

West Virginia Department of Environmental Protection

Harold D. Ward

Cabinet Secretary

Permit to Operate



Pursuant to

Title V

of the Clean Air Act

Issued to:

Westlake Natrium LLC

Natrium Plant

R30-05100002-2024

Laura M. Crowder

Laura M. Crowder

Director, Division of Air Quality

Issued: March 26, 2024 • Effective: April 9, 2024
Expiration: March 26, 2029 • Renewal Application Due: September 26, 2028

Permit Number: **R30-05100002-2024**
Permittee: **Westlake Natrium LLC**
Facility Name: **Natrium Plant**
Permittee Mailing Address: **15696 Energy Road, Proctor, WV 26055**

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 — Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

| | |
|--------------------------|--|
| Facility Location: | Proctor, Marshall County, West Virginia |
| Mailing Address: | 15696 Energy Road, Proctor, WV 26055 |
| Telephone Number: | (304) 455-2200 |
| Type of Business Entity: | LLC |
| Facility Description: | Chemicals and Allied Products |
| SIC Codes: | Primary 2812; Secondary 2819 |
| UTM Coordinates: | 512.70 km Easting • 4,399.60 km Northing • Zone 17 |
| Permit Writer: | Jonathan Carney |

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.

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APPENDIX AExample Data Forms

1.0 Emission Units and Active R13, R14, and R19 Permits

1.1 Emission Units

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed/Modified ¹ | Design Capacity | Control Device ² |
|--|-------------------|--|--------------------------------------|-------------------|-----------------------------|
| 4.0. Power Department – Boilers | | | | | |
| R015 (001) | S076 | #4 Boiler | 1952/2018 | 540 mmBTU/hr | LNB |
| R072 (003) | S482 | #5 Boiler ³ | 1966/2016 | 1,125 mmBTU/hr | LNB |
| R097 | S076 | #6 Boiler | 1993/2015 | 182 mmBTU/hr | LNB |
| R200 | S200 | Rental Boiler, Babcock & Wilcox Model RB-747 | 2017 | 99.9 mmBTU/hr | LNB |
| 6.0. Brine Department – Brine | | | | | |
| SP008 | | Rock Separator | 1992 | ~ 500 gal | |
| SP007 | E417 | Gas (H ₂ S) Separator | 2008 Overhaul (1989 installed) | 0.045 tph | FL003 Flare |
| V272 | | Raw Brine Storage | 1956 | 1700 gpm | |
| TW025 | E025 | Drip Gas Collection Tank (for #5 Brine Well) | 1997 | 800 gal | NA |
| TW010 | E026 | Drip Gas Collection Tank (for #8 Brine Well) | 1997 | 800 gal | NA |
| 6.0. Brine Department – Sewage Treatment System | | | | | |
| WW001 | None | Package Sewage Treatment Plant | 1976 | 8,760 hr/yr | NA |

¹ Year Installed means commenced construction as defined in 40 C.F.R. 60.

² Control Device/Control System abbreviations: LNB=Low NO_x Burners.

³ Boiler No. 5 was retrofitted with nine (9) burners. The 24-hour average design heat input is 999 MMBtu/hr with the unit operating on 8 of the 9 burners to produce steam at its design capacity.

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed/Modified ¹ | Design Capacity | Control Device ² |
|---------------------------------|-------------------|--------------------------------|--------------------------------------|-----------------|-----------------------------|
| 7.0 HCl Dept. | | | | | |
| V187 | E022 | #1 HCl Tank | --- | 19,400 gal | SC022 |
| V188 | E022 | #2 HCl Tank | --- | 19,400 gal | SC022 |
| V189 | E023 | #3 HCl Tank | --- | 127,000 gal | SC023 |
| V190 | E023 | #4 HCl Tank | --- | 206,000 gal | SC023 |
| V122 | E023 | #5 HCl Tank | 2009 | 112,850 gal | SC023 |
| SC022 | E022 | #1 & #2 HCl Tank Scrubber | --- | --- | NA |
| SC023 | E023 | #3, #4, & #5 HCl Tank Scrubber | --- | --- | NA |
| SU004 | E994 | #1 HCl Synthesis Unit | 2008 | 227 tpd | SC159 |
| SC159 | E994 | #1 Tails Tower | 2008 | -- | NA |
| V998 | NA | #1 HCl Catch Tank | 2008 | 472 gal | NA |
| V997 | E995 | #1 HCl Transfer Tank | 2008 | 528 gal | SC160 |
| SC160 | E995 | #1 HCl Transfer Tank Scrubber | 2008 | -- | NA |
| SU005 | E996 | #2 HCl Synthesis Unit | 2009 | 227 tpd | SC161 |
| SC161 | E996 | #2 Tails Tower | 2009 | -- | NA |
| V999 | NA | #2 HCl Catch Tank | 2009 | 528 gal | NA |
| SU006 | E1005 | #3 HCl Synthesis Unit | 2013 | 280 tpd | SC163 |
| SC163 | E1005 | #3 Tails Tower | 2013 | | |
| V1036 | E995 | #2 HCl Transfer Tank | 2013 | 528 gal | SC160 |
| 7.0. HCl Dept. – Loading | | | | | |
| LU053 | Z053 and E098 | Rail Transfer | --- | --- | SC018 (for HCl only) |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed/ Modified ¹ | Design Capacity | Control Device ² |
|--|-------------------|---|---------------------------------------|-----------------|-----------------------------|
| LU054 | Z054 and E023 | Tank Truck Loading | --- | --- | SC023 (for HCl only) |
| SC018 | E098 | HCl Rail Car Scrubber | --- | --- | NA |
| 8.0. Chlorine Dept. – Diaphragm Cells Chlorine Production | | | | | |
| CE002 | Z017 | #6 Circuit – Chlorine Fugitives | 1955 | 194 | NA |
| | E360 | #6 Circuit – Emergency Chlorine Scrubbing | | | SC009 Caustic Scrubber |
| CE003 | Z017 | #8 Circuit – Chlorine Fugitives | 1984 | 606 | NA |
| | E102 | #8 Circuit – Emergency Chlorine Scrubbing | | | SC008 Caustic Scrubber |
| 8.0. Chlorine Dept. – Mercury Cells Chlorine Production | | | | | |
| CE004 | Z017 | #7 Circuit – Chlorine Fugitives | 1957 | 208 | NA |
| | E360 | #7 Circuit – Emergency Chlorine Scrubbing | | | SC009 Caustic Scrubber |
| | Z018 | #7 Circuit Mercury Fugitives | | | NA |
| 8.0. Chlorine Dept. – Mercury Brine Treatment | | | | | |
| V889 | E037 | HCl Tank | 1958/2001 | 11,500 gal | SC007 Scrubber |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed/ Modified ¹ | Design Capacity | Control Device ² |
|---|-------------------|---------------------------------|---------------------------------------|-----------------|---|
| 8.0. Chlorine Dept. – Diaphragm Circuit Hydrogen Processing | | | | | |
| CE002 | E008 | #6 Circuit - Cell Room Seal (4) | _____ | _____ | NA |
| | E054 | #6 Circuit – Atm Seal | ----- | ----- | NA |
| | E024 | #6 Circuit – Stack (1) | | | NA |
| CE003 | E052, E035 | #8 Circuit - Cell Room Seal (2) | _____ | _____ | NA |
| | E042, E019 | #8 Circuit – Atm Seals (2) | ----- | ----- | NA |
| | E103, E104 | #8 Circuit –Stacks (2) | | | NA |
| CE002, CE003, CE004 | E340, E341 | Clean Out Vents | _____ | _____ | NA |
| | E124 | H ₂ Product Vent | ----- | ----- | CA001 or CA002 Carbon Absorbers |
| 8.0. Chlorine Dept. – No. 6 Circuit Diaphragm Cell Renewal | | | | | |
| TP061 | E036 | Slurry Vacuum Tank | ----- | ----- | NA |
| 8.0. Chlorine Dept. – Circuit #7 Mercury Hydrogen Processing | | | | | |
| CE004 | E034 | #7 Circuit - Cell Room Seal | _____ | _____ | NA |
| | E032 | #7 Circuit - Atmospheric Seal | ----- | ----- | NA |
| | E039 | #7 Circuit - Stack | | | CS020 Contact Cooler, SC005 Brine Scrubber, and SC006 Caustic Scrubber |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed/Modified ¹ | Design Capacity | Control Device ² |
|---|--------------------------|---|--------------------------------------|-----------------|---|
| 8.0. Chlorine Dept. – Mercury Cell End Boxes | | | | | |
| CE004 | E320 | #7 Circuit Cell Inlet Boxes | | | CS025, CS026, and CS027 Water Coolers; A001 and A002 Carbon Absorbers |
| | E038 | #7 Circuit Cell End Boxes | | | |
| 8.0. Chlorine Dept. – Mercury Collection | | | | | |
| T027 | E041 | Collection Tank #1 | | | NA |
| T095 | E043 | Collection Tank #2 | ---- | ---- | NA |
| 8.0. Chlorine Dept. – Chlorine Processing | | | | | |
| T035 | E105 | Sulfuric Acid Tank #1 | ---- | 14,500 gal | NA |
| T036 | E106 | Sulfuric Acid Tank #2 | ---- | 14,500 gal | NA |
| T037 | E107 | Sulfuric Acid Tank #3 | ---- | 9,400 gal | NA |
| T038 | E108 | Sulfuric Acid Tank #4 | ---- | 1,850 gal | NA |
| T039 | E109 | Sulfuric Acid Tank #5 | ---- | 7,300 gal | NA |
| 8.0. Chlorine Dept. – Sulfur Chloride | | | | | |
| --- | Powerhouse Stack #1 S076 | Tail Gas, Sniff Gas, High Pressure Blowdown | ---- | ---- | Afterscrubber SC010 |
| R881 | E101 | Chlorine Recovery Boiler | 1957 | 1.25 MM Btu/hr | NA |
| LK002 | Z015 | MeCl ₂ Fugitives | 1979 | ---- | NA |
| 8.0. Chlorine Dept. –Diaphragm Cell Renewal | | | | | |
| T078 | E044 | Vacuum Tank | ---- | ---- | KO006 |
| TP057 | E045 | Depositing Vacuum Tank | 1987 | 10,000 gal | NA |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed/Modified ¹ | Design Capacity | Control Device ² |
|---|-------------------|-----------------------------------|--------------------------------------|----------------------------|-----------------------------|
| 9.0. Cal-Hypo Department – Wetside | | | | | |
| B012 | E004 | Lime Silo #1 | 1983 | 15,600 ft ³ | FF002 Fabric Filter |
| B014 | E027 | Lime Silo #2 | 1983 | 15,600 ft ³ | FF007 Fabric Filter |
| 9.0. Cal-Hypo Department – Dryside | | | | | |
| FN003 | S001 | Stack Blower | 1983 | 52,000 ACFM | NA |
| VV001 | S001 | Vacuum Vents on Wetside Equipment | 1983 | 3,500 CFM @70 °F | SC002 Caustic Scrubber |
| FF005 | S001 | Baghouse | 1986 | 52,000 ACFM | SC002 Caustic Scrubber |
| KO002 | S001 | Knockout Tank | 1984 | 52,000 ACFM | SC002 Caustic Scrubber |
| CY003 | S001 | Secondary Cyclone | 1983 | 37,800 ACFM | SC002 Caustic Scrubber |
| CD008 | S001 | Micro Venturi | 1984 | N/A | SC002 Caustic Scrubber |
| CY002 | S001 | Primary Cyclone | 1983 | 37,800 ACFM 9,700 lb/hr | SC002 Caustic Scrubber |
| SP006 | S001 | Spinner Separator | 1983 | 14,300 lb/hr | SC002 Caustic Scrubber |
| B005 | E005 | Dry Salt Bin (vents inside bldg) | 1983 | 41.5 Ton | FF012 Filter |
| 9.0. Cal-Hypo Department – Repackaging & Cooling Tower | | | | | |
| PA002 | E031 | Pail Packaging Unit | 1983 | 3,000 lbs | FF006 Filter |
| CT002 | Z013 | Cooling Tower | 1983 | 2,000 GPM 21,000 Gal | NA |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed/ Modified ¹ | Design Capacity | Control Device ² |
|--|-------------------|---------------------------------------|---------------------------------------|--|---------------------------------------|
| 9.0. Cal-Hypo Department – NaHS Storage Tanks and Transfer Operations | | | | | |
| V448 | E993 | #3 NaHS Storage Tank | 1962 | 30,000 gal | SC073 NaHS Storage Tank Vent Scrubber |
| V449 | E993 | #4 NaHS Storage Tank | 1962 | 30,000 gal | SC073 NaHS Storage Tank Vent Scrubber |
| V994 | E993 | #6 NaHS Storage Tank | 1976 | 120,000 gal | SC073 NaHS Storage Tank Vent Scrubber |
| V1035 | E993 | #7 NaHS Storage Tank | 1980 | 200,000 gal | SC073 NaHS Storage Tank Vent Scrubber |
| V3126 | E993 | #8 NaHS Storage Tank | 1992 | 204,750 gal | SC073 NaHS Storage Tank Vent Scrubber |
| LU160/ LU174 | E993 | NaHS Tank Car/ Tank Truck Transfer | | | SC073 NaHS Storage Tank Vent Scrubber |
| SP018 | | Rock Separator | 2017 | 270gal | |
| SP017 | E427 | H ₂ S Stripper | 2017 | 2,650 gal (1,600 gal/min raw brine) | SC080 Wet Scrubber |
| 10.0. Caustic Department | | | | | |
| CT003 | Z016 | Cooling Tower | 1969 | 120,000 gal | NA |
| V023 | E110 | Acid Tank for Ph Control | 1995 | 14,528 gal | SC019 Scrubber |
| V024 | E110 | Acid Tank for Ph Control | 1995 | 14,528 gal | SC019 Scrubber |
| V706 | | Ammonia Storage Tank | 1946/replaced 2022 | 18,000 gal | NA |
| V042 | E998 | Metal Cells Spent Acid Tank | 2011 (new) | 7,350 gal | SC162 Scrubber |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed/ Modified ¹ | Design Capacity | Control Device ² |
|---|-------------------|--|---------------------------------------|--------------------------|---|
| V027 | E998 | Metal Cells Acid Tank | 2011 (modified) | 1,600 gal | SC162 Scrubber |
| SC162 | E998 | Metal Cells Tanks Scrubber | 2011 (new) | 99.9% removal efficiency | NA |
| HE022; HE023 | E049 | Preheaters | 1988 | 450 gal | Seal Pot (vents only under upset conditions) |
| HE025 | E050 | Heater | 1988 | 180 gal | Seal Pot (vents only under upset conditions) |
| CL011 | E051 | NH ₃ Absorber | 1997 | 180 gal | Seal Pot (vents only under upset conditions) |
| 11.0. PELS™ Department | | | | | |
| CN002 | E624 | Anhydrous Concentrator | 1975 | 210 tpd | DE001 Mesh Pad |
| V003 | E963 | Molten Salt Storage Tank | 1975 | 5,000 gal | NA |
| R900 | E629 | Molten Salt Furnace | 1975 | 15 mmbtu/hr | Elevated Stack |
| CT001 | Z010 | PELS Cooling Tower | 1968 | 3,000 gpm | NA |
| TR062 | E302 | Prill Tower | 1975 | 210 tpd | SC068 Scrubber |
| LU002 | E070 | Product Packing and Loading | 1975 | 210 tpd | SC069 Scrubber |
| 12.0. Plant Paint Spray Booth | | | | | |
| PB001 | E020, E021 | Paint Spray Booth | | | FF013, FF014 Filter |
| 13.0. Emergency Generators and Pumps | | | | | |
| G001 | E1000 | Area 10 Emergency Generator (compression ignition) | 1984 | 235 horsepower | NA |
| G002 | E1001 | East Area Emergency Generator (compression ignition) | 1984 | 235 horsepower | NA |
| G003 | E1002 | West Chlorine Dry Air Emergency Generator (compression ignition) | 1999 | 250 horsepower | NA |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed/Modified¹ | Design Capacity | Control Device² |
|-------------------------|--------------------------|---|--|------------------------|-----------------------------------|
| G004 | E1003 | Cal-Hypo Fire Water Pump (compression ignition) | 1981 | 235 horsepower | NA |
| G005 | E1004 | HCl Fire Water Pump (compression ignition) | 2002 | 235 horsepower | NA |

