

217/785-1705

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT -- NESHAP SOURCE -- RENEWAL

PERMITTEE

Carus Chemical Company  
Attn: Chithambarathanu Pillai  
1500 Eighth Street  
LaSalle, Illinois 61301-3500

<u>Application No.:</u> 72100536	<u>I.D. No.:</u> 099030AAB
<u>Applicant's Designation:</u>	<u>Date Received:</u> February 23, 2004
<u>Subject:</u> Inorganic Chemical Manufacturing Plant	
<u>Date Issued:</u> December 9, 2013	<u>Expiration Date:</u> December 9, 2023
<u>Location:</u> 1500 Eighth Street, LaSalle, LaSalle County	

This Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of:

Cairox Plant (Permanganate Process):

Surge Hopper #1 (PACK-BIN-260) Controlled by Filter Bin (PACK-DCL-005);  
Surge Hopper #2 (PACK-BIN-261) Controlled by Filter Bin (PACK-DCL-006);  
Weigh Hopper (PACK-BIN-913) Controlled by Dust Collector (PACK-DCL-007);  
Blender Transporter (PACK-COV-015) Controlled by Dust Collector (PACK-DCL-004);  
South Silo (PACK-BIN-910) (Pilot Plant) Controlled by Dust Collector (PACK-DCL-011);  
South Center Silo (PACK-BIN-909) Controlled by Dust Collector (PACK-DCL-011);  
North Center Silo (PACK-BIN-908) Controlled by Dust Collector (PACK-DCL-009);  
North Silo (PACK-BIN-907) Controlled by Dust Collector (PACK-DCL-008);  
Recycle TK (PACK-BIN-916) Controlled by Dust Collector (PACK-DCL-015);  
Cycle Bin (PACK-BIN-905) Controlled by Dust Collector (PACK-DCL-016);  
Bulk FF Bin & Bulk Tech (PACK-BIN-903) controlled by Dust Collector (PACK-DCL-013);  
Packaging Silo (PACK-BIN-802) Controlled by Dust Collector (PACK-DCL-014);  
Evaporator Marley Cooling Towers - Cell 1 (EVAP-COO-001)  
Evaporator Marley Cooling Towers - Cell 2 (EVAP-COO-002)  
North Ore Storage Bin (ORES-BIN-007) Controlled by Dust Collector (ORES-DCL-001)  
South Ore Storage Bin (ORES-BIN-008) Controlled By Dust Collector (ORES-DCL-002)  
Cairox Ore Use Bin #1 (ORES-BIN-001) Controlled by Dust Collector (ORES-DCL-003)  
Cairox Ore Use Bin #2 (ORES-BIN-002) Controlled by Dust Collector (ORES-DCL-004)  
Cairox Ore Use Bin #3 (ORES-BIN-003) Controlled by Dust Collector (ORES-DCL-005)  
#1 Oxidizer Cooling/Condensing Tower (OXID-COO-001) Controlled by Dust Collector (ORES-DCL-001)  
#2 Oxidizer Cooling/Condensing Tower (OXID-COO-002) Controlled by Dust Collector (ORES-DCL-001)

Cairox Finished Product Dryer Controlled by Old Schneible Wet Scrubber & Cyclone (PACK-DCL-001)  
KOH Surge Tank (CONC-TNK-001)  
Cairox Packaging & Blending Dust Pickups (PACK-BIN-902) Controlled by New Schneible Wet Scrubber & Cyclone (PACK-DCL-003)  
Cairox Bulk Storage Tank & Loading Station (PACK-BIN-903) Controlled by New Schneible Wet Scrubber & Cyclone (PACK-DCL-003)  
#3 Oxidizer Cooling/Condensing Tower (OXID-COO-003)  
Pneumatic Transfer of Lime to storage Bin from Tank Truck (LIME-BIN-001) Controlled by Baghouse (LIME-DCL-001)  
Lime Slaker Tank (LIME-TNK-001)  
Screw Conveyor #1 for Lime Slaker Tank (LIME-COV-001)  
Screw Conveyor #2 for Lime Slaker Tank (LIME-COV-002)  
Weigh Hopper for Lime Slaker Tank (LIME-BIN-002)  
KOH Concentrator Tank (CONC-TNK-004)  
Free Flow Additive Transport System (PACK-BIN-906) Controlled by Cyclone and Baghouse (PACK-CYC-003/004 & PACK-DCL-019)  
Cairox Make-Up Liquor Storage Tank (OILS-TNK-004)  
#1 Oxidizer Marley Cooling Tower (OXID-COO-004)  
#2 Oxidizer Marley Cooling Tower (OXID-COO-005)  
#3 Oxidizer Marley Cooling Tower (OXID-COO-006)  
Cairox Plant (Specialty Products Process)  
Vacuum Dryer (USPS-DRY-001) Controlled by Condenser  
Sievers (USPS-SIV-002 and USPS-SIV-003) Controlled by USP Wet Dust Collector (USPS-DCL-001)  
Nugget Siever (USPS-SIV-001) Controlled by USP Wet Dust Collector (USPS-DCL-001)  
Pilot Plant (Carulite Process)  
New Acid Wash Tank (PIL-RE-250) Controlled by 400 Scrubber (PIL-SR-9432)  
South Oxidizer (PIL-RE-537) Controlled by 400 Scrubber (PIL-SR-9432)  
East Cooker (PIL-RE-553) Controlled by 400 Scrubber (PIL-SR-9432)  
200 Centrifuge (PIL-CE-265) Controlled by 400 Scrubber (PIL-SR-9432)  
Wyssmont Dryer Discharge Bin (PIL-BI-338) Controlled by Dust Collector (PIL-DC-310)  
300 Building South Carulite Product Storage Bin (PIL-BI-344) Controlled by Dust Collector (PIL-DC-310)  
Wyssmont Dryer Feed Bin (PIL-BI-351) Controlled by Dust Collector (PIL-DC-310)  
300 Building North Product Storage Bin (PIL-BI-353) Controlled by Dust Collector (PIL-DC-310)  
300 Siever (PIL-SV-318) Controlled by Dust Collector (PIL-DC-310)  
300 Elevator (PIL-EL-320) Controlled by Dust Collector (PIL-DC-310)  
Pilot Plant 1300 Filter Press Discharge Elevator Dust (PIL-CV-1300)  
1300 Filter Press Screw Conveyor Dust (PIL-EL-1300) Controlled by Fabric Filter Baghouse PIL-DC-1300  
Pilot Plant Carulite Wyssmont Dryer (PIL-DR-337) Controlled by Dust Collector (PIL-DC-385)  
Conveyors, Material Storage Bins, Dyer/Calciner, Dry Product Storage Bin, and Finished Product Packaging.  
300 Blender (PIL-BL-301) Controlled by Jet Pump (PIL-TA-387)  
1300 Blender (PIL-BLND-1320) Controlled by Jet Pump (PIL-TA-1308)  
Pilot Plant (Sodium Permanganate Process)

Pilot Plant Bulk Bin, (PIL-BI-450) Controlled by Pilot Plant Bin Filter (PIL-DC-451)  
600 Filtrate Tank (PIL-TA-612) Controlled by 400 Scrubber (PIL-SR-9432)  
North Oxidizer (PIL-RE-547) Controlled by 400 Scrubber (PIL-SR-9432)  
RE 730 Crystallizer (PIL-RE-730) Controlled by 400 Scrubber (PIL-SR-9432)  
50% Na Storage tank (PIL-TA-720) Controlled by 400 Scrubber (PIL-SR-9432)  
RE 750 Crystallizer (PIL-RE-750) Controlled by 400 Scrubber (PIL-SR-9432)  
500 Dilution Tank (PIL-TA-570) Controlled by 400 Scrubber (PIL-SR-9432)  
600 Wash Tank (PIL-TA-613) Controlled by 400 Scrubber (PIL-SR-9432)  
600 Acid Wash (PIL-TA-614) Tank Controlled by 400 Scrubber (PIL-SR-9432)  
200 Oxidizer (PIL-RE-275) Controlled by Pilot Plant De-Mister (PIL-DE-001)  
Sodium Permanganate Concentrator (PIL-RE-272) Controlled by Pilot Plant De-Mister (PIL-DE-001)  
Reactor (PIL-TA-267 200) Controlled by Pilot Plant De-Mister (PIL-DE-002)  
Phosphate Plant  
Phosphate Mixing Tank (PIL-RE-1101)  
TPC Mixing Tank (PIL-RE-1119)  
Phosphate Blender (PIL-BL-1100) Controlled by Dust Collector (PIL-DC-1101)  
Zinc Mix Tank (PIL-RE-1121) Controlled by scrubber (PIL-SR-9110)  
Two Natural Gas Fired Boilers (Boiler #3 - 93 mmBtu/hour and Boiler #4 - 135 mmBtu/hour); and  
Space Heaters - 1 mmBtu/hour (each)

pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year for Carbon Monoxide (CO), Nitrogen Oxides (NO<sub>x</sub>), and Particulate Matter less than 10 microns (PM<sub>10</sub>), 10 tons/year for any single Hazardous Air Pollutant (HAP) and 25 tons/year for any combination of such HAPs, and 100,000 tons of Carbon Dioxide equivalent (CO<sub>2</sub>e) per year for Green House Gases (GHG)). As a result, the source is excluded from the requirements to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit are described in Attachment A.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permit(s) for this location.
- 2a. The chemical manufacturing process units (CMPU) at this source are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Chemical Manufacturing Area Sources, 40 CFR 63 Subparts A and VVVVVV. The Illinois EPA is administering the NESHAP in Illinois on behalf of the United States EPA under a delegation agreement. Pursuant to 40 CFR 63.11494(a), except as specified in 40 CFR 63.11494(c), you are subject to 40 CFR 63 Subpart VVVVVV if you own or operate a chemical manufacturing process unit (CMPU) that meets the conditions specified in 40 CFR 63.11494(a) (1) and (2).

