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
7. The NO_x emission concentration shall not exceed 11.9 ppmvd @ 15% O₂. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
8. The CO emission concentration shall not exceed 40.5 ppmvd @ 15% O₂. [District Rules 2201, 4701 and 4702 and 40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
9. The VOC emission concentration shall not exceed 34.1 ppmvd, as methane, @ 15% O₂. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
10. The SO_x emission concentration shall not exceed 0.0066 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The PM₁₀ emission concentration shall not exceed 0.1 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The ammonia emission concentration shall not exceed 10 ppmvd @ 15% O₂. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The combined fuel usage of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall not exceed 127,279 MMBtu during any one calendar quarter and shall not exceed 424,264 MMBtu during any one calendar year. [District Rule 2201] 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.

14. The permittee shall monitor and record the stack concentration of NO_x (as NO₂), CO, and O₂ at least once every calendar month using a portable emission monitor that meets District specifications [In stack O₂ monitors may be allowed if approved by the APCO]. Monitoring for a given calendar month shall not be required if the engine is not operated during that calendar month, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 72 hours after restarting the engine unless monitoring has been performed during that month. [District Rules 4701, 4702 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
15. If the NO_x or CO concentrations corrected to 15% O₂, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, 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 4701 and 4702] Federally Enforceable Through Title V Permit
16. 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 15% O₂, (3) make and model of the 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 4701 and 4702] Federally Enforceable Through Title V Permit
17. The catalyst inlet temperature shall be maintained between 450 degrees F and 1,350 degrees F. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
18. The pressure drop across the catalyst shall be determined during the initial source test required by 40 CFR Part 63. The pressure drop across the catalyst shall not change by more than 2 inches of water column at 100% load or plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test. The pressure drop shall be determined during the initial source test and shall occur by the 40 CFR Part 63 Subpart ZZZZ compliance deadline of October 19, 2013. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
19. Commencing on the 40 CFR Part 63 Subpart ZZZZ compliance deadline of October 19, 2013, the permittee shall monitor and record the pressure drop across the catalyst system at least once per calendar month. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
20. The permittee shall monitor and record the catalyst system inlet system temperature at least once every 15 minutes. The data shall be reduced to 4 hour rolling averages. [40 CFR Part 63, Subpart ZZZZ and 40 CFR Part 64] Federally Enforceable Through Title V Permit
21. Source testing for NO_x, CO, VOC and ammonia slip shall be conducted annually. [District Rules 2201, 4701 and 4702 and 40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
22. 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
23. 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 Rules 1081, 4701 and 4702] 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. [District Rules 1081, 4701 and 4702] 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 1081, 4701 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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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. Source testing for NOx emissions shall be conducted utilizing CARB method 100 or EPA method 7E. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
28. Source testing for CO emissions shall be conducted utilizing CARB method 100 or EPA method 10. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
29. Source testing for VOC emissions shall be conducted utilizing EPA method 25 or EPA method 18, referenced as methane. [District Rules 1081 and 4701] Federally Enforceable Through Title V Permit
30. Source testing for ammonia slip shall be conducted utilizing BAAQMD method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit
31. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit
32. Records of the quarterly and the annual fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
33. The permittee shall maintain an operating log, on a monthly basis, that includes the following information; (1) Total hours of operation; (2) type and quantity of fuel burned (in cubic feet); (3) maintenance or modifications performed; (4) monitoring data; (5) compliance source test results; (6) the purpose of engine operation; (7) any other information necessary to demonstrate compliance with District Rules 4701 and 4702. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
34. All records shall be retained for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rule 4701 and 4702] Federally Enforceable Through Title V Permit

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-4238-4-2

EXPIRATION DATE: 06/30/2017

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

4,445 BHP CATERPILLAR MODEL G3616 LEAN BURN NATURAL GAS-FIRED IC ENGINE POWERING A COMPRESSOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND A 2-WAY OXIDATION CATALYST.