1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

| Permit Number | Date of Issuance |
|----------------------|-------------------------|
| R13-1664 | 12/20/1993 |
| R13-2046G | 8/1/2013 |
| R13-2886 | 10/28/2011 |
| R13-3328A | 3/17/2020 |
| R14-0027F | 3/19/2018 |

2.0 General Conditions

2.1 Definitions

- 2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.39.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.
- 2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the monthly data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months.

2.2 Acronyms

| | | | |
|---------------------------------------|---|------------------------|---|
| CAAA | Clean Air Act Amendments | NSPS | New Source Performance Standards |
| CBI | Confidential Business Information | PM | Particulate Matter |
| CEM | Continuous Emission Monitor | PM₁₀ | Particulate Matter less than 10µm in diameter |
| CES | Certified Emission Statement | pph | Pounds per Hour |
| C.F.R. or CFR | Code of Federal Regulations | ppm | Parts per Million |
| CO | Carbon Monoxide | PSD | Prevention of Significant Deterioration |
| C.S.R. or CSR | Codes of State Rules | psi | Pounds per Square Inch |
| DAQ | Division of Air Quality | SIC | Standard Industrial Classification |
| DEP | Department of Environmental Protection | SIP | State Implementation Plan |
| FOIA | Freedom of Information Act | SO₂ | Sulfur Dioxide |
| HAP | Hazardous Air Pollutant | TAP | Toxic Air Pollutant |
| HON | Hazardous Organic NESHAP | TPY | Tons per Year |
| HP | Horsepower | TRS | Total Reduced Sulfur |
| lbs/hr or lb/hr | Pounds per Hour | TSP | Total Suspended Particulate |
| LDAR | Leak Detection and Repair | USEPA | United States Environmental Protection Agency |
| m | Thousand | UTM | Universal Transverse Mercator |
| MACT | Maximum Achievable Control Technology | VEE | Visual Emissions Evaluation |
| mm | Million | VOC | Volatile Organic Compounds |
| mmBtu/hr | Million British Thermal Units per Hour | | |
| mmft³/hr or mmcf/hr | Million Cubic Feet Burned per Hour | | |
| NA or N/A | Not Applicable | | |
| NAAQS | National Ambient Air Quality Standards | | |
| NESHAPS | National Emissions Standards for Hazardous Air Pollutants | | |
| NO_x | Nitrogen Oxides | | |

2.3. Permit Expiration and Renewal

- 2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.
[45CSR§30-5.1.b.]
- 2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.
[45CSR§30-4.1.a.3.]
- 2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.
[45CSR§30-6.3.b.]
- 2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.
[45CSR§30-6.3.c.]

2.4. Permit Actions

- 2.4.1. This 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 of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[45CSR§30-5.1.f.3.]

2.5. Reopening for Cause

- 2.5.1. This permit shall be reopened and revised under any of the following circumstances:
- a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.
 - b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.
 - c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
 - d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

- 2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.
[45CSR§30-6.4.]

2.7. Minor Permit Modifications

- 2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.
[45CSR§30-6.5.a.]

2.8. Significant Permit Modification

- 2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.
[45CSR§30-6.5.b.]

2.9. Emissions Trading

- 2.9.1. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit and that are in accordance with all applicable requirements.
[45CSR§30-5.1.h.]

2.10. Off-Permit Changes

- 2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:
- a. The change must meet all applicable requirements and may not violate any existing permit term or condition.
 - b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.
 - c. The change shall not qualify for the permit shield.
 - d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.
 - e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.

- f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

[45CSR§30-5.9.]

2.11. Operational Flexibility

- 2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.

[45CSR§30-5.8]

- 2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.

[45CSR§30-5.8.a.]

- 2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:

- a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or
- b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

[45CSR§30-5.8.c.]

- 2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

[45CSR§30-2.40]

2.12. Reasonably Anticipated Operating Scenarios

- 2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.
- a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.
 - b. The permit shield shall extend to all terms and conditions under each such operating scenario; and
 - c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

[45CSR§30-5.1.i.]

2.13. Duty to Comply

- 2.13.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

[45CSR§30-5.1.f.1.]

2.14. Inspection and Entry

- 2.14.1. The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:
- a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
 - d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

- 2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:
- a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and
 - b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

- 2.16.1. 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 this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

[45CSR§30-5.1.f.2.]

2.17. Reserved

2.18. Federally-Enforceable Requirements

- 2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.

[45CSR§30-5.2.a.]

- 2.18.2. Those provisions specifically designated in the permit as "State-enforceable only" shall become "Federally-enforceable" requirements upon SIP approval by the USEPA.

2.19. Duty to Provide Information

- 2.19.1. The permittee shall furnish to the Secretary within a reasonable time any information the Secretary 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 Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

[45CSR§30-5.1.f.5.]

2.20. Duty to Supplement and Correct Information

- 2.20.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

[45CSR§30-4.2.]

2.21. Permit Shield

- 2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof.

[45CSR§30-5.6.a.]

- 2.21.2. Nothing in this permit shall alter or affect the following:

- a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or
- b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.
- c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

2.22. Credible Evidence

- 2.22.1. Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.

[45CSR§30-5.3.e.3.B.]

2.23. Severability

- 2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect.

[45CSR§30-5.1.e.]

2.24. Property Rights

- 2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege.

[45CSR§30-5.1.f.4]

2.25. Acid Deposition Control

- 2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.
- a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.
 - b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.
 - c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

- 2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.

[45CSR§30-5.1.a.2.]

3.0 Facility-Wide Requirements

3.1 Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1. [45CSR§6-3.1.]
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause or allow any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible. [45CSR§6-3.2.]
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them. [40 C.F.R. §61.145(b) and 45CSR34]
- 3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public. [45CSR§4-3.1 State-Enforceable only.]
- 3.1.5. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11. [45CSR§11-5.2]
- 3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality. [W.Va. Code § 22-5-4(a)(14)]
- 3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.

- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.

[40 C.F.R. 82, Subpart F]

- 3.1.8. **Risk Management Plan.** This stationary source, as defined in 40 C.F.R. § 68.3, is subject to Part 68. This stationary source shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. Part 68.10. This stationary source shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.

[40 C.F.R. 68]

- 3.1.9. The Company agrees that at all times, including periods of source start-up, shutdown, and malfunction, that it will, to the extent possible, maintain and operate all sources of sulfur dioxide emissions, including associated air pollution equipment, in a manner consistent with good air pollution control practice for minimizing emissions.

[CO-SIP-C-2003-27 § IV.2.]

- 3.1.10. **Fugitive Haulroad Emissions.** The owner or operator of a plant shall maintain particulate matter control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures. Good operating practices shall be implemented and when necessary particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment.

[45CSR§7-5.2]

3.2. Monitoring Requirements

- 3.2.1. **Commencement of operation** – The permittee shall conduct the monitoring required under 40 C.F.R. Part 64 upon issuance of this permit that includes such monitoring.

[40 C.F.R. §§64.7(a) and 64.6(c)(3); 45CSR§30-5.1.c. (SC018, SC022, SC023, SC160, SC080)]

- 3.2.2. **Proper Maintenance** – At all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

[40 C.F.R. §§64.7(b) and 64.6(c)(3); 45CSR§30-5.1.c. (SC018, SC022, SC023, SC160, SC080)]

- 3.2.3. **Continued Operation** – Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of 40 C.F.R. Part 64, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

[40 C.F.R. §§64.7(c) and 64.6(c)(3); 45CSR§30-5.1.c. (SC018, SC022, SC023, SC160, SC080)]

3.2.4. **Documentation of Need for Improved Monitoring** – After approval of monitoring under 40 C.F.R. Part 64, if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Director and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[40 C.F.R. §§64.7(e) and 64.6(c)(3); 45CSR§30-5.1.c. (SC018, SC022, SC023, SC160, SC080)]

3.2.5. **Quality Improvement Plan (QIP)** – Based on the results of a determination made under §64.7(d)(2) (Response to excursions or exceedances, permit condition 3.4.4.(2)), the Administrator or the Director may require the permittee to develop and implement a QIP. If a QIP is required, then it shall be developed, implemented, and modified as required according to 40 C.F.R. §§ 64.8(b) through (e). Refer to permit condition 3.5.10.(2)(iii) for the reporting required when a QIP is implemented.

[40 C.F.R. §§64.8 and 64.6(c)(3); 45CSR§30-5.1.c. (SC018, SC022, SC023, SC160, SC080)]

3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

- a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.
- b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.
- c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests.

This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

- d. The permittee shall submit a report of the results of the stack test within 60 days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:
 1. The permit or rule evaluated, with the citation number and language.
 2. The result of the test for each permit or rule condition.
 3. A statement of compliance or non-compliance with each permit or rule condition.

[WV Code §§ 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

- 3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:
 - a. The date, place as defined in this permit and time of sampling or measurements;
 - b. The date(s) analyses were performed;
 - c. The company or entity that performed the analyses;
 - d. The analytical techniques or methods used;
 - e. The results of the analyses; and
 - f. The operating conditions existing at the time of sampling or measurement.

[45CSR§30-5.1.c.2.A.]