- i. The CMPU is located at an area source of HAP emissions.
- ii. HAP listed in Table 1 to 40 CFR 63 Subpart VVVVVV (Table 1 HAP) are present in the CMPU, as specified in 40 CFR 63.11494(a)(2)(i), (ii), (iii), or (iv).
  - A. The CMPU uses as feedstock, any material that contains quinoline, manganese, and/or trivalent chromium at an individual concentration greater than 1.0 percent by weight, or any other Table 1 HAP at an individual concentration greater than 0.1 percent by weight. To determine the Table 1 HAP content of feedstocks, you may rely on formulation data provided by the manufacturer or supplier, such as the Material Safety Data Sheet (MSDS) for the material. If the concentration in an MSDS is presented as a range, use the upper bound of the range.
  - B. Quinoline is generated as byproduct and is present in the CMPU in any liquid stream (process or waste) at a concentration greater than 1.0 percent by weight.
  - C. Hydrazine and/or Table 1 organic HAP other than quinoline are generated as byproduct and are present in the CMPU in any liquid stream (process or waste), continuous process vent, or batch process vent at an individual concentration greater than 0.1 percent by weight.
  - D. Hydrazine or any Table 1 HAP is produced as a product of the CMPU.
- b. Pursuant to 40 CFR 63.11494(d)(1), 40 CFR 63 Subpart VVVVVV applies to each new or existing affected source. The affected source is the facility-wide collection of CMPUs and each heat exchange system and wastewater system associated with a CMPU that meets the criteria specified in 40 CFR 63.11494(a) and (b). A CMPU using only Table 1 organic HAP is required to control only total CAA section 112(b) organic HAP. A CMPU using only Table 1 metal HAP is required to control only total CAA section 112(b) metal HAP in accordance with 40 CFR 63.11495 and, if applicable, 40 CFR 63.11496(f). An affected source is an existing source if you commenced construction or reconstruction of the affected source before October 6, 2008.
- c. Pursuant to 40 CFR 63.11494(e), any area source that installed a federally-enforceable control device on an affected CMPU is required to obtain a permit under 40 CFR part 70 or 40 CFR part 71 if the control device on the affected CMPU is necessary to maintain the source's emissions at area source levels. For new and existing sources subject to this rule on December 21, 2012 and subject to Title V as a result of this rule, a complete Title V permit application must be submitted no later than December 21, 2013. New and existing sources that become subject to this rule after December 21, 2012 must submit a complete

Title V permit application no later than 12 months after becoming subject to this rule if the source is subject to Title V as a result of this rule. Otherwise, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not otherwise required by law to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a). Notwithstanding the previous sentence, you must continue to comply with the provisions of 40 CFR 63 Subpart VVVVVV.

- d. Pursuant to 40 CFR 63.11494(f), if you own or operate an existing affected source, you must achieve compliance with the applicable provisions in 40 CFR 63 Subpart VVVVVV no later than March 21, 2013.
- e. Pursuant to 40 CFR 63.11496(f), you must comply with the requirements in 40 CFR 63.11496(f) (1) and (2) for metal HAP emissions from each CMPU using Table 1 metal HAP. If the collective uncontrolled metal HAP emissions from all metal HAP process vents from a CMPU are equal to or greater than 400 lbs/year, then you must also comply with the emission limits and other requirements in Table 4 to 40 CFR 63 Subpart VVVVVV and in 40 CFR 63.11496(f) (3), (4), or (5). The requirements of 40 CFR 63.11496(f) do not apply to metal HAP process vents from CMPU containing only metal HAP that are in a liquid solution or other form that will not result in particulate emissions of metal HAP (e.g., metal HAP that is in ingot, paste, slurry, or moist pellet form or other form).

Table 4 to Subpart VVVVVV of Part 63—Emission Limits and Compliance Requirements for Metal HAP Process Vents

As required in 40 CFR 63.11496(f), you must comply with the requirements for metal HAP process vents as shown in the following table.

For * * *	You must * * *	Except * * *
Each CMPU with total metal HAP emissions ≥400 lbs/year	Reduce collective uncontrolled emissions of total metal HAP emissions by ≥95 percent by weight by routing emissions from a sufficient number of the metal process vents through a closed-vent system to any combination of control devices, according to the requirements of 40 CFR 63.11496(f) (3), (4), or (5)	Not applicable

- i. You must determine the sum of metal HAP emissions from all metal HAP process vents within a CMPU subject to 40 CFR 63 Subpart VVVVVV, except you are not required to determine the annual emissions if you control the metal HAP process vents within a CMPU in accordance with Table 4 to 40 CFR 63 Subpart VVVVVV or if you determine your total metal HAP usage in the process unit is less than 400 lbs/year. To determine the mass emission rate you may use process knowledge, engineering assessment, or test data. You must keep records of the emissions calculations.
- ii. If your current estimate is that total uncontrolled metal HAP emissions from a CMPU subject to 40 CFR 63 Subpart VVVVVV are

less than 400 lbs/year, then you must keep records of either the number of batches operated per month (batch vents) or the process operating hours (continuous vents). Also, you must reevaluate your total emissions before you make any process or operational change that affects emissions of metal HAP. If projected emissions increase to 400 lbs/year or more, then you must be in compliance with one of the options for metal HAP process vents in Table 4 to 40 CFR 63 Subpart VVVVVV upon initiating operation under the new operating conditions. You must keep records of all recalculated emissions determinations.

iii. If you have an existing source subject to the HAP metals emission limits specified in Table 4 to 40 CFR 63 Subpart VVVVVV, you must comply with the initial compliance and monitoring requirements in 40 CFR 63.11496(f)(3)(i) through (iii). You must keep records of monitoring results to demonstrate continuous compliance.

A. You must prepare a monitoring plan containing the information in 40 CFR 63.11496(f)(3)(i)(A) through (E). The plan must be maintained on-site and be available on request. You must operate and maintain the control device according to a site-specific monitoring plan at all times.

I. A description of the device;

II. Results of a performance test or engineering assessment conducted in accordance with 40 CFR 63.11496(f)(3)(ii) verifying the performance of the device for reducing HAP metals or particulate matter (PM) to the levels required by 40 CFR 63 Subpart VVVVVV;

III. Operation and maintenance plan for the control device (including a preventative maintenance schedule consistent with the manufacturer's instructions for routine and long-term maintenance) and continuous monitoring system (CMS).

IV. A list of operating parameters that will be monitored to maintain continuous compliance with the applicable emissions limits; and

V. Operating parameter limits based on either monitoring data collected during the performance test or established in the engineering assessment.

B. You must conduct a performance test or an engineering assessment for each CPU subject to a HAP metals emissions limit in Table 4 to 40 CFR 63 Subpart VVVVVV and report the results in your Notification of Compliance Status (NOCS). Each performance test or engineering assessment must be conducted under representative operating conditions, and

sampling for each performance test must be conducted at both the inlet and outlet of the control device. Upon request, you shall make available to the Illinois EPA or USEPA such records as may be necessary to determine the conditions of performance tests. If you own or operate an existing affected source, you are not required to conduct a performance test if a prior performance test was conducted within the 5 years prior to the effective date using the same methods specified in 40 CFR 63.11496(f)(3)(iii), and, either no process changes have been made since the test, or, if you can demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process changes.