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

INSPECTION
EXPIRATION DATE: 06/30/2017

LEGAL OWNER OR OPERATOR: LODI GAS STORAGE LLC
MAILING ADDRESS: P O BOX 230
ACAMPO, CA 95220-0230

LOCATION: 23265 N STATE ROUTE 99
ACAMPO, CA 95220

PHYSICAL LOCATION: <PhysicalLocation>

INSPECT PROGRAM PARTICIPANT: NO

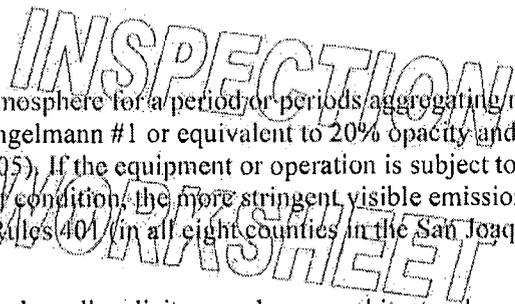
EQUIPMENT DESCRIPTION:
FACILITY-WIDE REQUIREMENTS

CONDITIONS

1. {4362} The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
2. {4363} The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
3. {4364} The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
4. {4365} Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
5. {4366} The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.9.1 and 9.13.1] Federally Enforceable Through Title V Permit
6. {4367} A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
7. {4368} Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
8. {4369} The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit

INSPECTION
WORKSHEET

9. {4370} The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. {4371} The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
11. {4372} Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
12. {4373} If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
13. {4374} It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
14. {4375} The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
15. {4376} The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
16. {4377} The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
17. {4378} The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
18. {4379} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
19. {4380} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
20. {4381} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
21. {4382} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit



22. {4383} No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
23. {4384} No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
24. {4385} All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
25. {4386} The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
26. {4387} With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
27. {4388} If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
28. {4389} If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
29. {4390} Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit
30. {4391} Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit
31. {4392} An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit
32. {4393} Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit
33. {4394} Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit
34. {4395} Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit

INSPECTION
WORKSHEET

35. {4396} Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation) [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit
36. {4397} The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
37. {4398} The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
38. {4399} When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
39. {4400} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
40. {4401} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. On September 30, 2012, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report are based upon this initial permit issuance date, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit

APPENDIX III

PSD Major Source Determination

PSD Major Source Determination:

CO₂ emissions from the combustion of fossil fuel:

As indicated in Section VII.2 of this document, this stationary source has the following fossil fuel combustion equipment.

Permit Unit	Equipment
N-4238-1-2	4,445 bhp natural gas (NG) fired IC engine
N-4238-2-2	4,445 bhp NG-fired IC engine
N-4238-3-2	4,445 bhp NG -fired IC engine
N-4238-4-2	4,445 bhp NG -fired IC engine
N-4238-5-2	10 MMBtu/hr NG -fired thermal oxidizer (shared between N-4238-5 & N-4238-6)
N-4238-6-2	
N-4238-7-2	1,508 bhp NG -fired emergency standby IC engine powers electrical generator
N-4238-8-1	1,250 MMBtu/hr maintenance flare
N-4238-9-1	5,000 MMBtu/hr emergency flare

The emission factors and global warming potentials (GWP) are taken from the California Climate Change Action Registry (CCAR), Version 3.1, January 2009, Appendix C, Tables C1, C.3, and C.6.

GHG	Emission Factors & GWP (SAR, 1996)	Source
CO ₂	116.7 lb/MMBtu; (1 lb-CO ₂ e/lb-CO ₂)	CCAR, Appendix C, Tables C1 & C3
CH ₄	0.011 lb/MMBtu; (21 lb-CO ₂ e/lb-CH ₄)	CCAR, Appendix C, Table C1 & C7
N ₂ O	0.00022 lb/MMBtu; (310 lb-CO ₂ e/lb-N ₂ O)	CCAR, Appendix C, Table C1 & C6

The CO₂e emission from these natural gas fired units is calculated as follows:

$$PE\ CO_2e = \text{Total Annual Heat Input} \times \text{Emissions factors}$$

The heat input rating, annual operating hour, and annual heat input values are taken from application package and engineering evaluation under projects N-990876, and current permits.