[45CSR13, R13-2046, 4.4.1.] (*HCl Dept. – Permit Section 7.0*)

[45CSR13, R13-2886, 4.4.1.] (*Caustic Dept. – Tanks V042 and V027; and Scrubber SC162*)

[45CSR13, R14-0027, 4.4.1.] (*Power Dept. Boilers – Permit Section 4.0*)

[45CSR13, R13-3328, 4.4.1.] (*Flare FLO03 in condition 6.2.1., and Wet Scrubber SC080 in condition 9.2.2.*)

- 3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

Where appropriate, records may be maintained in computerized form in lieu of the above records.
[45CSR§30-5.1.c.2.B.]

- 3.4.3. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.

[45CSR§30-5.1.c. State-Enforceable only.]

- 3.4.4. **Response to Excursions or Exceedances**

(1) Upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(2) Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

[40 C.F.R. §§64.7(d) and 64.6(c)(3); 45CSR§30-5.1.c. (SC018, SC022, SC023, SC160, SC080)]

- 3.4.5. **General recordkeeping requirements for 40 C.F.R. 64 (CAM).** The permittee shall comply with the recordkeeping requirements specified in permit conditions 3.4.1. and 3.4.2. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 (permit condition 3.2.5.) and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 C.F.R. 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

[40 C.F.R. §§64.9(b) and 64.6(c)(3); 45CSR§30-5.1.c. (SC018, SC022, SC023, SC160, SC080)]

3.5. Reporting Requirements

- 3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

[45CSR§§30-4.4. and 5.1.c.3.D.]

- 3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.

[45CSR§30-5.1.c.3.E.]

- 3.5.3. Except for the electronic submittal of the annual compliance certification and semi-annual monitoring reports to the DAQ and USEPA as required in 3.5.5 and 3.5.6 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class or by private carrier with postage prepaid to the address(es), or submitted in electronic format by e-mail as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

US EPA:

Section Chief
U. S. Environmental Protection Agency, Region III
Enforcement and Compliance Assurance Division
Air, RCRA and Toxics Branch (3ED21)
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, PA 19103-2852

DAQ Compliance and Enforcement¹:

DEPAirQualityReports@wv.gov

¹For all self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols, Notice of Compliance Status reports, Initial Notifications, etc.

- 3.5.4. **Fees.** The permittee shall pay fees on an annual basis in accordance with 45CSR§30-8. **[45CSR§30-8.]**
- 3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification. The annual certification shall be submitted in electronic format by e-mail to the following addresses:

DAQ:

DEPAirQualityReports@wv.gov

US EPA:

R3_APD_Permits@epa.gov

[45CSR§30-5.3.e.]

- 3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4.

The semi-annual monitoring reports shall be submitted in electronic format by e-mail to the following address:

DAQ:
DEPAirQualityReports@wv.gov

[45CSR§30-5.1.c.3.A.]

3.5.7. **Reserved.**

3.5.8. **Deviations.**

a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:

1. Reserved.
2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or email. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.
3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.
4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C.]

b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.

[45CSR§30-5.1.c.3.B.]

3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.

[45CSR§30-4.3.h.1.B.]

3.5.10. **General reporting requirements for 40 C.F.R. 64 (CAM)**

- (1) On and after the date specified in 40 C.F.R. §64.7(a) by which the permittee must use monitoring that meets the requirements of 40 C.F.R. 64, the permittee shall submit monitoring reports to the DAQ in accordance with permit condition 3.5.6.
- (2) A report for monitoring under 40 C.F.R. 64 shall include, at a minimum, the information required under permit condition 3.5.8. and the following information, as applicable:

- (i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
- (ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
- (iii) A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R. §64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. §§64.9(a) and 64.6(c)(3); 45CSR§30-5.1.c.; (SC018, SC022, SC023, SC160, SC080)]

3.6. Compliance Plan

3.6.1. Reserved.

3.7. Permit Shield

- 3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.
- 3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.
 - a. **45CSR3** – *To Prevent and Control Air Pollution from the Operation of Hot Mix Asphalt Plants*: This regulation is not applicable to this facility because the facility is not a hot mix asphalt plant.
 - b. **45CSR17** – *To Prevent and Control Particulate Air Matter Pollution from Materials Handling, Preparation, Storage and Other Sources of Fugitive Particulate Matter*: The facility is subject to 45CSR2 and 45CSR7 in lieu of 45CSR17.
 - c. **45CSR21** – *Regulation to Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds*: This regulation is not applicable to this facility because the facility is not located in Putnam, Kanawha, Cabell, Wayne, or Wood counties.
 - d. **40 C.F.R. 60, Subpart D** – *Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971*: The maximum design heat inputs of Boilers No. 4 and 5 are 540 and 999 mmBtu/hr, respectively, which exceed this subpart’s applicability threshold of 250 mmBtu/hr. However, they are not subject to this subpart because they were constructed prior to August 17, 1971 and have not been modified or undergone “reconstruction” (as defined in 40 C.F.R. §60.15(b)) since. The maximum design heat input of Boiler No. 6 is 182 mmBtu/hr which is less than the applicable threshold of 250 mmBtu/hr; therefore, No. 6 Boiler is not subject to this subpart.
 - e. **40 C.F.R. 60, Subpart Da** – *Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978*: This subpart applies to Electric Utility Steam Generating Units only. The maximum design heat input of Boiler No. 6 is 182 mmBtu/hr which is less than the applicable threshold of 250 mmBtu/hr. Boiler Nos. 4, 5, and 6 do not sell more than one-third of their potential electric output capacity and more than 25 MW electrical output to any utility

power distribution system for sale and are not classified as electrical utility steam-generating units subject to this part.

- f. **40 C.F.R. 60, Subpart VV** – *Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry*: Hydrochloric Acid (HCl) is the only remaining Hazardous Air Pollutant emitted from the former MCB Process Area (re-named the HCl Production Area). HCl is not on the list of chemicals to which this Subpart applies (40 CFR §60.489); therefore, references to this Subpart have been removed.
- g. **40 C.F.R. 60, Subpart NNN** – *Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations*. A continuous flow to the atmosphere from a pressure relief valve on the Benzene Emissions/Vent Scrubber (emission point 017) originally triggered Subpart NNN. Benzene is no longer in use at this facility and this regulation is not applicable because organic chemicals are no longer manufactured at this facility.
- h. **40 C.F.R. 61, Subpart J** – *National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene*. This regulation is not applicable to the facility because benzene is no longer utilized at this facility.
- i. **40 C.F.R. 61, Subpart V** – *National Emission Standard for Equipment Leaks (Fugitive Emission Sources)*. No equipment covered by this Subpart is in use at this facility.
- j. **40 C.F.R. Part 61, Subpart Y** – *National Emission Standard for Benzene Emissions From Benzene Storage Vessels*. This regulation is not applicable because benzene is no longer utilized at this facility.
- k. **40 C.F.R. Part 61, Subpart FF** – *National Emission Standard for Benzene Waste Operations*. This regulation is not applicable because benzene is no longer utilized at this facility.
- l. **40 C.F.R. 63, Subpart Q** – *National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers*: This regulation is not applicable because no chromium-based water treatment chemicals are used to condition the recirculation water in the cooling tower.
- m. The facility is not subject to Title IV of the Clean Air Act, therefore requirements of Section 2.25., “Acid Deposition Control” are not applicable and the permittee is not required to certify compliance with them.
- n. **40 C.F.R. Part 63, Subpart NNNNN** – *National Emission Standards for Hazardous Air Pollutants for Hydrochloric Acid Production*. The permittee does not have a hydrochloric acid production area. However, #1, #2 and #3 HCl Synthesis Unit (SU004, SU005, SU006) and the associated equipment installed for the unit are not subject to the MACT. This process is exempted in 40 C.F.R. §63.8985(d) as it produces HCl through the Direct synthesis of hydrogen and chlorine and is part of a chlor-alkali facility.
- o. **40 C.F.R. Part 97, Subparts AAAAA, CCCCC, and EEEEE** – *CSAPR NO_x Annual Trading Program, CSAPR NO_x Ozone Season Group 2 Trading Program, and CSAPR SO₂ Group 1 Trading Program*. A portion of the electricity produced is pushed back to the electrical grid for a credit; however, the amount of electricity pushed back to the electrical grid is less than one-third of the unit’s potential electrical output capacity and 219,000 MWh. Therefore, these regulations are not applicable since the criteria in 40 C.F.R. §§ 97.404(b)(1)(i)(B), 97.804(b)(1)(i)(B), and 97.604(b)(1)(i)(B) are not met.

4.0. Requirements for Power Department Boilers, Emission Points: S076 – Boilers No. 4 and 6; S482 – Boiler No. 5; and S200 – Rental Boiler

4.1. Limitations and Standards

4.1.1. The following conditions and requirements are specific to No. 4 Boiler (ID #R015):

- a. The boiler shall not exceed the following emission limitations:
 - i. CO emissions emitted to the atmosphere from the boiler shall not exceed 0.0646 pounds per MMBtu. A new 30-day rolling average emission rate shall be determined on a daily basis and shall be calculated as the average of all the hourly CO emission data for the preceding 30 steam generating unit operating days.
 - ii. NO_x emissions emitted to the atmosphere from the boiler shall not exceed 0.16 pounds per MMBtu. A new 30-day rolling average emission rate shall be determined on a daily basis and shall be calculated as the average of all the hourly NO_x emission data for the preceding 30 steam generating unit operating days.
- b. The boiler shall only be fired with hydrogen gas, natural gas, or any combination of these two fuels. Compliance with this condition satisfies compliance with the limitations of 45CSR§2-3.1. (incorporated under Condition 4.1.5.), 45CSR§2-4.1.b. (48.6 lb/hr of PM), and 45CSR§10-3.1.e. (1,674 lb/hr of SO₂); and the requirement of 45CSR§2-8.1.a., 45CSR§2-8.2., and Section 8 of 45CSR10. **[45CSR§§2-3.1., 4.1.b., 8.1.a., 8.2., and 8.4.b.; 45CSR§2A-3.1.a.; 45CSR§§10-3.1.e. and 10.3.; 45CSR§10A-3.1.b.]**
- c. The 24-hour average heat input of the boiler shall be no greater than 540 MMBtu/hr. Compliance with this limit for the boiler shall be satisfied by limiting the annual total heat input into the unit to 4,730,400 MMBtu on 12 month rolling total basis.

[45CSR14, R14-0027, 4.1.1.]

4.1.2. The following conditions and requirements are specific to No. 5 Boiler (ID #R072):

- a. The boiler shall not exceed the following emission limitations:
 - i. CO emissions emitted to the atmosphere from the boiler shall not exceed 0.0488 pounds per MMBtu. A new 30-day rolling average emission rate shall be determined on a daily basis and shall be calculated as the average of all the hourly CO emission data for the preceding 30 steam generating unit operating days.
 - ii. NO_x emissions emitted to the atmosphere from the boiler shall not exceed 0.16 pounds per MMBtu. A new 30-day rolling average emission rate shall be determined on a daily basis and shall be calculated as the average of all the hourly NO_x emission data for the preceding 30 steam generating unit operating days.
- b. The boiler shall only be fired with “natural gas” as defined in 45CSR§10A-2.7. Compliance with this condition satisfies compliance with the limitations of 45CSR§2-3.1. (incorporated under Condition 4.1.5.), 45CSR§2-4.1.b. (89.9 lb/hr of PM), 45CSR§10-3.1.e. (3,097 lb/hr of SO₂); and the requirement of 45 CSR §2-8.1.a., 45 CSR §2-8.2., and Section 8 of 45CSR10. **[45CSR§§2-3.1., 4.1.b., 8.1.a., 8.2., and 8.4.b.; 45CSR§2A-3.1.a.; 45CSR§§10-3.1.e. and 10.3.; 45CSR§10A-3.1.b.]**

- c. The 24- hour average heat input of the boiler shall be no greater than 999 MMBtu/hr. Compliance with this limit for the boiler shall be satisfied by limiting the annual total heat input into the unit to 8,751,240 MMBtu on 12 month rolling total basis.

[45CSR14, R14-0027, 4.1.2.]

- 4.1.3. The following conditions and requirements are specific to No. 6 Boiler (ID #R097):

- a. The boiler shall not exceed the following emission limitations:

- i. CO emissions emitted to the atmosphere from the boiler shall not exceed 0.0337 pounds per MMBtu. A new 30-day rolling average emission rate shall be determined on a daily basis and shall be calculated as the average of all the hourly CO emission data for the preceding 30 steam generating unit operating days.
- ii. NO_x emissions emitted to the atmosphere from the boiler shall not exceed 0.04 pounds per MMBtu. A new 30-day rolling average emission rate shall be determined on a daily basis and shall be calculated as the average of all the valid hourly NO_x emission data for the preceding 30 steam generating unit operating days.

Compliance with this more stringent NO_x limitation ensures compliance with the applicable NO_x limit of 0.20 lb/MMBtu in 40 C.F.R. §60.44b(a) for a high heat release rate unit.