- C. If you elect to conduct a performance test, it must be conducted according to requirements in 40 CFR 63.11410(j)(1). As an alternative to conducting a performance test using Method 5 or 5D to determine the concentration of PM, you may use Method 29 in 40 CFR Part 60, Appendix A-8 to determine the concentration of HAP metals. You have demonstrated initial compliance if the overall reduction of either HAP metals or total PM is equal to or greater than 95 percent.
- iv. If you have a new source using a baghouse as a control device, you must install, operate, and maintain a bag leak detection system on all baghouses used to comply with the HAP metals emissions limit in Table 4 to 40 CFR 63 Subpart VVVVVV. You must comply with the testing, monitoring, and recordkeeping requirements in 40 CFR 63.11410(g), (i), and (j)(1), except you are not required to submit the monitoring plan required by 40 CFR 63.11410(g)(2) for approval.
- v. If you have a new source using a control device other than a baghouse to comply with the HAP metals emission limits in Table 4 to 40 CFR 63 Subpart VVVVVV, you must comply with the initial compliance and monitoring requirements in 40 CFR 63.11496(f)(3)(i) through (iii).
- 3a. Pursuant to 35 Ill. Adm. Code 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to 35 Ill. Adm. Code 212.122.
- b. Pursuant to 35 Ill. Adm. Code 212.123(b), the emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 meter (1000 foot) radius from the center point of any other such

emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.

- c. Pursuant to 35 Ill. Adm. Code 212.206, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period to exceed 0.15 kg of particulate matter per MW-hour of actual heat input from any fuel combustion emission unit using liquid fuel exclusively (0.10 lbs/mmBtu).
- d. Pursuant to 35 Ill. Adm. Code 212.301, no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.
- e. Pursuant to 35 Ill. Adm. Code 212.321(a), except as further provided in 35 Ill. Adm. Code Part 212, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 Ill. Adm. Code 212.321(c).
- 4a. Pursuant to 35 Ill. Adm. Code 214.122(b)(2), no person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any new fuel combustion source with actual heat input smaller than, or equal to, 73.2 MW (250 mmBtu/hour), burning liquid fuel exclusively to exceed 0.46 kg of sulfur dioxide per MW-hour of actual heat input when distillate fuel oil is burned (0.3 lbs/mmBtu).
- b. Pursuant to 35 Ill. Adm. Code 214.301, except as further provided by 35 Ill. Adm. Code Part 214, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to exceed 2000 ppm.
- 5a. Pursuant to 35 Ill. Adm. Code 215.122(b), no person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 946 liters (250 gallons), unless such tank is equipped with a permanent submerged loading pipe, submerged fill, or an equivalent device approved by the Illinois EPA according to the provisions of 35 Ill. Adm. Code 201 or unless such tank is a pressure tank as described in 35 Ill. Adm. Code 215.121(a) or is fitted with a recovery system as described in 35 Ill. Adm. Code 215.121(b)(2).
- b. Pursuant to 35 Ill. Adm. Code 215.301, no person shall cause or allow the discharge of more than 3.6 kg/hour (8 lbs/hour) of organic material into the atmosphere from any emission source, except as provided in 35 Ill. Adm. Code 215.302, 215.303, 215.304 and the following exception: If no odor nuisance exists the limitation of 35 Ill. Adm. Code 215

Subpart K (Use of Organic Material) shall apply only to photochemically reactive material.

6. Pursuant to 35 Ill. Adm. Code 216.121, no person shall cause or allow the emission of carbon monoxide (CO) into the atmosphere from any fuel combustion emission source with actual heat input greater than 2.9 MW (10 mmBtu/hour) to exceed 200 ppm, corrected to 50 percent excess air.
- 7a. This permit is issued based on the Carulite dryer/calciner not being subject to the New Source Performance Standard (NSPS) for Calciners and Dryers in Mineral Industries, 40 CFR Part 60 Subpart UUU because the source is not classified a mineral processing plant as defined in 40 CFR 60.730(a).
- 8a. This permit is issue based on the source not being subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Process Cooling Towers, 40 CFR 63 Subpart Q. This is also a result of the federally enforceable production and operating limitations, which restrict the potential to emit to less than 10 tons/year for any individual Hazardous Air Pollutant (HAP), and 25 tons/year of any combination of such HAPs and because the cooling towers are not operated with chromium-based water treatment chemicals.
- b. This permit is issued based on Boilers No. 3 and No. 4 not being subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63 Subpart JJJJJJ. Pursuant to 40 CFR 63.11195(e), a gas-fired boiler as defined in 40 CFR 63 Subpart JJJJJJ are not subject to 40 CFR 63 Subpart JJJJJJ and to any requirements in 40 CFR 63 Subpart JJJJJJ.
- c. This permit is issued based on the Carulite dryer/calciner not being subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Area Sources: Chemical Preparations Industry, 40 CFR 63 Subpart BBBBBBBB. Pursuant to 40 CFR 63.11579(f), you are exempt from the requirements specified in 40 CFR 63 Subpart BBBBBBBB if the chemical preparations operations at your facility are subject to the requirements specified in 40 CFR 63 Subpart VVVVVV or 40 CFR 63 Subpart CCCCCC.
9. Pursuant to 35 Ill. Adm. Code 212.314, 35 Ill. Adm. Code 212.301 shall not apply and spraying pursuant to 35 Ill. Adm. Code 212.304 through 212.310 and 35 Ill. Adm. Code 212.312 shall not be required when the wind speed is greater than 40.2 km/hour (25 mph). Determination of wind speed for the purposes of this rule shall be by a one-hour average or hourly recorded value at the nearest official station of the U.S. Weather Bureau or by wind speed instruments operated on the site. In cases where the duration of operations subject to this rule is less than one hour, wind speed may be averaged over the duration of the operations on the basis of on-site wind speed instrument measurements.

10. Pursuant to 35 Ill. Adm. Code 215.122(c), if no odor nuisance exists the limitations of 35 Ill. Adm. Code 215.122 shall only apply to the loading of volatile organic liquid with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F).
- 11a. Pursuant to 40 CFR 63.11495(a), if you have a CMPU subject to 40 CFR 63 Subpart VVVVVV, you must comply with 40 CFR 63.11495(a)(1) through (5).
  - i. Each process vessel must be equipped with a cover or lid that must be closed at all times when it is in organic HAP service or metal HAP service, except for manual operations that require access, such as material addition and removal, inspection, sampling and cleaning. This requirement does not apply to process vessels containing only metal HAP that are in a liquid solution or other form that will not result in particulate emissions of metal HAP (e.g., metal HAP that is in ingot, paste, slurry, or moist pellet form or other form).
  - ii. You must conduct inspections of process vessels and equipment for each CMPU in organic HAP service or metal HAP service, as specified in to 40 CFR 63.11495(a)(3)(i) through (v), to demonstrate compliance with 40 CFR 63.11495(a)(1) and to determine that the process vessels and equipment are sound and free of leaks. Alternatively, except when the subject CMPU contains metal HAP as particulate, inspections may be conducted while the subject process vessels and equipment are in VOC service, provided that leaks can be detected when in VOC service.
    - A. Inspections must be conducted at least quarterly.
    - B. For these inspections, detection methods incorporating sight, sound, or smell are acceptable. Indications of a leak identified using such methods constitute a leak unless you demonstrate that the indications of a leak are due to a condition other than loss of HAP. If indications of a leak are determined not to be HAP in one quarterly monitoring period, you must still perform the inspection and demonstration in the next quarterly monitoring period.
    - C. As an alternative to conducting inspections, as specified in 40 CFR 63.11495(a)(3)(ii), you may use Method 21 of 40 CFR Part 60, appendix A-7, with a leak definition of 500 ppmv to detect leaks. You may also use Method 21 with a leak definition of 500 ppmv to determine if indications of a leak identified during an inspection conducted in accordance with 40 CFR 63.11495(a)(3)(ii) are due to a condition other than loss of HAP. The procedures in 40 CFR 63.11495(a)(3)(iii) may not be used as an alternative to the inspection required by 40 CFR 63.11495(a)(3)(ii) for process vessels that contain metal HAP as particulate.

- C. Inspections must be conducted while the subject CMPU is operating.
  - D. No inspection is required in a calendar quarter during which the subject CMPU does not operate for the entire calendar quarter and is not in organic HAP service or metal HAP service. If the CMPU operates at all during a calendar quarter, an inspection is required.
- iii. You must repair any leak within 15 calendar days after detection of the leak, or document the reason for any delay of repair. For the purposes of 40 CFR 63.11495(a)(4), a leak will be considered "repaired" if a condition specified in 40 CFR 63.11495(a)(4)(i), (ii), or (iii) is met.
- A. The visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated, or
  - B. No bubbles are observed at potential leak sites during a leak check using soap solution, or
  - C. The system will hold a test pressure.
- iv. You must keep records of the dates and results of each inspection event, the dates of equipment repairs, and, if applicable, the reasons for any delay in repair.
- b. Pursuant to 40 CFR 63.11495(b), for each heat exchange system subject to this subpart with a cooling water flow rate less than 8,000 gallons per minute (gal/min) and not meeting one or more of the conditions in 40 CFR 63.104(a), you must comply with 40 CFR 63.11495(b)(1) through (3), or as an alternative, you may comply with any one of the requirements in Item 1.a or 1.b of Table 8 to 40 CFR 63 Subpart VVVVVV.
- i. You must develop and operate in accordance with a heat exchange system inspection plan. The plan must describe the inspections to be performed that will provide evidence of hydrocarbons in the cooling water. Among other things, inspections may include checks for visible floating hydrocarbon on the water, hydrocarbon odor, discolored water, and/or chemical addition rates. You must conduct inspections at least once per quarter, even if the previous inspection determined that the indications of a leak did not constitute a leak as defined by 40 CFR 63.104(b)(6).
  - ii. You must perform repairs to eliminate the leak and any indications of a leak or demonstrate that the HAP concentration in the cooling water does not constitute a leak, as defined by 40 CFR 63.104(b)(6), within 45 calendar days after indications of the leak are identified, or you must document the reason for any delay of repair in your next semiannual compliance report.