The total annual heat input for all natural gas fire units in this facility is calculated as follows:

Permit Unit	Heat I/P Rating (MMBtu/hr)	Annual Operating hour (hr/year)	Annual Heat Input (MMBtu/year)
N-4238-1-2	30.27 ²	N/A	424,264
N-4238-2-2	30.27	N/A	
N-4238-3-2	30.27	N/A	
N-4238-4-2	30.27	N/A	
N-4238-5-2	10.0	8,760	87,600
N-4238-6-2	10.0	8,760	
N-4238-7-2	13.9 ³	100	1,390

² Per engineering evaluation N-990876.

³ Per application package project N-990876. Heat I/P rating = 13,911 x 1,000 Btu/hr x 10⁻⁶ = 13.9 MMBtu/hr.

N-4238-8-1	15.49 ⁴	N/A	2,497 ⁵
N-4238-9-1	15.49 ⁵	200	3,097 ⁶
Total	185.96 ⁷		518,848

The CO₂e emission from these natural gas fired units is calculated as follows:

$$\text{PE CO}_2\text{e} = \{[(518,848 \text{ MMBtu/year} \times 116.7 \text{ lb-CO}_2\text{/MMBtu}) + (518,848 \text{ MMBtu/year} \times 0.011 \text{ lb-CH}_4\text{/MMBtu} \times 21 \text{ lb-CO}_2\text{e/lb-CH}_4) + (518,848 \text{ MMBtu/year} \times 0.00022 \text{ lb-N}_2\text{O/MMBtu} \times 310 \text{ lb-CO}_2\text{e/lb-N}_2\text{O})] + 2,000 \text{ lb/ton}\}$$

PE CO₂e = **30,352 tons-CO₂e/year**

The facility evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21(b)(1)(i). Therefore, the following PSD Major Source thresholds are applicable. For combustion sources, all PM is equal to PM10.

PSD Major Source Determination (tons/year)							
	NO2	VOC	SO2	CO	PM	PM10	CO2e
Estimated Facility PE before Project Increase	13.9	11.2	0.6	35.3	7.3	7.3	30,352
PSD Major Source Thresholds	250	250	250	250	250	250	100,000
PSD Major Source ? (Y/N)	N	N	N	N	N	N	N

As shown above, the facility is not an existing major source for PSD for any pollutant. Therefore, the facility is not an existing major source for PSD.

⁴ Per current permit, the daily natural gas usage is limited to 371,645 scf, equivalent to 15.49 MMBtu/hr [(371,645 scf/day x 1,000 Btu/scf x 10⁻⁶ + 24 hr/day = 15.49 MMBtu/hr]

⁵ Per current permit, the annual heat I/P = 624,175 scf/qtr x 4 qtr/yr x 1,000 Btu/scf x 10⁻⁶ = 2,496.7 MMBtu/yr

⁶ Per N-990876, the annual heat I/P = 371,645 scf/24-hr x 200 hr/yr x 1,000 Btu/scf x 10⁻⁶ = 3,097 MMBtu/yr

⁷ The total heat input rating for all fossil fuel fired units at this facility is calculated to about 186 MMBtu/hr, which is less than the 250 MMBtu/hr threshold.

APPENDIX IV

HAP Emissions Calculations

HAP Emission Calculations

The following table shows the HAP emission factors for natural gas-fired IC engine equipped with non-selective catalytic reduction system. These HAP emission factors were obtained from the California Air Toxic Emission Factors (CATEF) database on 5/9/2011).

Hazardous Air Pollutant Emission Factors	
Compound	Emissions Factor (lb/MMCF)
Benzene	0.138
Formaldehyde	0.140
Total	0.278

The facility-wide HAP emissions will be calculated using the above factors and the total facility-fuel usage.

As calculated in Appendix III of this document, the total annual fuel consumption for all units is equal to 518,848 MMBtu. Using a natural gas higher heating value of 1000 Btu/scf, the annual fuel consumption for all units is:

$$\text{Annual Fuel Consumption} = 518,848 \times 10^6 \text{ Btu/year} \times \text{scf}/1000 \text{ Btu} \times \text{MMCF}/10^6 \text{ scf}$$

$$\text{Annual Fuel Consumption} = 518.8 \text{ MMCF/year}$$

The facility-wide HAP emissions can be calculated using the combined fuel usage of 518.8 MMCF/year multiplied by the emissions factors presented earlier.