[40 C.F.R. §§60.44b(a), (h), and (i); 45CSR16]

- b. The boiler shall only be fired with hydrogen gas, natural gas or any combination of these two fuels. Compliance with this condition satisfies compliance with the limitations of 45CSR§2-3.1. (incorporated under Condition 4.1.5.), 45CSR§2-4.1.b. (16.4 lb/hr of PM), 45CSR§10-3.1.e. (564 lb/hr of SO₂); and the requirement of 45 CSR §2-8.1.a., 45 CSR §2-8.2., and Section 8 of 45CSR10.

[45CSR§§2-3.1., 4.1.b., 8.1.a., 8.2., and 8.4.b.; 45CSR§2A-3.1.a.; 45CSR§§10-3.1.e. and 10.3.; 45CSR§10A-3.1.b.]

- c. The 24-hour average heat input of boiler shall be no greater than 182 MMBtu/hr. Compliance with this limit for the boiler shall be satisfied by limiting the annual total heat input into the unit by 1,594,320 MMBtu on 12 month rolling total basis.

[45CSR14, R14-0027, 4.1.3.]

- 4.1.4. The hydrogen gas to be fired in Nos. 4 and 6 Boilers shall not have a concentration of greater than 20 micrograms of mercury per cubic meters of gas on a 3-hour average basis. The hydrogen gas meeting this standard is classified as an “other gas 1 fuel” under Subpart DDDDD of Part 63.

[45CSR14, R14-0027, 4.1.4.; 40 C.F.R. §§ 63.7575 and 63.7540(c)(1); 45CSR34]

- 4.1.5. Visible emissions from each of these emission points S076 (Stack for Nos. 4 & 6 Boilers) and S482 (No. 5 Boiler) shall not be greater than ten (10) percent opacity based on a six minute block average.

[45CSR14, R14-0027, 4.1.5.; 45CSR§2-3.1.]

- 4.1.6. Nos. 4, 5, and 6 Boilers shall be equipped, maintained, and operated with an oxygen trim system that maintains an optimum air to fuel ratio for each unit. Such system shall be installed prior to initial start-up of the unit from the conversion to natural gas retrofit.

[45CSR14, R14-0027, 4.1.6.; 40 C.F.R. §63.7575; 45CSR34]

- 4.1.7. The initial tune-up and subsequent tune-ups for the boilers shall be conducted in accordance with the following timing and tune-up requirements:
- a. The initial tune-up for the No. 4 Boiler shall be completed by no later than 30 calendar days after the initial start-up from the natural gas conversion of the unit.
[40 C.F.R. §§ 63.7510(j) and 63.7495(h); 45CSR34]
 - b. Subsequent tune-ups shall be completed no later than 61 months after previous tune-up. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.
[40 C.F.R. §§ 63.7515(d) and 63.7540(a)(13); 45CSR34]
 - c. Each tune-up shall consist of the following:
 - i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (permittee may delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;
 - ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
 - iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown);
 - iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, which includes the manufacturer's NO_x concentration specification taken in consideration; and
 - v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.
 - vi. Maintain on-site and submit, if requested by the Administrator, a report containing the information in paragraphs (A) through (C) of this condition 4.1.7.c.vi.
 - (A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
 - (B) A description of any corrective actions taken as a part of the tune-up; and
 - (C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.
 - d. If your boiler or process heater has a continuous oxygen trim system that maintains an optimum air to fuel ratio, you must conduct a tune-up of the boiler or process heater every 5 years as specified in paragraphs (a)(10)(i) through (vi) of §63.7540 (condition 4.1.7.c.i. through vi.) to demonstrate continuous compliance.

- e. You may delay the burner inspection specified in paragraph (a)(10)(i) of §63.7540 (condition 4.1.7.c.i.) until the next scheduled or unscheduled unit shutdown, but you must inspect each burner at least once every 72 months.
- f. If an oxygen trim system is utilized on a unit without emission standards to reduce the tune-up frequency to once every 5 years, set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up.

**[45CSR14, R14-0027, 4.1.7.; 40 C.F.R. §63.7500(a)(1), §63.7505(a), §63.7515(d), §§63.7540(a)(10)(i) through (vi), §63.7540(a)(12), and §63.7540(a)(13), and Item #1 of Table 3 to Subpart DDDDD of Part 63—Work Practice Standards; 45CSR34]
 (No. 4 Boiler (R015), No. 5 Boiler (R072), No. 6 Boiler (R097), and Rental Boiler (R200))**

4.1.8. The Rental Boiler, identified as R200, shall meet the following requirements

- a. The Rental Boiler shall be a Babcock & Wilcox Model RB-747, shall not exceed an aggregate MDHI of 99.9 MMBtu/hr, shall only be fired by pipeline-quality natural gas⁽³⁾ (PNG), shall utilize Low-NO_x Burner technology, and shall not exceed those emission limits given in the following table:

| Rental Boiler Emission Limits Pollutant | PPH | TPY |
|--|---------------------|------------|
| CO | 7.49 | 32.82 |
| NO_x | 3.65 | 15.97 |
| PM_{2.5} / PM₁₀ / PM⁽¹⁾ | 0.50 ⁽²⁾ | 2.19 |
| VOCs | 0.40 | 1.75 |

⁽¹⁾ Includes condensable particulate matter.

⁽²⁾ Compliance with this limitation ensures compliance with the 45CSR§2-4.1.b. PM limit of 8.99 lb/hr.

⁽³⁾ Compliance with this fuel requirement ensures compliance with the 45CSR§10-3.1.e. SO₂ limit of 309.69 lb/hr.

[45CSR§2-4.1.b.; 45CSR§10-3.1.e.]

- b. As the annual emissions are based on 8,760 hours of operation, there is no annual limit on hours of operation or natural gas combusted on an annual basis for the Rental Boiler.
- c. Visible emissions from boiler R200 shall not be greater than ten (10) percent opacity based on a six-minute block average. Compliance with this limitation is satisfied when the unit is only operating on natural gas.
[45CSR§2-3.1. and 8.4.b.; 45CSR§2A-3.1.a.]
- d. Within 180 days after restarting No. 4 Boiler, the permittee shall shutdown and remove the Boiler Identified as R200 from the facility. Restart-up of No. 4 Boiler is defined as the first instance that steam for No. 4 Boiler is allowed to be introduced into the common header.
[45CSR§14-2.46.h.]

[45CSR14, R14-0027, 4.1.8.]

- 4.1.9. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.1 (*i.e.*, 4.0 Power Department) and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR14, R14-0027, 4.1.9.; 45CSR§13-5.10.]
- 4.1.10. At all times, you must operate and maintain any affected source (as defined in 40 C.F.R. §63.7490), 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 Administrator that 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 source.
[40 C.F.R. §63.7500(a)(3); 45CSR34] (No. 4 Boiler, No. 5 Boiler, No. 6 Boiler, Rental Boiler R200)
- 4.1.11. For new or reconstructed affected sources (as defined in §63.7490), you must demonstrate initial compliance with the applicable work practice standards in Table 3 to this subpart within the applicable annual, biennial, or 5-year schedule as specified in §63.7515(d) following the initial compliance date specified in §63.7495(a). Thereafter, you are required to complete the applicable annual, biennial, or 5-year tune-up as specified in §63.7515(d).
[40 C.F.R. §63.7510(g); 45CSR34] (Rental Boiler R200)
- 4.1.12. For affected sources, as defined in §63.7490, that switch subcategories consistent with §63.7545(h) after the initial compliance date, you must demonstrate compliance within 60 days of the effective date of the switch, unless you had previously conducted your compliance demonstration for this subcategory within the previous 12 months.
[40 C.F.R. §63.7510(k); 45CSR34] (No. 4 Boiler)

4.2. Monitoring Requirements

- 4.2.1. For No. 4 Boiler, the permittee shall install, operate, certify, and maintain NO_x-diluent system, and CO continuous emissions monitoring system in accordance with the applicable Performance Specifications under Appendix B to Part 60 of Chapter 40 for CO and Part 75 of Chapter 40 for NO_x, and diluent gas; and the procedures specified in Appendix D of 40 CFR 75 for determining the hourly heat input of the unit. Such monitor system shall include an automated data acquisition and handling system (DAHS). All required certification tests of the monitoring system must be completed no later than 90 unit operating days or 180 calendar days (whichever is sooner) after initial start-up from the natural gas conversion project.
[45CSR§40-6.1. and 40 C.F.R. §§ 75.70 and 75.71]

For Using PEMS for NO_x and CO compliance

If the permittee elects to use an alternative monitoring system, such as a predictive emission monitoring system (PEMS), in the lieu of CEMS for the purposes of demonstrating compliance with the NO_x and CO emissions limits in Condition 4.1.1., the permittee must perform the following to demonstrate that the alternative monitoring system has the same or better precision, reliability, accessibility, and timeliness as that provided by the CEMS:

- a. F-test, Correlation Analysis, and a t-test for bias in accordance with 40 CFR §75.41 using a minimum of 720 hours of paired data sets.
[40 CFR §75.41]

- b. The reliability of the system shall be capable of providing valid 1-hour averages for 95.0 percent or more of unit operating hours over a 1-year period and that the system meet the applicable requirements of Appendix B of 40 CFR 75.
[40 CFR §75.42]
- c. The accessibility of the system that the system can provide reports and onsite records of emission data to demonstrate the alternative monitoring system provides data meeting the requirements of Subpart F and G of 40 CFR 75.
[40 CFR §75.43]
- d. The timeliness of the system can meet the requirements of Subpart F and G of 40 CFR 75; can provide a continuous, quality-assured, permanent record of the certified emission data on an hourly basis; and can issue a record of data for the previous day within 24 hours.
[40 CFR §75.44]
- e. The permittee shall either demonstrate that daily test equivalent to those specified in Appendix B of 40 CFR 75 can be performed on the alternative system or demonstrate and document that such tests are unnecessary for providing quality-assured data.
[40 CFR §75.45]
- f. The permittee shall demonstrate that all missing data can be accounted for in a manner consistent with the applicable missing data procedures in Subpart D of 40 CFR 75.
[40 CFR §75.46]

The permittee may elect to use an alternative monitoring system, which is referred as a predictive emission monitoring system (PEMS), in lieu of CEMS. Prior to using PEMS to solely measure hourly NOx emissions, the permittee must have filed a petition to the Administrator for approval and to certify the alternative monitoring system. Such petition must contain the information outlined in 40 CFR §75.48. For using an alternative monitoring system to determine the CO emissions, the permittee must demonstrate to the Director that the system meets the specification outlined in Performance Specification 16 or
[45CSR§40-6.1., 40 C.F.R. §§ 75.70(h)(1), 75.66(d), and 75.48]

The permittee must calculate and record an hourly average or heat input average (respective to the terms of the emission limit for the corresponding pollutant) emission rate on a daily basis for each pollutant identified in this condition for the boiler. CEMS unit conforming to the specifications of 40 CFR Part 75 shall use unbiased, un-substituted data to demonstrate compliance with the limits as specified in this permit.

For purposes of calculating data averages, the permittee cannot use data recorded during periods of monitoring malfunctions, associated repairs, out-of-control periods, required quality assurance or control activities. The permittee must use all the data collected during all other periods in assessing compliance with the emission limit permitted in Condition 4.1.1. Any periods for which the monitoring system is out of control and data are not available for required calculations constitute a deviation from the monitoring requirements. Records of all data collected, calibrations, calibration checks, relative accuracy tests, maintenance performed, and malfunctions of the CEMS/PEMS shall be maintained in accordance with Condition 3.4.2. of this permit.
[45CSR14, R14-0027, 4.2.1.]

- 4.2.2. For No. 5 Boiler, the permittee shall install, operate, certify and maintain a continuous emission monitoring system (CEMS) for measuring NO_x, CO, and diluent gas (CO₂ or O₂) from the exhaust of No. 5 Boiler in accordance with the applicable Performance Specifications under Appendix B to Part 60 of Chapter 40 for CO and Part 75 of Chapter 40 for NO_x, and diluent gas. Such monitoring system shall include an automated data acquisition and handling system (DAHS). All required certification tests of the monitoring system must be completed no later than 90 unit operating days or 180 calendar days (whichever is sooner) after initial start-up from the natural gas conversion project.

[45CSR§40-6.1. and 40 C.F.R. §§ 75.70 and 75.71]

The permittee may elect to use a predictive emission monitoring system (PEMS) as an alternative monitoring system in lieu of CEMS. Using PEMS, the permittee must have this alternative monitoring system certified under the applicable procedures of Subpart E of 40 CFR 75 and approved by the USEPA Administrator.

The permittee must calculate and record an hourly average or heat input average (respective to the terms of the emission limit for the corresponding pollutant) emission rate on a daily basis for each pollutant identified in this condition for the boiler. CEMS unit conforming to the specifications of 40 CFR Part 75 shall use unbiased, un-substituted data to demonstrate compliance with the limits as specified in this permit.