- iii. You must keep records of the dates and results of each inspection, documentation of any demonstrations that indications of a leak do not constitute a leak, the dates of leak repairs, and, if applicable, the reasons for any delay in repair.
- c. Pursuant to 40 CFR 63.11495(d), at all times, you must operate and maintain any affected CMPU, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Illinois EPA or USEPA, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the CMPU.
- d. Pursuant to 40 CFR 63.11498(a), you must comply with the requirements in 40 CFR 63.11498(a)(1) and (2) and in Table 6, Item 1 to 40 CFR 63 Subpart VVVVVV for all wastewater streams from a CMPU subject to 40 CFR 63 Subpart VVVVVV. If the partially soluble HAP concentration in a wastewater stream is equal to or greater than 10,000 parts per million by weight (ppmw) and the wastewater stream contains a separate organic phase, then you must also comply with Table 6, Item 2 to 40 CFR 63 Subpart VVVVVV for that wastewater stream. Partially soluble HAPs are listed in Table 7 to 40 CFR 63 Subpart VVVVVV.

Table 6 to Subpart VVVVVV of Part 63—Emission Limits and Compliance Requirements for Wastewater Systems

[As required in 40 CFR 63.11498, you must comply with the requirements for wastewater systems as shown in the following table]

For each . . .	You must . . .	And you must . . .
1. Wastewater stream	a. Discharge to onsite or offsite wastewater treatment or hazardous waste treatment	i. Maintain records identifying each wastewater stream and documenting the type of treatment that it receives. Multiple wastewater streams with similar characteristics and from the same type of activity in a CMPU may be grouped together for recordkeeping purposes.
2. Wastewater stream containing partially soluble HAP at a concentration $\geq 10,000$ ppmw and separate organic and water phases	a. Use a decanter, steam stripper, thin film evaporator, or distillation unit to separate the water phase from the organic phase(s); or	i. For the water phase, comply with the requirements in Item 1 of this table, and ii. For the organic phase(s), recycle to a process, use as fuel, or dispose as hazardous waste either onsite or offsite, and iii. Keep records of the wastewater streams subject to this requirement and the disposition of the organic phase(s).

For each . . .	You must . . .	And you must . . .
	b. Hard pipe the entire wastewater stream to onsite treatment as a hazardous waste, or hard pipe the entire wastewater stream to a point of transfer to onsite or offsite hazardous waste treatment.	i. Keep records of the wastewater streams subject to this requirement and the disposition of the wastewater streams

- i. Except as specified in 40 CFR 63.11498(a)(2), you must determine the total concentration of partially soluble HAP in each wastewater stream using process knowledge, engineering assessment, or test data. Also, you must reevaluate the concentration of partially soluble HAP if you make any process or operational change that affects the concentration of partially soluble HAP in a wastewater stream.
- ii. You are not required to determine the partially soluble concentration in wastewater that is hard piped to a combustion unit or hazardous waste treatment unit, as specified in Table 6, Item 2.b to 40 CFR 63 Subpart VVVVVV.
- iii. Separated organic material that is recycled to a process is no longer wastewater and no longer subject to the wastewater requirements after it has been recycled.
- d. Pursuant to 40 CFR 63.11498(b) The requirements in Item 2 of Table 6 to 40 CFR 63 Subpart VVVVVV does not apply during periods of startup or shutdown. References to SSM provisions in subparts that are referenced in 40 CFR 63.11498(a) or Table 6 to 40 CFR 63 Subpart VVVVVV do not apply.
- e. Pursuant to 40 CFR 63.11501(a), you must meet the requirements of the General Provisions in 40 CFR Part 63, Subpart A, as shown in Table 9 to 40 CFR 63 Subpart VVVVVV (see Attachment B). The General Provisions in other parts do not apply except when a requirement in an overlapping standard, which you determined is at least as stringent as 40 CFR 63 Subpart VVVVVV and with which you have opted to comply, requires compliance with general provisions in another part.
- 12a. In the event that the operation of this source results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the odor nuisance.
- b. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the dust collectors, baghouses, wet collectors, cyclones, demisters and wet

scrubbers such that the dust collectors, baghouses, wet collectors, cyclones, demisters and wet scrubbers are kept in proper working condition and not cause a violation of the Environmental Protection Act or regulations promulgated therein.

- c. Boiler #3 and #4, Hot Oil Heater #2 and #3 Cairox Wyssmont Dryer, and the Space Heaters shall only be operated with natural gas as the fuel. The use of any other fuel in the Boiler #3 and #4, Hot Oil Heater #2 and #3 Wyssmont Dryer, or the Space Heaters requires that the Permittee first obtain a construction permit from the Illinois EPA and then perform stack testing to verify compliance with all applicable requirements.
  - d. The Illinois EPA shall be allowed to sample all fuels stored at the above location.
  - e. This permit is issued based on the cooling towers at this source not using chromium-based water treatment chemicals. As a result, this permit is issued based on the source not being subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial Process Cooling Towers, 40 CFR 63 Subpart Q.
- 13a. Emissions and operation of facility equipment shall not exceed the following limits:
- i. The production of facility equipment shall not exceed the following limits:

<u>Product</u>	<u>Production</u>	
	<u>(Tons/Month)</u>	<u>(Tons/Year)</u>
Potassium Permanganate	2,790	22,320
Carulite	65	500
Sodium Permanganate (dry basis)	400	3,000

- ii. Total emissions of Cairox Plant (Permanganate Process) equipment shall not exceed the following limits:

<u>Emission Unit</u>	<u>PM Emissions</u>		<u>Manganese Emissions</u>	
	<u>(Lb/Hr)</u>	<u>(Ton/Yr)</u>	<u>(Lb/Hr)</u>	<u>(Ton/Yr)</u>
Surge Hopper #1 w/ Filter Bin	0.0053	0.0470	0.0053	0.047
Surge Hopper #2 w/ Filter Bin	0.0053		0.0053	
Weigh Hopper w/Dust Collector	0.0060	0.0090	0.006	0.009
Blender Transporter w/D. C.	0.029	0.127	0.29	0.127
South Silo (Pilot Plant) w/D. C.	0.056	0.063	0.056	0.063
South Center Silo w/D. C.	0.056	0.063	0.056	0.063
North Center Silo w/D. C.	0.04	0.063	0.04	0.063
North Silo w/D. C.	0.023	0.063	0.023	0.063
Recycle TK w/D. C.	0.034	0.055	0.34	0.055
Cycle Bin w/D. C.	0.023	0.045	0.023	0.045
Bulk FF Bin & Bulk Tech w/D. C.	0.019	0.045	0.019	0.045

Cairox Plant (Permanganate Process)		PM Emissions		Manganese Emissions	
Emission Unit		(Lb/Hr)	(Ton/Yr)	(Lb/Hr)	(Ton/Yr)
Pilot Plant Bulk Bin w/D. C.		0.0025	0.0110	0.0025	0.0110
Packaging Silo w/D. C.		0.025	0.04	0.025	0.04
Evaporator Marley Cooling towers - Cell 1		0.014	0.0613	---	---
Evaporator Marley Cooling towers - Cell 2		0.014	0.0613	---	---
North Ore Storage Bin w/D. C.		0.0021	0.0032	0.0025	0.0037
South Ore Storage Bin w/D. C.		0.0021	0.0032	0.0025	0.0037
Cairox Ore Use Bin #1 w/D. C.		0.0025	0.0038	0.0033	0.0050
Cairox Ore Use Bin #2 w/D. C.		0.0021	0.0032	0.0025	0.0037
Cairox Ore Use Bin #3 w/D. C.		0.0021	0.0032	0.0025	0.0037
#1 Oxidizer Cooling/Condensing Tower w/D. C.		0.036	0.1577	---	---
#2 Oxidizer Cooling/Condensing Tower w/D. C.		0.036	0.1577	---	---
Cairox Finished Product Dryer w/Old Schneible Wet scrubber & cyclone		0.027	0.1183	0.0270	0.1183
KOH Surge Tank		0.036	0.157	0.0360	0.1577
Cairox Packaging & Blending Dust Pickups w/New Schneible wet scrubber & cyclone		0.3058	1.3392	0.3058	1.3392
Cairox Bulk Storage Tank & Loading Station w/New Schneible wet scrubber & cyclone		0.0532	0.0319	0.0532	0.0319
#3 Oxidizer Cooling/Condensing Tower		0.0360	0.1577	---	---
Pneumatic Transfer of Lime to storage Bin from Tank Truck w/Baghouse		0.0100	0.4400	---	---
KOH Concentrator Tank		0.1000	0.4380	0.1000	0.4380
Free flow additive transport system w/Cyclone and baghouse		0.0060	0.0170		
Three (3) Oxidizer Marley Cooling Towers		0.1080	0.4731	-----	-----
	Total		4.26		2.74

These limits are based on the maximum hours of operation and other operational parameters and emission factors as outlined in Condition 13(a) (vi).