Hazardous Air Pollutant Emission Factors		
Compound	Emissions Factor (lb/MMCF)	HAP Emissions (lb/year)
Benzene	0.138	71.6
Formaldehyde	0.140	72.6
Total	0.278	145.2

A facility is considered to be a major HAP source if the HAP emissions for any single HAP is greater than 10 tons/year (20,000 lb/year), or if the total combined HAP emissions is greater than 25 tons/year (50,000 lb/year). As demonstrated in the previous table, HAP emissions from this facility are much less than 20,000 lb/year for any single HAP and 50,000 lb/year for total combined HAP's. Therefore, this facility is considered an area source for HAP emissions.

APPENDIX V

Compliance Certification

San Joaquin Valley Unified Air Pollution Control District

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

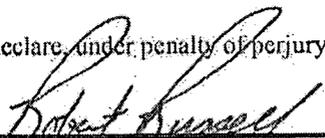
- SIGNIFICANT PERMIT MODIFICATION ADMINISTRATIVE
 MINOR PERMIT MODIFICATION AMENDMENT

COMPANY NAME: Lodi Gas Storage LLC	FACILITY ID: N-4238
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: Same as above	
3. Agent to the Owner: N/A	

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 forgoing is correct and true:



 Signature of Responsible Official

 Date

 Name of Responsible Official (please print)

 Vice President, Field Operations

 Title of Responsible Official (please print)

APPENDIX VI

Remote Stationary RICE Initial Evaluation

June 26, 2013

Air Permitting Services
San Joaquin Valley Unified Air Pollution Control District
Northern Regional Office
4800 Enterprise Way
Modesto, CA 95356-8718



1801 J Street
Sacramento CA 95811
Tel: (916) 444-6666
Fax: (916) 444-8373

Ann Arbor MI
Tel: (734) 761-6666
Fax: (734) 761-6755

RECEIVED

Subject: Application to Modify the Title V Permit
Lodi Gas Storage LLC (Facility ID No. N-4238)

JUN 27 2013

SJVAPCD
NORTHERN REGION

To Whom It May Concern:

On behalf of Lodi Gas Storage LLC (LGS), Sierra Research is pleased to submit the enclosed application to modify the Title V permit for the Lodi Gas Storage facility (Facility ID No. N-4238) in Acampo, California. This Title V permit modification is necessary to remove some obsolete permit conditions associated with the Reciprocating Internal Combustion Engine (RICE) NESHAP regulation (40 CFR 63 Subpart ZZZZ). The requested permit changes are discussed below.

Background - Reciprocating Internal Combustion Engine (RICE) NESHAP (40 CFR 63 Subpart ZZZZ)

On January 30, 2013, the U.S. Environmental Protection Agency (EPA) finalized changes to Subpart ZZZZ that eliminated the CO emission limit (47 ppmvd @15% O₂), periodic CO emission source testing, continuous parametric monitoring system (CPMS) requirements, and semi-annual compliance reporting for "remote stationary RICEs." Under this revised final rule, for "remote stationary RICEs" all emissions/monitoring requirements were replaced with maintenance practices that require the following:

- Changing the engine oil and filter every 2,160 hours of operation or annually, whichever comes first;¹
- Inspecting the spark plugs every 2,160 hours of operation or annually, whichever comes first, and replacing as needed; and
- Inspecting the hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replacing as needed.

The definition of a "remote stationary RICE," as it pertains to the LGS's compressor engines, is "a stationary RICE located on a pipeline segment with 10 or fewer buildings

¹ In lieu of changing the engine oil at this frequency, engine owners/operators may utilize an oil analysis program to extend the life of the oil as described in 40 CFR 63.6625(i).

intended for human occupancy and no building with four or more stories within 220 yards (200 meters) on either side of the centerline of any continuous one-mile length of pipeline.” Each separate dwelling unit of a multi-unit building is counted as a separate building. Additionally, no building or other well-defined area (such as a playground or recreational area) that is occupied by 20 or more persons on at least five days per week for 10 weeks in any 12-month period may lie within 100 yards (91 meters) of the pipeline segment.