For purposes of calculating data averages, the permittee cannot use data recorded during periods of monitoring malfunctions, associated repairs, out-of-control periods, required quality assurance or control activities. The permittee must use all the data collected during all other periods in assessing compliance with the emission limit permitted in Condition 4.1.2. Any periods for which the monitoring system is out of control and data are not available for required calculations constitute a deviation from the monitoring requirements. Records of all data collected, calibrations, calibration checks, relative accuracy tests, maintenance performed, and malfunctions of the CEMS/PEMS shall be maintained in accordance with Condition 3.4.2. of this permit.

[45CSR§40-6.1. and 40 C.F.R. §75.70. and 75.73 (NO_x Monitoring)]

[45CSR14, R14-0027, 4.2.2.]

- 4.2.3. For No. 6 Boiler post conversion to natural gas, the permittee shall install, operate, certify and maintain a continuous emission monitoring system (CEMS) or approved Alternative Monitoring System for measuring NO_x, CO, and either CO₂ or oxygen analyzer according to the applicable procedures under Appendix B, and Appendix F to Part 60 of Chapter 40 on a continuous basis. Such monitoring system shall include an automated data acquisition and handling system (DAHS).

The span value for the NO_x CEMs shall be 500 ppm (40 CFR §60.48b(e)(2)(i)) if applicable.

The permittee must conduct and pass a performance evaluation of the CEMS or PEMS according to the procedures under 40 CFR §60.13. within 180 days after restarting of the boiler.

For NO_x and CO₂ or O₂ direct measurement only; when NO_x emission data are not obtained because of CEMS or alternative monitoring system breakdown, repairs, calibration checks, and zero and span adjustment, emission data will be obtained by using standby monitoring systems, Method 7 or 7A of Appendix A of Part 60, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of the 30 successive steam generating unit operating days. **[40 C.F.R. §60.48b(f)]**

The permittee may elect to use a predictive emission monitoring system (PEMS) as an alternative monitoring system in lieu of CEMS. Such PEMS must meet the Performance Specification (PS) 16 of Appendix B-Performance Specifications and Appendix F-Quality Assurance Procedures to Part 60, which consist of passing an initial relative accuracy test audit (RATA) and quarterly relative accuracy audits (RAA) for the first year, followed by one (1) annual RATA and one (1) annual RAA each year after, and follow-up relative accuracy test, and conducting periodic quality assurance (QA) assessments. [**40 C.F.R. §60.49(c)**]

For purposes of calculating data averages, the permittee cannot use data recorded during periods of monitoring malfunctions, associated repairs, out-of-control periods, required quality assurance or control activities. The permittee must use all the data collected during all other periods in assessing compliance with the emission limit permitted in Condition 4.1.3. Any periods for which the monitoring system is out of control and data are not available for required calculations constitute a deviation from the monitoring requirements. Records of all data collected, calibrations, calibration checks, relative accuracy tests, maintenance performed, and malfunctions of the CEMS/PEMS shall be maintained in accordance with Condition 3.4.1. of this permit. [**40 C.F.R. §§ 60.48b(b) though (f) and 45CSR§13-5.10.**]

[**45CSR14, R14-0027, 4.2.4.; 45CSR16**]

4.2.4. For the purposes of demonstrating compliance with the mercury limitation in Condition 4.1.4., the permittee shall continuously monitor the concentration of mercury, flow rate of hydrogen gas being delivered to the Power House, and calculated mercury concentration of the hydrogen gas as delivered in terms of $\mu\text{g}/\text{dscm}$. The above monitoring is only required when either Nos. 4 and/or 6 Boilers are fired with any combination of hydrogen gas. Records of such monitoring shall be maintained in accordance with Condition 3.4.2. [**45CSR14, R14-0027, 4.2.5.**]

4.2.5. Regarding the determination of valid hourly emission data used to determine compliance with the 30-day rolling average limits in Condition 4.1.1., 4.1.2., and 4.1.3., the following criteria shall be used to determine what hourly emissions data must be used in the 30-day rolling average.

- a. Except as noted in item c. of this condition, for a full operating hour of the unit at least four valid data point are required to calculate the hourly average (i.e. one data point in each of the 15-minute quadrants of the hour).
[**40 CFR §60.7(h)(2)(i)**]
- b. Except as noted in item c., for a partial operating hour of the unit, at least one valid data point in each 15-minute quadrant of the hour in which the unit operates is required to calculate the hourly average.
[**40 CFR §60.7(h)(2)(ii)**]
- c. For any operating hour in which required maintenance or quality-assurance activities are performed of the monitoring system is not valid.
[**40 CFR §60.7(h)(2)(iii)**]
 - i. If the unit operates in two or more quadrants of the hour, a minimum of two valid data points, separated by at least 15 minutes, is required to calculate the hourly average;
[**40 CFR §60.7(h)(2)(iii)(A)**]
 - ii. If the unit operates in only one quadrant of the hour, at least one valid data point is required to calculate the hourly average.
[**40 CFR §60.7(h)(2)(iii)(B)**]

- d. If a daily calibration error check is failed during any operating hour, all data for that hour shall be invalidated, unless a subsequent calibration error test is passed in the same hour and the requirements of paragraph (h)(2)(iii) of this section are met, based solely on valid data recorded after the successful calibration.
[40 CFR §60.7(h)(2)(iv)]
- e. For each full or partial operating hour, all valid data points shall be used to calculate the hourly average.
[40 CFR §60.7(h)(2)(v)]
- f. Except as provided under item g. of this condition, data recorded during periods of continuous monitoring system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph.
[40 CFR §60.7(h)(2)(vi)]
- g. The permittee complying with the requirements of 40 CFR §60.7(f)(1) or (2) must include any data recorded during periods of monitor breakdown or malfunction in the data averages.
[40 CFR §60.7(h)(2)(vii)]
- h. Either arithmetic or integrated averaging of all data may be used to calculate the hourly averages. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O₂ or ng/J of pollutant).
[40 CFR §60.7(h)(2)(ix)]

[45CSR14, R14-0027, 4.2.6.; 45CSR16]

4.3. Testing Requirements

- 4.3.1. To demonstrate that a gaseous fuel other than natural gas or refinery gas qualifies as an other gas 1 fuel, as defined in 40 C.F.R. §63.7575, you must conduct a fuel specification analyses for mercury according to the procedures in paragraphs (g) through (i) of 40 C.F.R. §63.7521 and Table 6 to 40 C.F.R. 63 Subpart DDDDD, as applicable, except as specified in paragraph (f)(1) through (4) of 40 C.F.R. §63.7521, or as an alternative where fuel specification analysis is not practical, you must measure mercury concentration in the exhaust gas when firing only the gaseous fuel to be demonstrated as an other gas 1 fuel in the boiler or process heater according to the procedures in Table 6 to 40 C.F.R. 63 Subpart DDDDD.
[40 C.F.R. §§63.7521(f), (g), (h), and (i); 45CSR34] (No. 4 Boiler, No. 6 Boiler)
- 4.3.2. You must develop a site-specific fuel analysis plan for other gas 1 fuels according to the following procedures and requirements in paragraphs (1) and (2) of this condition.
 - (1) If you intend to use an alternative analytical method other than those required by Table 6 to Subpart DDDDD, you must submit the fuel analysis plan to the Administrator for review and approval no later than 60 days before the date that you intend to conduct the initial compliance demonstration described in §63.7510.
 - (2) You must include the information contained in paragraphs (2)(i) through (vi) of this condition in your fuel analysis plan.
 - (i) The identification of all gaseous fuel types other than those exempted from fuel specification analysis under (1) through (3) of §63.7521 anticipated to be burned in each boiler or process heater.
 - (ii) For each anticipated fuel type, the identification of whether you or a fuel supplier will be conducting the fuel specification analysis.

- (iii) For each anticipated fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the samples if your procedures are different from the sampling methods contained in Table 6 to Subpart DDDDD. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types. If multiple boilers or process heaters are fueled by a common fuel stream it is permissible to conduct a single gas specification at the common point of gas distribution.
- (iv) For each anticipated fuel type, the analytical methods from Table 6 to Subpart DDDDD, with the expected minimum detection levels, to be used for the measurement of mercury.
- (v) If you request to use an alternative analytical method other than those required by Table 6 to Subpart DDDDD, you must also include a detailed description of the methods and procedures that you are proposing to use. Methods in Table 6 to Subpart DDDDD shall be used until the requested alternative is approved.
- (vi) If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to Subpart DDDDD. When using a fuel supplier's fuel analysis, the owner or operator is not required to submit the information in paragraph (iii).

[40 C.F.R. §63.7521(g); 45CSR34] (No. 4 Boiler, No. 6 Boiler)

- 4.3.3. You must obtain a single fuel sample for each fuel type for fuel specification of gaseous fuels.
[40 C.F.R. §63.7521(h); 45CSR34] (No. 4 Boiler, No. 6 Boiler)
- 4.3.4. You must determine the concentration in the fuel of mercury, in units of microgram per cubic meter, dry basis, of each sample for each other gas 1 fuel type according to the procedures in Table 6 to Subpart DDDDD.
[40 C.F.R. §63.7521(i); 45CSR34] (No. 4 Boiler, No. 6 Boiler)
- 4.3.5. If you elect to demonstrate that a gaseous fuel meets the specifications of another gas 1 fuel as defined in §63.7575, you must conduct an initial fuel specification analyses according to §63.7521(f) through (i) and according to the frequency listed in §63.7540(c) and maintain records of the results of the testing as outlined in §63.7555(g). For samples where the initial mercury specification has not been exceeded, you will include a signed certification with the Notification of Compliance Status that the initial fuel specification test meets the gas specification outlined in the definition of other gas 1 fuels.
[40 C.F.R. §63.7530(g); 45CSR34] (No. 4 Boiler, No. 6 Boiler)

4.4. Recordkeeping Requirements

- 4.4.1. Except as provided under paragraph (g)(2) of §60.48c, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day. As an alternative to meeting the requirements of paragraph (g)(1) of §60.48c, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the SO₂ standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.
[40 C.F.R. §§ 60.48c(g)(1) and (2); 45CSR16] (Rental Boiler R200)
- 4.4.2. The permittee shall keep records of fuel consumed by each boiler on a daily basis, which includes natural gas usage. For the purpose of demonstrating that the natural gas has insignificant amount of sulfur, the permittee shall keep fuel receipts (such as a, valid purchase contract, tariff sheet, or transportation contact) from the natural gas supplier.

Once the natural gas conversion for No. 6 Boiler has been completed, the permittee shall calculate the annual capacity factor for natural gas. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. Such records shall be maintained in accordance with Condition 3.4.2.

[45CSR14, R14-0027, 4.4.4.; 45CSR§2-8.3.c.; 45CSR§§2A-7.1.a. and 7.1.a.6.] (No. 4 Boiler, No. 5 Boiler, No. 6 Boiler, Rental Boiler R200)

[45CSR§10-8.3.c.] (No. 4 Boiler, No. 5 Boiler, No. 6 Boiler)

[40 C.F.R. §§ 60.49b(d)(1) and 60.49b(r)(1); 45CSR16] (No. 6 Boiler)

4.4.3. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.1, Subsection 4.0. (Power Dept. – Boilers), the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

[45CSR14, R14-0027, 4.4.2.]

4.4.4. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.1, Subsection 4.0. (Power Dept. – Boilers), the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR14, R14-0027, 4.4.3.]

4.4.5. The permittee shall maintain records of the monitoring as required in Conditions 4.2.1., 4.2.2., and 4.2.3. for each steam generating unit operating day of each boiler, with at least the following information:

- a. Calendar date;
- b. The average hourly NO_x and CO emission rate in terms of lb per MMBtu heat input;
- c. The 30 day average NO_x and CO emission rates calculated at the end of each steam generating unit operating day for the preceding 30 steam generating unit operating days;
- d. Identification of steam generating unit operating days when the calculated 30 day average NO_x or CO emission rates are in excess of the respective limits in Conditions 4.1.1., 4.1.2., and 4.1.3. with reasons for such excess emissions and description of corrective actions taken;

- e. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;
- f. Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;
- g. Identification of the times when the pollutant concentration exceeded full span of the CEMS;
- h. Description of any modifications to the CEMS or PEMS that could affect the ability of the CEMS or PEMS to comply with respective Performance Specification (PS); and
- i. Results of daily CEMS drift tests and quarterly accuracy assessments as required Appendix F, Procedure 1 or Part 75 if applicable to the monitoring system.

[45CSR14, R14-0027, 4.4.5.]

4.4.6. You must keep records according to paragraphs (1) and (2) of this condition.

- (1) A copy of each notification and report that you submitted to comply with 40 C.F.R. 63 Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in 40 C.F.R. §63.10(b)(2)(xiv).
- (2) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in 40 C.F.R. §63.10(b)(2)(viii).