- iii. Total emissions of Cairox Plant (Specialty Product Process) equipment shall not exceed the following limits:

Cairox Plant Specialty Product Process		PM <sub>10</sub> Emissions		Manganese Emissions	
Emission Unit		(lb/Hr)	(Ton/Yr)	(lb/Hr)	(Ton/Yr)
USP Vacuum Dryer w/ condenser		0.1008	0.0504	0.1008	0.0504

Cairox Plant				
Specialty Product Process Emission Unit	PM <sub>10</sub> Emissions		Manganese Emissions	
	(lb/Hr)	(Ton/Yr)	(lb/Hr)	(Ton/Yr)
USP Sievers w/ USP Wet D. C.	0.0017	0.0009	0.0017	0.0009
Nugget Siever w/ USP Wet D. C.	0.0046	<u>0.0004</u>	0.8899	<u>0.0004</u>
Total:		<u>0.0500</u>		<u>0.0500</u>

These limits are based on the maximum hours of operation and other operational parameters and emission factors as outlined in Condition 13(a)(vi).

- iv. Total emissions of Pilot Plant (Carulite Process) equipment shall not exceed the following limits:

Pilot Plant (Carulite Process) Emission Unit	PM <sub>10</sub> Emissions		Manganese Emissions	
	(lb/Hr)	(Ton/Yr)	(lb/Hr)	(Ton/Yr)
New Acid Wash Tank w/ 400 Scrubber				
South Oxidizer w/ 400 Scrubber				
East Cooker w/ 400 Scrubber				
200 Centrifuge w/ 400 Scrubber	0.1000	0.4400	0.0001	0.0004
Wyssmont Dryer Discharge Bin w/D. C.				
300 Building South Carulite Product Storage Bin w /D. C. PIL-DC-310				
Wyssmont Dryer Feed Bin w/ D. C. PIL-DC-310				
300 Building North Product Storage Bin w/ D. C. PIL-DC-310				
300 Siever w/ D. C. PIL-DC-310				
300 Elevator w/ D. C. PIL-DC-310	0.1000	0.4400	0.0045	0.0197
Pilot Plant 1300 Filter Press Discharge Elevator Dust w/ PIL-DC-1300				
1300 Filter Press Screw Conveyor Dust w/Fabric Filter Baghouse w/ PIL-DC-1300	0.1000	0.4400	0.1000	0.4400
Pilot Plant Carulite Wyssmont Dryer w/ D. C. PIL-DC-385	0.1000	0.4400	0.1000	0.4400
Conveyors, Material Storage Bins, dryer/calcliner, dry product storage bin, and finished product packaging.	0.5400	2.3652	0.5400	2.3652
300 Blender w/ Jet Pump PIL-TA-387	0.0540	0.4600	0.0540	0.4600
1300 Blender w/ Jet Pump PIL-TA-1308	0.1200	<u>0.4600</u>	0.1200	<u>0.4600</u>
Total		<u>5.05</u>		<u>4.19</u>

These limits are based on the maximum hours of operation and other operational parameters and emission factors as outlined in Condition 13(a) (vi).

- v. Total emissions of Pilot Plant (Sodium Permanganate Process) equipment shall not exceed the following limits

<u>Emission Unit</u>	<u>PM<sub>10</sub> Emissions</u>		<u>Manganese Emissions</u>	
	<u>(lb/Ton)</u>	<u>(Ton/Yr)</u>	<u>(lb/Ton)</u>	<u>(Ton/Yr)</u>
Pilot Plant Sodium Permanganate Process				
600 Filtrate Tank w/ 400 Scrubber				
North Oxidizer w/ 400 Scrubber				
RE 730 Crystallizer w/ 400 Scrubber				
50% Na Storage tank w/ 400 Scrubber				
RE 750 Crystallizer w/ 400 Scrubber				
500 Dilution Tank w/ 400 Scrubber	2.2	3.3	1.2	1.8
600 Wash Tank w/ 400 Scrubber				
600 Acid Wash Tank w/ 400 Scrubber				
200 Oxidizer w/ Pilot Plant De-Mister				
Sodium Permanganate Concentrator w/ Pilot Plant De-Mister				
Reactor w/ Pilot Plant De-Mister				

These limits are based on maximum production, standard emission factors, and maximum operating parameters.

- vi. Emissions shall be calculated based on the hours of operation and other operational parameters and emission factors as outlined below:

<u>Emission Unit</u>	<u>PM<sub>10</sub> Emissions</u>	<u>Manganese Emissions</u>
Cairox Plant Permanganate Process		
Surge Hopper #1 w/ Filter Bin	0.256 lb/day	0.256 lb/day
Surge Hopper #2 w/ Filter Bin	0.256 lb/day	0.256 lb/day
Weigh Hopper w/ Dust Collector	4.01 x 10 <sup>-7</sup> lb/ (Prod. - USP) lb	4.01 x 10 <sup>-7</sup> lb/ (Prod. - USP) lb
Blender Transporter w/ D. C.	3.51 x 10 <sup>-6</sup> lb/ (Prod. - USP) lb	3.51 x 10 <sup>-6</sup> lb/ (Prod. - USP) lb
South Silo (Pilot Plant) w/ D. C.	2.838 x 10 <sup>-6</sup> lb/lb	2.838 x 10 <sup>-6</sup> lb/lb
South Center Silo w/ D. C.	2.838 x 10 <sup>-6</sup> lb/lb	2.838 x 10 <sup>-6</sup> lb/lb
North Center Silo w/ D. C.	2.838 x 10 <sup>-6</sup> lb/lb	2.838 x 10 <sup>-6</sup> lb/lb
North Silo w/ D. C.	2.838 x 10 <sup>-6</sup> lb/lb	2.838 x 10 <sup>-6</sup> lb/lb
Recycle TK w/ D. C.	2.48 x 10 <sup>-6</sup> lb/lb	2.48 x 10 <sup>-6</sup> lb/lb

<u>Emission Unit</u>	<u>PM<sub>10</sub> Emissions</u>	<u>Manganese Emissions</u>
Cycle Bin w/ D. C.	$2.021 \times 10^{-6}$ lb/lb	$2.021 \times 10^{-6}$ lb/lb
Bulk FF Bin & Bulk Tech w/ D. C.	$2.021 \times 10^{-6}$ lb/lb	$2.021 \times 10^{-6}$ lb/lb
Pilot Plant Bulk Bin w/ D. C.	$2.83 \times 10^{-6}$ lb/lb	$2.83 \times 10^{-6}$ lb/lb
Packaging Silo w/ D. C.	$1.793 \times 10^{-6}$ lb/lb	$1.793 \times 10^{-6}$ lb/lb
Evaporator Marley Cooling towers - Cell 1	0.336 lb/day for Each	
Evaporator Marley Cooling towers - Cell 2	0.336 lb/day for Each	
North Ore Storage Bin w/ D. C.	0.0021 lb/hr	0.0025 lb/hr
South Ore Storage Bin w/ D. C.	0.0021 lb/hr	0.0025 lb/hr
Cairox Ore Use Bin #1 w/ D. C.	0.0025 lb/hr	0.0033 lb/hr
Cairox Ore Use Bin #2 w/ D. C.	0.0021 lb/hr	0.0025 lb/hr
Cairox Ore Use Bin #3 w/ D. C.	0.0021 lb/hr	0.0025 lb/hr
#1 Oxidizer Cooling/Condensing Tower w/ D. C.	0.0360 lb/hr	
#2 Oxidizer Cooling/Condensing Tower w/ D. C.	0.0360 lb/hr	
Cairox Finished Product Dryer w/ Old Schneible Wet scrubber & cyclone	$5.3 \times 10^{-6}$ lb/lb Cairox Product	$5.3 \times 10^{-6}$ lb/lb Cairox Product
KOH Surge Tank	0.0360 lb/hr	0.0360 lb/hr
Cairox Packaging & Blending Dust Pickups w/ New Schneible wet scrubber & cyclone	$6.0 \times 10^{-5}$ lb/lb Cairox Product	$6.0 \times 10^{-5}$ lb/lb Cairox Product
Cairox Bulk Storage Tank & Loading Station w/ New Schneible wet scrubber & cyclone	0.0532 lb/hr	0.0532 lb/hr
#3 Oxidizer Cooling/Condensing Tower	0.0360 lb/hr	----
Pneumatic Transfer of Lime to storage Bin from Tank Truck w/ Baghouse	0.1 lb/hr	----
KOH Concentrator Tank	0.1000 lb/hr	0.1000 lb/hr
Free flow additive transport system w/ Cyclone and baghouse	0.14 lb/day	----
#1 Oxidizer Marley cooling Tower	0.864 lb/day	----
#2 Oxidizer Marley cooling Tower	0.864 lb/day	----
#3 Oxidizer Marley cooling Tower	0.864 lb/day	----
<u>Cairox Plant</u> <u>Specialty Products Process</u>		
Vacuum Dryer w/ condenser	0.0021 lb/lb specialty product	0.0021 lb/lb specialty product
Sievers w/ USP Wet D. C.	$3.7 \times 10^{-5}$ lb/ specialty product	$3.7 \times 10^{-5}$ lb/ specialty product