As shown in the attached Figures 1 and 2 (see Attachment A), the LGS facility meets this “remote stationary RICE” definition with a total of eight buildings identified within two mile-long pipeline segments on either side of the compressor station—with a maximum of five buildings lying on any continuous one-mile segment in between. In addition, no buildings or other well-defined areas that would be occupied by 20 persons for five days a week and 10 weeks per year were identified within 100 yards of the pipeline segment. This “remote stationary RICE” evaluation will be reviewed prior to the Subpart ZZZZ initial compliance date of October 19, 2013. Furthermore, the evaluation must be repeated every year thereafter, and records of the evaluations maintained for a five-year period. If any future evaluation indicates that the compressor engines are no longer remote stationary RICES, LGS engines must comply with the requirements for existing 4SLB SI engines within one year of the evaluation.

A comprehensive summary of Subpart ZZZZ’s new requirements applicable to LGS’s compressor engines is included in the attached Table 1 (see Attachment A).

Proposed Modifications to the Title V Permit

As discussed above, recent changes to Subpart ZZZZ have eliminated the CO emission limit (47 ppmvd @15% O₂), periodic CO emission source testing, CPMS requirements, and semi-annual compliance reporting requirement for the LGS compressor engines (PTO Numbers: N-4238-1-2, N-4238-2-2, N-4238-3-2, and N-4238-4-2). Because several of these Subpart ZZZZ requirements were included in the current Title V permit issued to the LGS facility, we are requesting that these permit conditions be removed from the Title V permit. The following is a list of the proposed changes to the Title V permit:

- Permit Condition 8: Remove reference to 40 CFR Part 63, Subpart ZZZZ.
- Permit Condition 14: Remove reference to 40 CFR Part 63, Subpart ZZZZ.
- Permit Condition 17: Remove this permit condition because it is a 40 CFR Part 63, Subpart ZZZZ requirement that is no longer applicable to the LGS compressor engines.
- Permit Condition 18: Remove this permit condition because it is a 40 CFR Part 63, Subpart ZZZZ requirement that is no longer applicable to the LGS compressor engines.
- Permit Condition 19: Remove this permit condition because it is a 40 CFR Part 63, Subpart ZZZZ requirement that is no longer applicable to the LGS compressor engines.
- Permit Condition 20: Remove this permit condition because it is a 40 CFR Part 63, Subpart ZZZZ requirement that is no longer applicable to the LGS compressor engines.

- Permit Condition 21: Remove reference to 40 CFR Part 63, Subpart ZZZZ in this permit condition.

Enclosed as Attachment B are the San Joaquin Valley APCD permit application forms for this requested Title V permit modification. Please note that on the advice of the San Joaquin Valley APCD we have marked this as a significant Title V modification. However, since the requested permit changes are the removal of obsolete permit conditions, this permitting action may qualify as a minor Title V modification. Also enclosed is a permit application filing fee check of \$284 (\$71 per engine) payable to the San Joaquin Valley APCD.

If you have any questions regarding this submittal, please call me at (916) 444-6666 or Greg Clark of Lodi Gas Storage LLC at (209) 368-9277 x21.