[40 C.F.R. §63.7555(a); 45CSR34] (No. 4 Boiler, No. 5 Boiler, No. 6 Boiler, Rental Boiler R200)

4.4.7. If you elected to demonstrate that the unit meets the specification for mercury for the unit designed to burn gas 1 subcategory, you must maintain monthly records (or at the frequency required by §63.7540(c)) of the calculations and results of the fuel specification for mercury in Table 6 to 40 C.F.R. 63 Subpart DDDDD.

[40 C.F.R. §63.7555(g); 45CSR34] (No. 4 Boiler, No. 6 Boiler)

4.4.8. **Format and Retention of Records for 40 C.F.R. 63 Subpart DDDDD**

- (a) Your records must be in a form suitable and readily available for expeditious review, according to 40 C.F.R. §63.10(b)(1).
- (b) As specified in 40 C.F.R. §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (c) You must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 C.F.R. §63.10(b)(1). You can keep the records off site for the remaining 3 years.

[40 C.F.R. §§63.7560(a), (b), and (c); 45CSR34] (No. 4 Boiler, No. 5 Boiler, No. 6 Boiler, Rental Boiler R200)

- 4.4.9. In order to demonstrate compliance with the 24-hour average 182 MMBtu/hr heat input limitation in condition 4.1.3.c. for No. 6 Boiler, the permittee shall compute and record the 24-hour average heat input on a calendar-day basis. *Compliance with this calendar-day basis of recordkeeping ensures compliance with the less stringent requirement to demonstrate that the 12-month rolling total heat input is less than 1,594,320 MMBtu in underlying permit R14-0027, condition 4.1.3.c.*
[45CSR§30-5.1.c.; 45CSR14, R14-0027, 4.1.3.c.]
- 4.4.10. In order to demonstrate compliance with the 24-hour average 540 MMBtu/hr heat input limitation in condition 4.1.1.c. for No. 4 Boiler, the permittee shall compute and record the 24-hour average heat input on a calendar-day basis. *Compliance with this calendar-day basis of recordkeeping ensures compliance with the less stringent requirement to demonstrate that the 12-month rolling total heat input is less than 4,730,400 MMBtu in underlying permit R14-0027, condition 4.1.1.c.*
[45CSR§30-5.1.c.; 45CSR14, R14-0027, 4.1.1.c.]

4.5. Reporting Requirements

- 4.5.1. The permittee shall submit to the Director within 45 days of completion of performance evaluation for the CEMS or PEMS for No. 4 Boiler two copies (or one electronic document pursuant to Condition 3.5.3) of the performance evaluation report of CEMS or PEMS for each unit and a copy of the Re-Certification Application.
[45CSR14, R14-0027, 4.5.1.; 40 C.F.R. §75.63]
- 4.5.2. Once the CEMS or PEMS for No. 4, No. 5 and No. 6 Boilers has been certified after being converted to natural gas; *Semi-Annual CO and NO_x Excess Emission and Monitoring System Performance Report* to be included with the facility's Annual and Semi-Annual Title V Compliance Report, the permittee shall submit a report to the Director summarizing CO and NO_x emissions including periods of startups, shutdowns, malfunctions, and CEMS or PEMS system monitor availability for the reporting period. The reporting period is January 1st to June 30th and July 1st to December 31st. Such report shall contain the information collected during the respective reporting period as required in Condition 4.4.5. Any emissions data that indicate that the limits as stated in Section 4.1. (i.e., conditions 4.1.1., 4.1.2., and 4.1.3.) were exceeded during the corresponding reporting period must be noted in this summary report. At the minimum, the date and time, length of the exceedances(s), magnitude, percentage of excess emissions, the limit that was exceeded, the cause of the exceedances, and the corrective action taken shall be included in the summary report. Submittal of 40 CFR 75 data (NO_x) in electronic data reporting (EDR or XML) format to the Administrator shall be deemed to satisfy the reporting requirements of this condition for NO_x emissions from Nos. 4 and 5 Boilers, except that excess NO_x emission from No. 6 Boiler shall be included in this report.
[45CSR14, R14-0027, 4.5.2.; 40 C.F.R. §60.7(c); 40 C.F.R. §§60.49b(h)(2)(ii); 45CSR§13-3; 45CSR16]
- 4.5.3. The permittee shall submit a "Notification of Compliance Status" to the Director before the close of business on the sixtieth (60th) day after completion of the initial compliance demonstration as required in 40 CFR §63.7530(e) and (g) for No. 4 Boiler. Such "Notification of Compliance Status" shall be in accordance with 40 CFR §63.9(h)(2)(ii) and contain the information specified in 40 CFR §§ 63.7545(e)(1), (2), (6), (7) and (8), which included a statement the one time energy assessment was completed, the initial tune-up for the unit was completed and the initial fuel analysis was conducted according to §63.7521 for the hydrogen gas and meets the specifications as an "other gas (1) fuel" (Condition 4.1.4.).
[45CSR14, R14-0027, 4.5.3.; 40 C.F.R. §§ 63.7545(a), 63.7545(e), 63.7530(e), 63.7530(f), 63.7530(g), 63.7495(d), and 63.9(h); 45CSR34]
(No. 4 Boiler)
[40 C.F.R. §§ 63.7545(a), 63.7545(e), 63.7530(e), 63.7530(f), 63.7495(d), and 63.9(h); 45CSR34]
(Rental Boiler R200)

- 4.5.4. You must submit a Compliance report for 40 C.F.R. 63 Subpart DDDDD containing the information in §63.7550(c)(5)(i) through (iii), (xiv), and (xvii), which is:
- (i) Company and Facility name and address.
 - (ii) Process unit information, emissions limitations, and operating parameter limitations.
 - (iii) Date of report and beginning and ending dates of the reporting period.
 - (x) A summary of any fuel specification analyses conducted according to §§63.7521(f) and 63.7530(g) (conditions 4.3.1. and 4.3.5., respectively, excluding Rental Boiler R200).
 - (xiv) Include the date of the most recent tune-up for each unit subject to only the requirement to conduct a 5-year tune-up according to 40 C.F.R. §63.7540(a)(12). Include the date of the most recent burner inspection if it was not done on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.
 - (xvii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

You must submit the report every five (5) years according to the requirements in 40 C.F.R. §63.7550(b), which are:

- (1) The first compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in 40 C.F.R. §63.7495 and ending on July 31 or January 31, whichever date is the first date that occurs at least five (5) years after the compliance date that is specified for your source in 40 C.F.R. §63.7495.
- (2) The first 5-year compliance report must be postmarked or submitted no later than January 31.
- (3) Each subsequent 5-year compliance report must cover the 5-year period from January 1 to December 31.
- (4) Each subsequent 5-year compliance report must be postmarked or submitted no later than January 31.

You must submit all reports required by Table 9 of 40 C.F.R. 63 Subpart DDDDD electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to 40 C.F.R. 63 Subpart DDDDD is not available in CEDRI at the time that the report is due the report you must submit the report to the Administrator at the appropriate address listed in 40 C.F.R. §63.13. At the discretion of the Administrator, you must also submit these reports, to the Administrator in the format specified by the Administrator.

[40 C.F.R. §§63.7550(a), (b), (c)(1), (c)(5)(i) though (iv), (x), (xiv), and (xvii) and Item 1.a. of Table 9 to Subpart DDDDD; 40 C.F.R. §63.7550(h)(3); 45CSR34; 45CSR14, R14-0027, 4.5.4.] (No. 4 Boiler, No. 5 Boiler, No. 6 Boiler, Rental Boiler R200)

4.6. Compliance Plan

- 4.6.1. Reserved.

5.0. Reserved.

5.1. Limitations and Standards

5.1.1. Reserved.

5.2. Monitoring Requirements

5.2.1. Reserved.

5.3. Testing Requirements

5.3.1. Reserved.

5.4. Recordkeeping Requirements

5.4.1. Reserved.

5.5. Reporting Requirements

5.5.1. Reserved.

5.6. Compliance Plan

5.6.1. Reserved.

6.0 Requirements for Brine Department, Emission Points: E417 – Raw Brine Flare (FL003) on Gas Separator (SP007)

6.1. Limitations and Standards

- 6.1.1. No person shall cause, suffer, allow or permit particulate matter to be discharged from any incinerator into the open air in excess of the quantity determined by use of the following formula:

$$\text{Emissions (lb/hr)} = F \times \text{Incinerator Capacity (tons/hr)}$$

Where, the factor, F, is as indicated in Table I below:

Table I: Factor, F, for Determining Maximum Allowable Particulate Emissions

| | Incinerator Capacity | Factor F |
|----|-----------------------------|-----------------|
| A. | Less than 15,000 lb/hr | 5.43 |
| B. | 15,000 lb/hr or greater | 2.72 |

The following hourly particulate matter emissions limit for the Raw Brine Flare (FL003) shall not be exceeded:

| Emission Point | Description | PM Emission Limit (lb/hr) |
|-----------------------|--|----------------------------------|
| E417 | Raw Brine Flare (FL003) on Gas Separator (SP007) | 0.24 |

(Emission Unit: FL003 – Raw Brine Flare on Gas Separator (SP007))
[45CSR§6-4.1.; 45CSR13, R13-3328, 4.1.1.]

- 6.1.2. Emission of Visible Particulate Matter –No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater (Emission Unit: FL003 – Raw Brine Flare on Gas Separator (SP007))
[45CSR§6-4.3.; 45CSR13, R13-3328, 4.1.2.]
- 6.1.3. The provisions of 6.1.2. shall not apply to smoke which is less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per start-up. (Emission Unit: FL003 – Raw Brine Flare on Gas Separator (SP007))
[45CSR§6-4.4.; 45CSR13, R13-3328, 4.1.3.]
- 6.1.4. The Raw Brine Process [Flare (FL003) on Gas Separator (SP007)] shall remain in service and shall be used for the backwashing and depressurization of all the brine wells as needed.

Emissions of SO₂ to the atmosphere from the Raw Brine Flare (FL003) shall not exceed 11.65 lb/hr as averaged over a three-hour period, and a 12-month rolling total of 9.23 ton/yr comprised of SO₂ emissions from:

- 1) The bypassing the H₂S Stripper System during plant outages (estimated at 14, twenty-four-hour outage days per yr);

- 2) The normal daily flaring of residual H₂S remaining after brine treatment through the H₂S Stripper System (estimated at 21.5 hr/day for 351 days/yr at a SO₂ emission rate of 0.572 lb/hr); and
- 3) The daily bypassing of the H₂S Stripper System during backwashing/depressurization of brine wells (estimated at 2.5 hr/day for 351 days/yr).

The above 12-month rolling total does not include SO₂ emissions from the bypassing of the H₂S Stripper System during an emergency equipment outage which is covered below under Section 9.1.7. of this permit. **[45CSR13, R13-3328, 4.1.4.; CO-SIP-C-2003-27, IV.3.D.]**

- 6.1.5. The Raw Brine Flare (FL003) shall be equipped with an alarm system to detect “flameout” condition. If the flare cannot be immediately restarted, all gas flow to the flare shall be shutoff. **[45CSR13, R13-3328, 4.1.5.]**
- 6.1.6. The Zero Brine Collection Tank (V273) and Flare (FL002) shall be permanently removed from service. **[45CSR13, R13-3328, 4.1.6.]**
- 6.1.7. All exhaust gases from Process #017, Raw Brine Flare (FL003) on process vent E417, shall be exhausted from a stack having a height of forty (40) meters above grade. Any modifications to the stacks in existence on the date of entry (July 29, 2003) of Consent Order CO-SIP-C-2003-27 or replacement of those stacks shall comply with the provisions of 45CSR20 “Good Engineering Practice as Applicable to Stack Heights.” **[CO-SIP-C-2003-27, IV.4.]**
- 6.1.8. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary. **[45CSR13, R13-3328, 4.1.12.]** (*Flare FL003*)

6.2. Monitoring Requirements

- 6.2.1. For the purpose of determining compliance with the opacity limits set forth in Sections 6.1.2. and 6.1.3. for Raw Brine Flare FL003, the permittee shall conduct opacity monitoring and recordkeeping for all emission points and equipment in service that are subject to the opacity limit under 45CSR6.

As an alternative to opacity monitoring, the permittee may elect to conduct visible emission checks and, if need be, visible emission observations. The visible emission check is used to determine the presence or absence of visible particulate matter emissions. A visible emission observation uses U.S. EPA Method 9, Method 22, or the procedure outlined in 45CSR§7A-2.1.a., or other method approved by the Director, to more precisely determine opacity. If visible emissions are observed during a visible emission check, corrective action must be taken to return the emission point to no visible emissions, or a visible observation must be conducted to determine that the opacity is less than 20%.

Opacity monitoring or visible emission checks, or visible emission observations shall be conducted at least once per calendar month. If opacity remains less than 20% for three consecutive months, opacity monitoring/checks/observations may be conducted quarterly. If opacity should equal or exceed 20% during quarterly observations, monthly readings must be implemented until three consecutive monthly readings of less than 20% opacity are recorded. Visible emission checks of the emission points shall be performed for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present.