<u>Emission Unit</u>	<u>PM<sub>10</sub> Emissions</u>	<u>Manganese Emissions</u>
Nugget Siever w/ USP Wet D. C.	3.7 x 10 <sup>-5</sup> lb/ specialty product	3.7 x 10 <sup>-5</sup> lb/ specialty product
<u>Pilot Plant</u>		
<u>Carulite Process</u>		
New Acid Wash Tank w/ 400 Scrubber	0.1 lb/hr	0.0001 lb/hr
South Oxidizer w/ 400 Scrubber		
East Cooker w/ 400 Scrubber		
200 Centrifuge w/ 400 Scrubber		
Wyssmont Dryer Discharge Bin w/ D. C.	0.1000 lb/hr	0.0045 lb/hr
300 Building South Carulite Product Storage Bin w/ D. C. PIL-DC-310		
Wyssmont Dryer Feed Bin w/ D. C. PIL-DC-310		
300 Building North Product Storage Bin w/ D.C. PIL-DC-310		
300 Siever w/ D. C. PIL-DC-310		
300 Elevator w/ D. C. PIL-DC- 310		
Pilot Plant 1300 Filter Press Discharge Elevator Dust w/ PIL-DC-1300	0.1 lb/hr	0.1 lb/hr
1300 Filter Press Screw Conveyor Dust w/ Fabric Filter Baghouse w/ PIL-DC-1300		
Pilot Plant Carulite Wyssmont Dryer w/ D. C. PIL-DC-385	0.1 lb/hr	0.1 lb/hr
Conveyors, Material Storage Bins, dryer/calcliner, dry product storage bin, and finished product packaging.	0.0092 lb/lb	0.0092 lb/lb
300 Blender w/ Jet Pump PIL- TA-387	0.054 lb/hr	0.054 lb/hr
1300 Blender w/ Jet Pump PIL- TA-1308	0.12 lb/hr	0.12 lb/hr

<u>Emission Unit</u>	<u>PM<sub>10</sub> Emissions</u>	<u>Manganese Emissions</u>
<u>Pilot Plant</u>		
<u>Sodium Permanganate Process</u>		
600 Filtrate Tank w/ 400 Scrubber	2.2 lb/ton	1.2 lb/ton
North Oxidizer w/ 400 Scrubber		
RE 730 Crystallizer w/ 400 Scrubber		
50% Na Storage tank w/ 400 Scrubber		
RE 750 Crystallizer w/ 400 Scrubber		
500 Dilution Tank w/ 400 Scrubber		
600 Wash Tank w/ 400 Scrubber		
600 Acid Wash Tank w/ 400 Scrubber		
200 Oxidizer w/ Pilot Plant De-Mister		
Sodium Permanganate Concentrator w/ Pilot Plant De-Mister		
Reactor w/ Pilot Plant De-Mister		

d. Emissions from all fuel combustion units shall not exceed the following limits:

i. Natural Gas Usage: 167 mmscf/month, 1,000 mmscf/year.

ii. Emissions from the combustion of natural gas:

<u>Pollutant</u>	<u>Emission Factor (lbs/mmscf)</u>	<u>Emissions</u>	
		<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>
Carbon Dioxide Equivalent (CO <sub>2</sub> e)	120,246.7	7,515.42	60,123.35
Carbon Monoxide (CO)	84.0	5.25	42.00
Nitrogen Oxides (NO <sub>x</sub> )	100.0	6.25	50.00
Particulate Matter (PM)	7.6	0.48	3.80
Particulate Matter < 10 microns (PM <sub>10</sub> )	7.6	0.48	3.80
Sulfur Dioxide (SO <sub>2</sub> )	0.6	0.04	0.30
Volatile Organic Material (VOM)	5.5	0.34	2.80

These limits are based on the maximum fuel usage and standard emission factors (Tables 1.4-1 and 1.4-2, AP-42, Fifth Edition, Volume I, Supplement D, July 1998).

e. This permit is issued based on negligible emissions of Particulate Matter (PM) from the lime storage and transfer system. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

- f. This permit is issued based on negligible emissions of particulate matter from each liquid phosphate mix tank. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year each.
  - g. This permit is issued based on negligible emissions of hydrogen chloride from the phosphate mix process with scrubber. For this purpose, emission shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.
  - h. This permit is issued based on negligible emissions of particulate matter phosphate blender controlled by fabric filter. For this purpose, PM emissions shall not exceed nominal emission rates of 0.04 lb/hour and 0.15 ton/year.
  - i. Emissions and operation of bulk silos are based on an uncontrolled grain loading of 50 gr/dscf and the dust collectors meeting a 99.95% overall efficiency.
  - j. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act from this source shall not exceed 0.9 tons/month and 9.0 tons/year of any single HAP and 2.25 tons/month and 22.5 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a CAAPP permit from the Illinois EPA.
  - k. Compliance with the annual limits of this permit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).
- 14a. Pursuant to 35 Ill. Adm. Code 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:
- i. Testing by Owner or Operator. The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. The Illinois EPA may adopt procedures detailing methods of testing and formats for reporting results of testing. Such procedures and revisions thereto, shall not become effective until filed with the Secretary of State, as required by the APA Act. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of

air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests.

- ii. Testing by the Illinois EPA. The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.
  - b. Testing required by Condition 15 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.
15. Pursuant to 35 Ill. Adm. Code 212.110(c), upon a written notification by the Illinois EPA, the owner or operator of a particulate matter emission unit subject to 35 Ill. Adm. Code Part 212 shall conduct the applicable testing for particulate matter emissions, opacity, or visible emissions at such person's own expense, to demonstrate compliance. Such test results shall be submitted to the Illinois EPA within thirty (30) days after conducting the test unless an alternative time for submittal is agreed to by the Illinois EPA.
  16. Pursuant to 40 CFR 63.10(b)(3), if an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to section 112(d) or (f) of the Clean Air Act, and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under 40 CFR Part 63) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the USEPA and/or Illinois EPA to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of 40 CFR Part 63 for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with USEPA guidance materials published to assist sources in making applicability determinations under Section 112 of the Clean Air Act, if any. The requirements to determine applicability of a standard under 40 CFR 63.1(b)(3) and to record the results of that determination under 40 CFR 63.10(b)(3) shall not by themselves create an obligation for the owner or operator to obtain a Title V permit.

- 17a. Pursuant to 40 CFR 63.11501(c), you must maintain files of all information required by 40 CFR 63 Subpart VVVVVV for at least 5 years following the date of each occurrence according to the requirements in 40 CFR 63.10(b)(1). If you are subject, you must comply with the recordkeeping and reporting requirements of 40 CFR 63.10(b)(2)(iii) and (vi) through (xiv), and the applicable requirements specified in 40 CFR 63.11501(c)(1) through (8).
- i. For each CMPU subject to 40 CFR 63 Subpart VVVVVV you must keep the records specified in 40 CFR 63.11501(c)(1)(i) through (viii).
    - A. Records of management practice inspections, repairs, and reasons for any delay of repair, as specified in 40 CFR 63.11495(a)(5).
    - B. Records of small heat exchange system inspections, demonstrations of indications of leaks that do not constitute leaks, repairs, and reasons for any delay in repair as specified in 40 CFR 63.11495(b).
    - C. Records of metal HAP emission calculations as specified in 40 CFR 63.11496(f)(1) and (2). If total uncontrolled metal HAP process vent emissions from a CMPU subject to 40 CFR 63 Subpart VVVVVV are estimated to be less than 400 lbs/year, also keep records of either the number of batches per month or operating hours, as specified in 40 CFR 63.11496(f)(2).
    - D. Records identifying wastewater streams and the type of treatment they receive, as specified in Table 6 to 40 CFR 63 Subpart VVVVVV.
    - E. Records of the date, time, and duration of each malfunction of operation of process equipment, control devices, recovery devices, or continuous monitoring systems used to comply with 40 CFR 63 Subpart VVVVVV that causes a failure to meet a standard. The record must include a list of the affected sources or equipment, an estimate of the volume of each regulated pollutant emitted over the standard, and a description of the method used to estimate the emissions.
    - F. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.11495(d), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation
  - ii. For metal HAP process vents subject to Table 4 to 40 CFR 63 Subpart VVVVVV, you must keep records specified in 40 CFR 63.11501(c)(3)(i) or (ii), as applicable.