Sincerely,



Tom W. Andrews
Principal Engineer

Enclosure

cc: Greg Clark, Lodi Gas Storage

Attachment A

40 CFR 63, Subpart ZZZZ Requirements

Figure 1
Lodi Gas Storage Facility – Pipeline Location

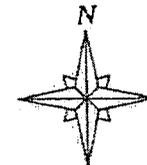
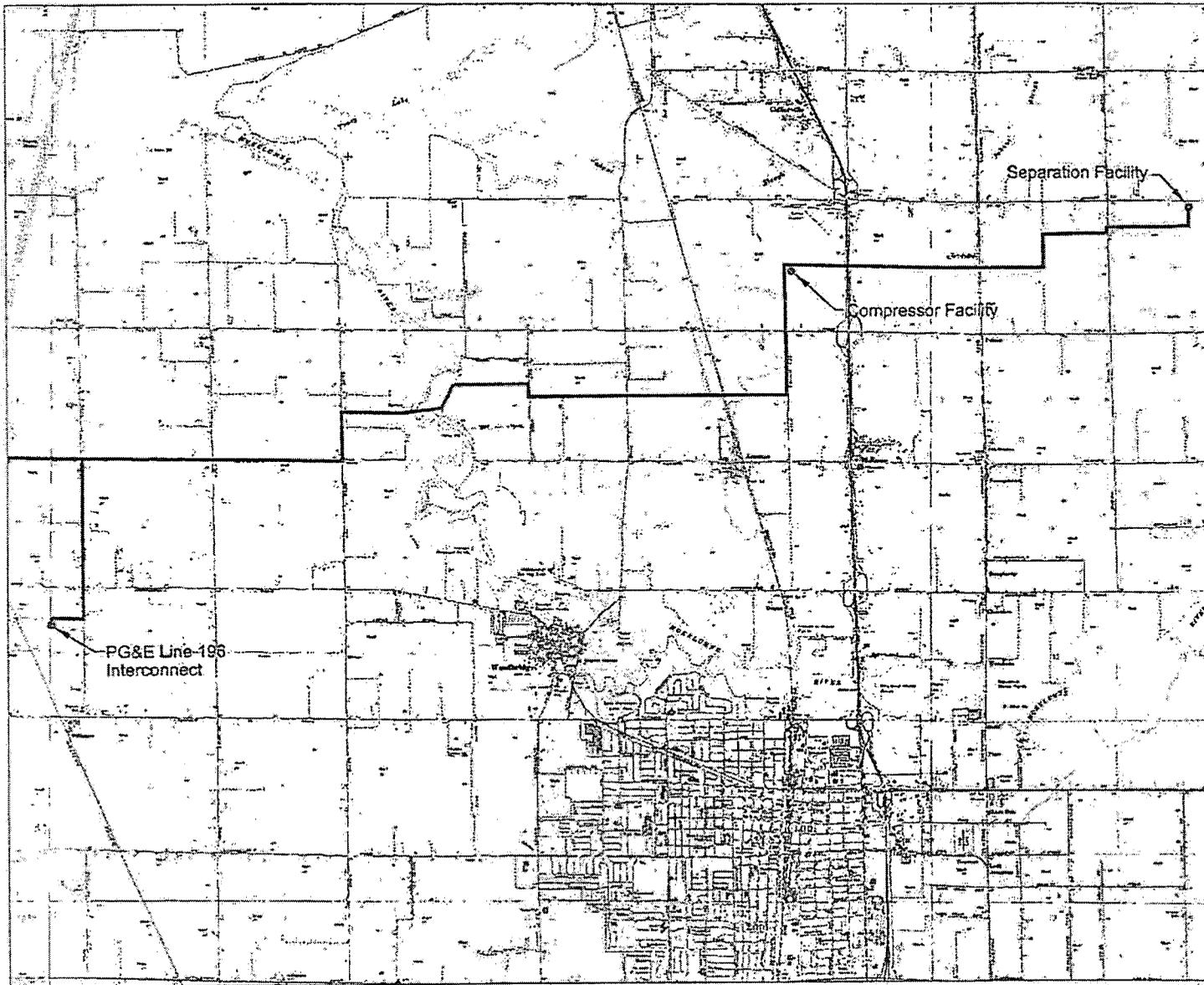


FIGURE 2-14a
Existing Pipeline Corridor Alternative

Scale: 1"=4000'

Base map source: USGS 7.5' quadrangles Rio Vista, Jersey Island, Isleton, Bouldin Island, Terminus, Thornton, Lodi South, Lodi North, Waterloo, and Lockeford

Figure 2
Lodi Gas Storage Facility – Remote Stationary RICE Evaluation