Opacity monitoring or visible emission checks, or visible emission observations shall be performed during periods of normal facility/unit operation and appropriate weather conditions.

[45CSR13, R13-3328, 4.2.1.]

(Emission Unit: FL003 – Raw Brine Flare on Gas Separator (SP007))

6.3. Testing Requirements

- 6.3.1. Tests to determine the concentration of H₂S in the gas stream to the raw brine flare (FL003) on gas separator E417 and the flow rate of those streams shall be conducted at least twice per year with the concentration of H₂S reported in units of grains per hundred standard cubic feet of gas. These tests shall also be conducted for the depressurization and backwashing of the raw brine wells. A copy of the test report shall be sent to DAQ Compliance and Enforcement via email as specified in Section 3.5.3 of this permit within thirty (30) days of the end of each calendar year.

[45CSR13, R13-3328, 4.3.1.]

- 6.3.2. Process #017, Raw Brine Flare (FL003) on process vent E417, shall demonstrate compliance with Section IV.3.D. of Consent Order CO-SIP-C-2003-27 (condition 6.1.4. of this permit), by conducting testing for the hydrogen sulfide concentration in the gas stream sent to the flare. Testing shall be conducted twice per year. The company shall, on a daily basis while the Raw Brine Flare (FL003) is in operation, continue to estimate the flow rate and the concentration of H₂S sent to the flare and calculate emissions assuming 100% conversion of H₂S to sulfur dioxide from the unit's flare stack. The methodology previously approved under Consent Order CO-SIP-2000-1 will be used to estimate the total flow rate and concentration of H₂S sent to the flare. This data will be used to determine compliance with the emission limitations set forth in condition 6.1.4. of this permit. This protocol shall be incorporated as terms and conditions of Consent Order CO-SIP-C-2003-27.

[CO-SIP-C-2003-27, V.5.; 45CSR13, R13-3328, 4.3.2.]

- 6.3.3. Process #017, Raw Brine Flare (FL003) on process vent E417 (a source of sulfur dioxide emissions subject to the testing requirements in CO-SIP-C-2003-27 § V.5.) shall be required to submit a test protocol to the Director, for approval, at least thirty (30) days prior to the projected test dates. The Company shall demonstrate compliance using a reference method under 40 C.F.R. 60 Appendix A. When no such method is available, the Company may, in writing, request approval by the Director to use alternative sampling and analytical procedures. The Director shall be provided written notices of the actual test dates, after approval of the test protocol, but not less than fifteen (15) days prior to the date of testing. The Company shall submit the results of the testing, to the Director, within sixty (60) days of the completion of the test.

[CO-SIP-C-2003-27, V.8.]

- 6.3.4. At such reasonable times as the Director may designate, the operator of any incinerator shall be required to conduct or have conducted stack tests to determine the particulate matter loading, by using 40 CFR Part 60, Appendix A, Method 5 or other equivalent EPA approved method approved by the Director, in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or the Director's authorized representative, may at the Director's option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices *(Emission Unit: FL003 – Raw Brine Flare on Gas Separator (SP007))*

[45CSR§6-7.1.; 45CSR13, R13-3328, 4.3.3.]

6.4. Recordkeeping Requirements

6.4.1. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.1, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-3328, 4.4.3.] (*Emission Unit: FL003 – Raw Brine Flare on Gas Separator (SP007)*)

The Company shall maintain records of the occurrence, date, time and duration of any malfunction in the operation of sources of sulfur dioxide emissions, any malfunction of air pollution control equipment or any periods during which a control device was inoperative.

[CO-SIP-C-2003-27, VI.1.] (*Flare FL003*)

6.4.2. All data and information required to be recorded or obtained under the terms of Consent Order CO-SIP-C-2003-27 (permit conditions 6.3.2., 6.3.3., and 6.4.1. in this Title V Operating Permit) shall be maintained in a permanent form suitable for inspection and shall be retained for at least five (5) years following the date of the record or report. All such data and information shall be submitted in accordance with the terms of Consent Order CO-SIP-C-2003-27 (permit conditions 6.3.2., 6.3.3., and 6.4.1. in this Title V Operating Permit) or made available to the Director upon his or her request during any facility inspection by an authorized representative of the Director. **[CO-SIP-C-2003-27, VI.6.]**

6.4.3. The permittee shall maintain records of all monitoring data required by Section 6.2.1. of this permit, documenting the date and time of each visible emissions check, the emission point or equipment identification number, the name or means of identification of the responsible observer, the results of the check, and if necessary, all corrective actions taken. Should a visible emissions observation be required to be performed per the requirements specified in 40 C.F.R. 60 Appendix A, Method 9, then data records of each observation shall be maintained per the requirements of that method. For an emission unit out of service during the normal monthly evaluation, the record of observation may note “out of service” (OOS) or equivalent. These records shall be maintained on site for a period of five years in accordance with Section 3.4.2. and shall be made available to the Director or his authorized representative upon request. (*Emission Unit: FL003 – Raw Brine Flare on Gas Separator (SP007)*)

[45CSR13, R13-3328, 4.4.4.]

- 6.4.4. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.1, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

(Emission Unit: *FL003 – Raw Brine Flare on Gas Separator (SP007)*)

[45CSR13, R13-3328, 4.4.2.]

- 6.4.5. The following daily records are to be kept and used to verify that the Raw Brine Flare (FL003) does not exceed the annual SO₂ emission limit established in permit condition 6.1.4:

- The number of hours the H₂S Stripper System was bypassed due to backwashing the brine production wells;
- The number of hours the H₂S Stripper System was down/out of service due to plant outages; and
- The number of hours the H₂S Stripper System was in operation.

The above records shall be maintained on site for a period of five years in accordance with Section 3.4.2 and shall be made available to the Director or his authorized representative upon request.

[45CSR13, R13-3328, 4.4.7.]

6.5. Reporting Requirements

- 6.5.1. After completing the annual tests to determine the concentration of H₂S in the gas streams to the raw brine flare (FL003) on process vent/emission point E417, the Company shall calculate SO₂ emissions assuming 100% conversion of H₂S to SO₂ in the flare. The SO₂ yearly emissions (lb/yr) shall be calculated for the depressurization/backwashing operation. In addition, the maximum highest SO₂ hourly emission rate (lb/hr) shall be reported. This data shall be included in the test report, which the permittee shall send DAQ Compliance and Enforcement via email (as specified in Section 3.5.3 of this permit) within thirty (30) days of the end of each calendar year.

[45CSR13, R13-3328, 4.5.1.]

- 6.5.2. The Company shall report to the Director, by telephone or telefax, any malfunction of such source or its air pollution control equipment which results in any excess sulfur dioxide emission rate within twenty-four (24) hours of becoming aware of such condition. The Company shall file a written report concerning the malfunction with the Director within ten (10) days, providing the following information:

- a. A detailed explanation of the factors involved or causes of the malfunction.
- b. The date and time of duration (with starting and ending times) of the period of excess emissions.
- c. An estimate of the mass of excess emissions discharged during the malfunction period.
- d. The maximum emission rate or concentration measured or otherwise determined during the malfunction in units of the applicable emissions standard.
- e. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction.

- f. A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

[CO-SIP-C-2003-27, VI.4.]

6.6. Compliance Plan

- 6.6.1. Reserved.

7.0 Requirements for the HCl Department

7.1. Limitations and Standards.

7.1.1. Emissions from the three HCl synthesis units shall not exceed the following limitations:

- a. The concentration of HCl (mineral acid) released into the atmosphere from the tails of each synthesis unit shall not exceed 210 milligram per dry cubic meter at standard conditions.
[45CSR§7-4.2 and Table 45-7B to 45CSR7]
- b. Other emissions from the tails of each of the HCl direct synthesis units shall not exceed the following:

| Emission Point | Pollutant | Emission Limit pph |
|----------------|-----------------------|-----------------------|
| E994 (#1) | CO NO _x | 10 1.0 |
| E996 (#2) | CO NO _x | 10 1.0 |
| E1005 (#3) | CO NO _x | 19 1.5 |

[45CSR13, R13-2046, 4.1.1.]

7.1.2. The HCl Transfer Tanks #1 & #2; HCl Storage Tanks #1, #2, #3, #4, and #5; HCl Tanker Truck Loading; and HCl Rail Car Loading shall be operated and maintained in accordance with the following operating and emission limitations:

- a. The concentration of HCl (mineral acid) released into the atmosphere from emission points E995 (Transfer Tanks), E022 (Tanks #1 & #2), E098 (Rail Car), and E023 (Tanks #3/4/5 and the Truck Loading) shall not exceed 210 milligram per dry cubic meter at standard conditions.
[45CSR§7-4.2 and Table 45-7B to 45CSR7]
- b. The transfer Tanks #1 and #2 shall be vented/routed to scrubber SC160 at all times while HCl is either being transferred into or stored in these vessels. The scrubber (SC160) shall be operated and maintained in accordance with the following:
 - i. Scrubber water/liquor shall only pass once through the scrubber;
 - ii. The flow rate of water/liquor into the scrubber shall not fall below one (1.0) gallon per minute.
- c. HCl Tanks #1 and #2 shall be vented/routed to scrubber SC022 at all times while HCl is either being transferred into or stored in these vessels. The scrubber (SC022) shall be operated and maintained in accordance with the following:
 - i. Scrubber water/liquor shall only pass once through the scrubber;
 - ii. The flow rate of water/liquor into the scrubber shall not fall below six (6.0) gallons per minute.

- d. Off gases generated due to the loading of HCl into rail cars shall be vented/routed to scrubber SC018 at all times while the loading of HCl is being conducted. The scrubber shall be operated and maintained in accordance with the following:
 - i. Scrubber water/liquor shall only pass once through the scrubber;
 - ii. The flow rate of water/liquor into the scrubber shall not fall below six (6.0) gallons per minute.
- e. HCl Tanks #3, #4, and #5; and the off gases generated due to the loading of HCl into tanker trucks shall be vented/routed to scrubber SC023 at all times while the loading of HCl is being conducted. The scrubber (SC023) shall be operated and maintained in accordance with the following:
 - i. Scrubber water/liquor shall only pass once through the scrubber;
 - ii. The flow rate of water/liquor into the scrubber shall not fall below six (6.0) gallons per minute.

[45CSR13, R13-2046, 4.1.2.]

- 7.1.3. The permittee shall maintain dust control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures. Good operating practices shall be implemented and when necessary particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment.

[45CSR§7-5.2; 45CSR13, R13-2046, 3.1.7.]

- 7.1.4. Due to unavoidable malfunction of equipment, emissions exceeding those set forth in this permit may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.

[45CSR13, R13-2046, 4.1.3.; 45CSR§7-9.1]

- 7.1.5. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in permit Section 1.1, Subsection 7.0. (HCl Dept. and HCl Dept. – Loading), and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.

[45CSR13, R13-2046, 4.1.4.]

7.2. Monitoring Requirements

- 7.2.1. The permittee shall provide and maintain for all tanks referenced herein a preventive maintenance/vessel inspection program which shall ensure vessel integrity. Records of such inspections shall be maintained in accordance with condition 3.4.2. of this permit.

[45CSR13, R13-2046, 4.2.4.]

- 7.2.2. In order to determine compliance with condition 7.1.2. of this permit, the permittee shall monitor and record water flow to the scrubbers at least once every 15 minutes and use these readings to create an hourly average flow rate. These hourly averages will be used to formulate a daily average which will be used to demonstrate compliance with the flow limitation. At the minimum, a daily average must be determined using at least 18 hours of valid data. Such records shall be maintained in accordance with condition 3.4.2. of this permit.

[45CSR13, R13-2046, 4.2.3.]

[40 C.F.R. §§ 64.3(a), 64.3(b)(1) and (4); 45CSR§30-5.1.c. (SC018, SC022, SC023, SC160)]

- 7.2.3. The permittee shall monitor the pH of the scrubber effluent water. The pH must be maintained between 0.45 and 10 (inclusive). Monitoring shall be on an hourly frequency, collected through the Foxboro process control system (or equivalent data collection system), and data shall be averaged daily each calendar day the control device is operating. Manual data logging can be utilized as a backup method. At a minimum, a daily average must be determined with at least 18 hours of valid data.

[40 C.F.R. §§ 64.3(a), 64.3(b)(1) and (4); 45CSR§30-5.1.c. (SC018, SC022, SC023, SC160)]

7.2.4. Excursion Definitions under 40 C.F.R. Part 64

- (a) Water Flow for Scrubbers SC022, SC018, and SC023 - An excursion shall be a daily average flow rate (as determined by condition 7.2.2.) less than the values in sections 7.1.2.c.ii., 7.1.2.d.ii., and 7.1.2.e.ii. for scrubbers SC022, SC018, and SC023, respectively.
- (b) Water Flow for Scrubbers SC160 - An excursion shall be a daily average flow rate (as determined by condition 7.2.2.) less than the value in section 7.1.2.b.ii.
- (c) pH of effluent from Scrubbers SC018, SC022, SC023, and SC160 – An excursion shall be a daily average pH outside of the range specified in section 7.2.3.