- A. For a new source using a control device other than a baghouse and for any existing source, maintain a monitoring plan, as specified in 40 CFR 63.11496(f)(3)(i), and keep records of monitoring results, as specified in 40 CFR 63.11496(f)(3).
  - B. For a new source using a baghouse to control metal HAP emissions, keep a site-specific monitoring plan, as specified in 40 CFR 63.11496(f)(4) and 63.11410(g), and keep records of bag leak detection systems, as specified in 40 CFR 63.11496(f)(4) and 63.11410(g)(4).
- iii. For each wastewater stream subject to Item 2 in Table 6 to 40 CFR 63 Subpart VVVVVV, keep records of the wastewater stream identification and the disposition of the organic phase(s), as specified in Item 2 to Table 6 to 40 CFR 63 Subpart VVVVVV.
18. Pursuant to 35 Ill. Adm. Code 212.110(e), the owner or operator of an emission unit subject to 35 Ill. Adm. Code Part 212 shall retain records of all tests which are performed. These records shall be retained for at least three (3) years after the date a test is performed.
- 19a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:
- i. Records addressing use of good operating practices for the dust collectors, baghouses, wet collectors, cyclones, demisters and wet scrubbers:
    - A. Records for periodic inspection of the dust collectors, baghouses, wet collectors, cyclones, demisters and wet scrubbers with date, individual performing the inspection, and nature of inspection; and
    - B. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
  - ii. Potassium permanganate production (lbs/month);
  - iii. Sodium permanganate production (lbs/month);
  - iv. Carulite production (lbs/month);
  - v. Bulk silos/packaging throughput (lbs/month);
  - vi. Phosphate blending production;
  - vii. Material Safety Data Sheets (MSDSs) for any new chemical components used in the processes, if any;
  - viii. Natural gas usage (mmscf/month and mmscf/year); and

- ix. Monthly and annual emissions of CO<sub>2</sub>e, CO, NO<sub>x</sub>, PM, PM<sub>10</sub>, SO<sub>2</sub>, VOM and HAPs from the source with supporting calculations (tons/month and tons/year).
  - b. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five (5) years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer storage device) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
- 20a. Pursuant to 40 CFR 63.11501(b), Your Notification of Compliance Status (NOCS) required by 40 CFR 63.9(h) must include the following additional information as applicable:
- i. This certification of compliance, signed by a responsible official:
    - A. "This facility complies with the management practices in 40 CFR 63.11495."
    - B. "This facility complies with the requirements in 40 CFR 63.11496 for HAP emissions from process vents."
    - C. "This facility complies with the requirements in 40 CFR 63.11496 and 40 CFR 63.11497 for surge control vessels, bottoms receivers, and storage tanks."
    - D. "This facility complies with the requirements in 40 CFR 63.11498 to treat wastewater streams."
    - E. "This facility complies with the requirements in 40 CFR 63.11499 for heat exchange systems."
  - ii. If you comply with the alternative standard as specified in Table 2 to 40 CFR 63 Subpart VVVVVV or Table 3 to 40 CFR 63 Subpart VVVVVV, include the information specified in 40 CFR 63.1258(b)(5), as applicable.
  - iii. If you establish an operating limit for a parameter that will not be monitored continuously in accordance with 40 CFR 63.11496(g)(4) and 63.2450(k)(6), provide the information as specified in 40 CFR 63.11496(g)(4) and 63.2450(k)(6).
  - iv. A list of all transferred liquids that are reactive or resinous materials, as defined in 40 CFR 63.11502(b).
  - v. If you comply with provisions in an overlapping rule in accordance with 40 CFR 63.11500, identify the affected CMPU, heat exchange system, and/or wastewater system; provide a list of the specific provisions with which you will comply; and demonstrate that the

provisions with which you will comply are at least as stringent as the otherwise applicable requirements, including monitoring, recordkeeping, and reporting requirements, in 40 CFR 63 Subpart VVVVVV.

- b. Pursuant to 40 CFR 63.11501(d), you must submit semiannual compliance reports that contain the information specified in 40 CFR 63.11501(d) (1) through (7), as applicable. Reports are required only for semiannual periods during which you experienced any of the events described in 40 CFR 63.11501(d) (1) through (8).
  - i. You must clearly identify any deviation from the requirements of 40 CFR 63 Subpart VVVVVV.
  - ii. You must include the information specified in 40 CFR 63.104(f) (2) each time you invoke the delay of repair provisions for a heat exchange system with a cooling water flow rate equal to or greater than 8,000 gallons/minute.
  - iii. You must provide the following information for each delay of leak repair beyond 15 days for any process equipment, storage tank, surge control vessel, bottoms receiver, and each delay of leak repair beyond 45 days for any heat exchange system with a cooling water flow rate less than 8,000 gallons/minute: information on the date the leak was identified, the reason for the delay in repair, and the date the leak was repaired.
  - iv. You must report each process change that affects a compliance determination and submit a new certification of compliance with the applicable requirements in accordance with the procedures specified in 40 CFR 63.11501(b).
  - v. If you comply with the alternative standard, as specified in Table 2 to 40 CFR 63 Subpart VVVVVV or Table 3 to 40 CFR 63 Subpart VVVVVV, report the information required in 40 CFR 63.1258(b) (5).
  - vi. Report any changes in the overlapping provisions with which you comply.
  - vii. Report any transfer of liquids that are reactive or resinous materials, as defined in 40 CFR 63.11502(b), and not included in the NOCS.
  - viii. If a malfunction occurred during the reporting period, the report must include the number of instances of malfunctions that caused emissions in excess of a standard. For each malfunction that caused emissions in excess of a standard, the report must include a list of the affected sources or equipment, an estimate of the volume of each regulated pollutant emitted over the standard, and a description of the method used to estimate the emissions. The report must also include a description of actions you took during

a malfunction of an affected source to minimize emissions in accordance with 40 CFR 63.11495(d), including actions taken to correct a malfunction.

21. Pursuant to 35 Ill. Adm. Code 212.110(d), a person planning to conduct testing for particulate matter emissions to demonstrate compliance shall give written notice to the Illinois EPA of that intent. Such notification shall be given at least thirty (30) days prior to the initiation of the test unless a shorter period is agreed to by the Illinois EPA. Such notification shall state the specific test methods from 35 Ill. Adm. Code 212.110 that will be used.
- 22a. If there is an exceedance of or a deviation from the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance or deviation. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or deviation and efforts to reduce emissions and future occurrences.
- b. Two (2) copies of required reports and notifications shall be sent to:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Compliance Section (#40)  
P.O. Box 19276  
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency  
Division of Air Pollution Control - Regional Office  
5407 North University  
Peoria, Illinois 61614

If you have any questions on this, please contact Jocelyn Stakely at 217/785-1705.

Raymond E. Pilapil  
Acting Manager, Permit Section  
Division of Air Pollution Control

Date Signed: \_\_\_\_\_

REP:JRS:psj

cc: Illinois EPA, FOS, Region 2  
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the Permanganate Plant operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are below the levels, (e.g., 100 tons/year for CO, NO<sub>x</sub>, and PM<sub>10</sub>, 10 tons/year for any single HAP, 25 tons/year for any combination of such HAP, and 100,000 tons CO<sub>2</sub>e/year for GHG) at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled, and control measures are more effective than required in this permit.

<u>Emission Unit</u>	E M I S S I O N S (Tons/Year)						<u>Single HAP</u>	<u>Combined HAPs</u>
	<u>CO<sub>2</sub>e</u>	<u>CO</u>	<u>NO<sub>x</sub></u>	<u>PM<sub>10</sub></u>	<u>SO<sub>2</sub></u>	<u>VOM</u>		
Cariox Process				4.25			2.73*	
Carulite Process				5.05			4.19*	
Sodium Permanganate Process				3.30			1.80*	
Specialty Product Process				0.05			0.05*	
Phosphate Process				1.03			0.44**	
Natural Gas Combustion liquid phosphate mix tank	60,123.35	42.00	50.00	3.80	0.30	2.80		
Phosphate blender	-----	-----	-----	0.15	-----	-----	-----	-----
Totals:	<u>60,123.35</u>	<u>42.00</u>	<u>50.00</u>	<u>18.08</u>	<u>0.30</u>	<u>2.80</u>	<u>9.00</u>	<u>22.50</u>

\* Manganese (Mn) Emissions

\*\* Hydrogen chloride Emissions

Attachment B - Table 9 to Subpart VVVVVV of Part 63—Applicability of General Provisions to Subpart VVVVVV

As required in 40 CFR 63.11501(a), you must comply with the requirements of the NESHAP General Provisions (40 CFR part 63, Subpart A) as shown in the following table.

Citation	Subject	Applies to Subpart VVVVVV?	Explanation
63.1(a) (1), (a) (2), (a) (3), (a) (4), (a) (6), (a) (10)–(a) (12) (b) (1), (b) (3), (c) (1), (c) (2), (c) (5), (e)	Applicability	Yes	
63.1(a) (5), (a) (7)–(a) (9), (b) (2), (c) (3), (c) (4), (d)	Reserved	No	
63.2	Definitions	Yes	
63.3	Units and Abbreviations	Yes	
63.4	Prohibited Activities and Circumvention	Yes	
63.5	Preconstruction Review and Notification Requirements	Yes	
63.6(a), (b) (1)– (b) (5), (b) (7), (c) (1), (c) (2), (c) (5), (e) (1) (iii), (g), (i), (j)	Compliance with Standards and Maintenance Requirements	Yes	
63.6(b) (6), (c) (3), (c) (4), (d), (h) (3), (h) (5) (iv)	Reserved	No	
63.6 (e) (1) (i) and (ii), (e) (3), and (f) (1)	SSM Requirements	No	See 40 CFR 63.11495(d) for general duty requirement.
63.6(h) (1)– (h) (4), (h) (5) (i)–(h) (5) (iii), (h) (6)–(h) (9)		No	Subpart VVVVVV does not include opacity or visible emissions (VE) standards or require a continuous opacity monitoring system (COMS).
63.7(a) (1), (a) (3), (a) (4), (c), (e) (4), and (f)–(h)	Performance Testing Requirements	Yes	

Citation	Subject	Applies to Subpart VVVVVV?	Explanation
63.7(a)(2), (b), (d), (e)(1)-(3)	Performance Testing Schedule, Notification of Performance Test, Performance Testing Facilities, and Conduct of Performance Tests	Yes/No	Requirements apply if conducting test for metal HAP control; requirements in 40 CFR 63.997(c)(1), (d), (e), and 63.999(a)(1) apply, as referenced in 40 CFR 63.11496(g), if conducting test for organic HAP or hydrogen halide and halogen HAP control device.
63.7(e)(1)	Performance Testing	No	See 40 CFR 63.11496(f)(3)(ii) if conducting a test for metal HAP emissions. See 40 CFR 63.11496(g) and 63.997(e)(1) if conducting a test for continuous process vents or for hydrogen halide and halogen emissions. See 40 CFR 63.11496(g) and 63.2460(c) if conducting a test for batch process vents.
63.8(a)(1), (a)(4), (b), (c)(1)-(c)(3), (f)(1)-(5)	Monitoring Requirements	Yes	References to SSM in 40 CFR 63.8(c) do not apply.
63.8(a)(2)	Monitoring Requirements	No	
63.8(a)(3)	Reserved	No	
63.8(c)(1)(i)	Reserved	No	
63.8(c)(1)(iii)	Requirement to Develop SSM Plan for CMS	No	
63.8(c)(4)		No	Only for CEMS. CPMS requirements in 40 CFR Part 63, Subpart SS are referenced from 40 CFR 63.11496. Requirements for COMS do not apply because Subpart VVVVVV does not require COMS.
63.8(c)(5)		No	Subpart VVVVVV does not require COMS.
63.8(c)(6)-(c)(8), (d)(1)-(d)(2), (e), (f)(6)		Yes	Requirements apply only if you use a continuous emission monitoring system (CEMS) to demonstrate compliance with the alternative standard in 40 CFR 63.11496(e).

Citation	Subject	Applies to Subpart VVVVVV?	Explanation
63.8(d) (3)	Written Procedures for CMS	Yes	Requirement applies except for last sentence, which refers to an SSM plan. SSM plans are not required.
63.8(g) (1) – (g) (4)		Yes	Data reduction requirements apply only if you use CEMS to demonstrate compliance with alternative standard in 40 CFR 63.11496(e). COMS requirements do not apply. Requirement in 40 CFR 63.8(g) (2) does not apply because data reduction for CEMS are specified in 40 CFR Part 63, Subpart FFFF.
63.8(g) (5)		No	Data reduction requirements for CEMS are specified in 40 CFR Part 63, Subpart FFFF, as referenced from 40 CFR 63.11496. CPMS requirements are specified in 40 CFR Part 63, Subpart SS, as referenced from 40 CFR 63.11496.
63.9(a), (b) (1), (b) (2), (b) (4), (b) (5), (c), (d), (e), (i)	Notification Requirements	Yes	
63.9(b) (3), (h) (4)	Reserved	No	
63.9(f)		No	Subpart VVVVVV does not contain opacity or VE limits.
63.9(g)		Yes	Additional notification requirement applies only if you use CEMS to demonstrate compliance with alternative standard in 40 CFR 63.11496(e).
63.9(h) (1) – (h) (3), (h) (5) – (h) (6)		Yes	Except subpart VVVVVV does not contain opacity or VE limits.
63.9(i)		Yes	
63.9(j)	Change in Information Already Provided	No	Notification of process changes that affect a compliance determination are required in 40 CFR 63.11501(d) (4).
63.10(a)	Recordkeeping Requirements	Yes	

Citation	Subject	Applies to Subpart VVVVVV?	Explanation
63.10(b)(1)		Yes	
63.10(b)(2)(i)	Recordkeeping of Occurrence and Duration of Startups and Shutdowns	No	See 40 CFR 63.11501(c)(8) for recordkeeping of occurrence and duration of each startup and shutdown for continuous process vents that are subpart to Table 3 to 40 CFR 63 Subpart VVVVVV.
63.10(b)(2)(ii)	Recordkeeping of Malfunctions	No	See 40 CFR 63.11501(c)(1)(vii) and (viii) for recordkeeping of (1) date, time, duration, and volume of excess emissions and (2) actions taken during malfunction.
63.10(b)(2)(iii)	Maintenance Records	Yes	
63.10(b)(2)(iv) and (v)	Actions Taken to Minimize Emissions During SSM	No	
63.10(b)(2)(vi), (x), (xi), (xiii)		Yes	Apply only if you use CEMS to demonstrate compliance with alternative standard in 40 CFR 63.11496(e).
63.10(b)(2)(vii)-(b)(2)(ix), (b)(2)(xii), (b)(2)(xiv)		Yes	
63.10(b)(3)		Yes	
63.10(c)(1), (c)(5)-(c)(6), (c)(13)-(c)(14)		Yes	Apply only if you use CEMS to demonstrate compliance with alternative standard in 40 CFR 63.11496(e).
63.10(c)(7)-(8)	Additional Recordkeeping Requirements for CMS-Identifying Exceedances and Excess Emissions	Yes	
63.10(c)(10)	Recordkeeping Nature and Cause of Malfunctions	No	See 40 CFR 63.11501(c)(1)(vii) and (viii) for malfunctions recordkeeping requirements.
63.10(c)(11)	Recording Corrective Actions	No	See 40 CFR 63.11501(c)(1)(vii) and (viii) for malfunctions recordkeeping requirements.
63.10(c)(12)		Yes	
63.10(c)(15)	Use of SSM Plan	No	

Citation	Subject	Applies to Subpart VVVVVV?	Explanation
63.10 (c) (2) - (c) (4), (c) (9)	Reserved	No	
63.10 (d) (1), (d) (2), (d) (4), (e) (1), (e) (2), (f)	Reporting Requirements	Yes	
63.10 (d) (3)		No	Subpart VVVVVV does not include opacity or VE limits.
63.10 (d) (5)	SSM Reports	No	See 40 CFR 63.11501(d) (8) for reporting requirements for malfunctions.
63.10 (e) (1) - (e) (2)		Yes	Apply only if you use CEMS to demonstrate compliance with alternative standard in 40 CFR 63.11496(e).
63.10 (e) (3)		Yes	
63.10 (e) (4)		No	Subpart VVVVVV does not include opacity or VE limits.
63.11	Control Device Requirements	Yes	
63.12	State Authorities and Delegations	Yes	
63.13	Addresses	Yes	
63.14	Incorporations by Reference	Yes	
63.15	Availability of Information and Confidentiality	Yes	
63.16	Performance Track Provisions	Yes	