[40 C.F.R. §64.6(c)(2); 45CSR§30-5.1.c.]

- 7.2.5. The permittee shall either monitor the process data to be used to calculate a daily average ratio of water to chlorine for each of the HCl units on a continuous basis or conduct the monitoring as prescribed in Condition 7.2.6. for the purpose of verifying compliance with the HCl concentration limit in Condition 7.1.1.a. The monitoring of the process data shall at the minimum be four readings per hour to create an hourly average. These hourly averages shall be used to calculate a daily average. The process monitoring devices shall have an availability of taking readings/collecting data no less than 75% of the operating day of the corresponding unit. Records of the collected data and daily ratio shall be maintained in accordance with Condition 3.4.2.

Using this ratio to verify compliance, a daily average ratio of scrubbing water to chlorine injected in the HCl unit is at or above 1.6 lb of water to chlorine injected into the HCl unit will indicate that compliance with the emission standard in Condition 7.1.1.a. has been verified. All three HCl Units were designed to be operated at a ratio of water to chlorine of 1.6:1 with an HCl loss rate at the tails of no greater than 10 ppmv (15.2 mg/m³).

[45CSR13, R13-2046, 4.2.1.] (SU004, SU005, SU006)

- 7.2.6. As an alternative to the monitoring method specified Condition 7.2.5., the permittee shall install, maintain, and operate an HCl measuring device at the outlet tail of each synthesis unit for the purpose of measuring the outlet concentration of HCl on a continuous basis. Such instrumentation does not have to meet a performance specification developed by U.S. EPA. However, the permittee shall develop a written monitoring plan that outlines the procedures for calibrating the instrument and conducting calibration checks.

During periods of malfunction, maintenance, calibration checks, or “out-of-control periods” of the instrument, the permittee shall monitor and record process data of the respective synthesis unit that can be used to determine compliance with the HCl concentration limit of Condition 7.1.1.a. The process data used during these periods shall be outlined in the monitoring plan. This recorded data shall be compared to historical data that has been verified to be in compliance by measurements of the instrument.

Records of measured data, calibration checks, quality assurance procedures, instrument malfunctions/failures and maintenance performed on the instrument shall be maintained in accordance with Condition 3.4.2.

[45CSR13, R13-2046, 4.2.2.] (SU004, SU005, SU006)

7.3. Testing Requirements

- 7.3.1. Flow meters to measure scrubber influent water flow rate shall be calibrated on an annual frequency. [40 C.F.R. §64.3(b)(3); 45CSR§30-5.1.c. (SC018, SC022, SC023)]
- 7.3.2. Probes used to measure pH of scrubber effluent shall be calibrated on a quarterly frequency. [40 C.F.R. §64.3(b)(3); 45CSR§30-5.1.c. (SC018, SC022, SC023, SC160)]
- 7.3.3. The flow switch to measure scrubber influent water flow rate shall be proof tested on an annual frequency. [40 C.F.R. §64.3(b)(3); 45CSR§30-5.1.c. (SC160)]

7.4. Recordkeeping Requirements

- 7.4.1. The permittee shall perform modeling, other engineering calculations, and /or direct sampling that demonstrate that the minimum flow of water/liquor in the respective scrubbers, covered under Condition 7.1.2., will ensure compliance with HCl concentration limit of 7.1.2.a. for the respective emission point. Such analysis shall be maintained on site until another demonstration is conducted which replaces the previous demonstration. [45CSR13, R13-2046, 4.4.4.]
- 7.4.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.1, Subsection 7.0. (HCl Dept. and HCl Dept. – Loading), the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures. [45CSR13, R13-2046, 4.4.2.]
- 7.4.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.1, Subsection 7.0. (HCl Dept. and HCl Dept. – Loading), the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each case, the following information shall be recorded:
 - a. The equipment involved.
 - b. Steps taken to minimize emissions during the event.
 - c. The duration of the event.
 - d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-2046, 4.4.3.]

7.5. Reporting Requirements

7.5.1. Reserved.

7.6 Compliance Plan

7.6.1 Reserved.

8.0 Requirements for the Chlorine Department’s Chlorine Recovery & #7 Mercury Circuit: Emission Points/Unit E038 - Chlorine Degas; E320 - Hydrogen Degas, Carbon Absorber #1 (CA001), Carbon Absorber #2 (CA002); E039 - Hydrogen Purification, Contact Cooler (CS020), Brine Scrubber (SC005), Caustic Scrubber (SC006); No. 7 Circuit Cell Room (Z018)

8.1. Limitations and Standards

- 8.1.1. To minimize sulfur dioxide emissions, Process #019, Chlorine Recovery shall be fired only with natural gas. **[CO-SIP-C-2003-27, IV.3.B.]**
- 8.1.2. Emissions to the air of methylene chloride from the emission points or sources listed below shall not exceed the following limitations:

| Emission Point Source ID # | Methylene Chloride Emission Limit after BAT (TPY) |
|---------------------------------------|--|
| Fugitives | 2.50 |
| River Outfall | (0.31) |
| Total (Excluding River) | 2.50 |

[45CSR§§27-3.1 and 11.1. (State-Enforceable only); CO-R27-91-18, III.2. and Attachment B (State-Enforceable only)]

- 8.1.3. **Emission Limitation.** During any consecutive 52-week period, the permittee must not discharge to the atmosphere total mercury emissions in excess of 0.076 grams of mercury per megagram of chlorine produced (1.5×10^{-4} pounds of mercury per ton of chlorine produced) from all by-product hydrogen streams and all end box ventilation system vents. The permittee must be in compliance with the emission limitation at all times. On and after May 6, 2025, the permittee must comply with condition 8.1.11. (*Emission Points: Chlorine Degas (E038), Hydrogen Degas (E320), Hydrogen Purification (E039)*) **[40 C.F.R. §§ 63.8190(a)(2), (a)(2)(i) and 63.8226(c); 45CSR34]**
- 8.1.4. **Written Washdown Plan.** The permittee must prepare, submit, and operate according to a written washdown plan designed to minimize fugitive mercury emissions through routine washing of surfaces where liquid mercury could accumulate. The written plan must address the elements contained in Table 7 of 40 C.F.R. 63 Subpart IIIII. The permittee must maintain a copy of the current washdown plan and records of when each washdown occurs. (*Emission Unit: No. 7 Circuit Cell Room (Z018)*) **[40 C.F.R. §§ 63.8192(e), 63.8246(c), and 63.8256(e)(2); 45CSR34]**

- 8.1.5. **Operation and Maintenance Requirements.** At all times the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by the applicable standards have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, reports and inspection of the source. (*Emission Points/Unit: Chlorine Degas (E038), Hydrogen Degas (E320), Hydrogen Purification (E039), No. 7 Circuit Cell Room (Z018)*)
[40 C.F.R. § 63.8222; 45CSR34]
- 8.1.6. Reserved.
- 8.1.7. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.
[45CSR§2-3.1.] (*Emission Unit: R881 – Chlorine Recovery Boiler*)
- 8.1.8. If you have an existing boiler or process heater, you must comply with 40 C.F.R. 63 Subpart DDDDD no later than January 31, 2016, except as provided in §63.6(i).
[40 C.F.R. §63.7495(b); 45CSR34] (*Emission Unit: R881 – Chlorine Recovery Boiler*)
- 8.1.9. **5-Year Tune-up for 40 C.F.R. 63 Subpart DDDDD.** If your unit is a new or existing boiler or process heater with a heat input capacity of less than or equal to 5 million Btu per hour in the subcategory unit designed to burn gas 1, you must conduct a tune-up of the boiler or process heater every 5 years as specified in 40 C.F.R. §63.7540 (paragraphs (i) through (vi) of this condition).
- (i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;
 - (ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
 - (iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;
 - (iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject;
 - (v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and
 - (vi) Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (vi)(A) through (C) of this condition.

- (A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
- (B) A description of any corrective actions taken as a part of the tune-up; and
- (C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.

Each 5-year tune-up specified in §63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up.

[40 C.F.R. §63.7500(a)(1), Table 3, Item #1; 40 C.F.R. §§ 63.7500(e), 63.7505(a), 63.7515(d), 63.7540(a)(10) and (a)(10)(i) through (vi), 63.7540(a)(12) and (13); 45CSR34] (*Emission Unit: R881 – Chlorine Recovery Boiler*)

- 8.1.10. At all times, you must operate and maintain any affected source (as defined in 40 C.F.R. §63.7490), 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 Administrator that 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 source.

[40 C.F.R. §63.7500(a)(3); 45CSR34] (*Emission Unit: R881 – Chlorine Recovery Boiler*).

- 8.1.11. On and after May 6, 2025, you must comply with the emission limitation in paragraph (i) of this condition and the notification requirement of section 8.5.7.

(i) Emissions of mercury are prohibited from an existing mercury cell chlor-alkali production facility.

[40 C.F.R. §63.8186(a)(5) and §63.8190(a)(2)(ii); 45CSR34]

8.2. Monitoring Requirements

- 8.2.1. Process #019, Chlorine Recovery shall demonstrate compliance with 8.1.1. by firing only pipeline quality natural gas. [CO-SIP-C-2003-27, V.3.]
- 8.2.2. **Cell Room Monitoring Program.** The permittee must institute a cell room monitoring program to continuously monitor the mercury vapor concentration in the upper portion of each cell room and must take corrective actions as quickly as possible when elevated mercury vapor levels are detected. A cell room monitoring plan must contain the elements listed in Table 5 of 40 C.F.R. 63 Subpart IIIII and meet the following requirements:
- 8.2.2.1. The permittee must utilize mercury monitoring systems that meet the requirements of Table 8 of 40 C.F.R. 63 Subpart IIIII.
- 8.2.2.2. The permittee must establish an action level according to 40 C.F.R. §63.8192(g)(2)(i) through (iii).
- 8.2.2.3. Beginning on the compliance date December 19, 2006, the permittee must continuously monitor the mercury concentration in the cell room. Failure to monitor and record the data according to 40 C.F.R. §63.8256(e) (permit condition 8.4.8.) for 75 percent of the time in any 6-month period constitutes a deviation.
- 8.2.2.4. If the average mercury concentration for any 1-hour period exceeds the action level established according to 40 C.F.R. §63.8192(g)(2), the permittee must meet the requirements in either paragraph 8.2.2.4.1. or 8.2.2.4.2.
- 8.2.2.4.1. If the permittee determines that the cause of the elevated mercury concentration is an open electrolyzer, decomposer, or other maintenance activity, the permittee must record the information specified in permit conditions 8.2.2.4.1.1. through 8.2.2.4.1.3.
- 8.2.2.4.1.1. A description of the maintenance activity resulting in elevated mercury concentration;
- 8.2.2.4.1.2. The time the maintenance activity was initiated and completed; and
- 8.2.2.4.1.3. A detailed explanation how all the applicable requirements of Table 1 to 40 C.F.R. 63 Subpart IIIII were met during the maintenance activity.
- 8.2.2.4.2. If the permittee determines that the cause of the elevated mercury concentration is not an open electrolyzer, decomposer, or other maintenance activity, the permittee must follow the procedures specified in permit conditions 8.2.2.4.2.1. and 8.2.2.4.2.2. of this section until the mercury concentration falls below the action level. The permittee must also keep all the associated records for these procedures as specified in Table 9 to 40 C.F.R. 63 Subpart IIIII.
- 8.2.2.4.2.1. Within 1 hour of the time the action level was exceeded, the permittee must conduct each inspection specified in Table 2 to 40 C.F.R. 63 Subpart IIIII, with the exception of the cell room floor and the pillars and beam inspections. The permittee must correct any problem identified during these inspections in accordance with the requirements in Table 2 and 3 to 40 C.F.R. 63 Subpart IIIII.

8.2.2.4.2.2. If the Table 2 inspections and subsequent corrective actions do not reduce the mercury concentration below the action level, the permittee must inspect all decomposers, hydrogen system piping up to the hydrogen header, and other potential locations of mercury vapor leaks using a technique specified in Table 6 to 40 C.F.R. 63 Subpart IIII. If a mercury vapor leak is identified, the permittee must take the appropriate action specified in Table 3 to 40 C.F.R. 63 Subpart IIII.

8.2.2.5. The permittee must be in compliance with the applicable work practice standards in 40 C.F.R. §63.8192(g)-at all times.

(Emission Unit: No. 7 Circuit Cell Room (Z018))

[40 C.F.R. §§ 63.8192(g) and 63.8226(c); 45CSR34]

8.2.3. The permittee must comply with the requirements specified in 8.2.3.1 through 8.2.3.4 of this section to reduce fugitive chlorine emissions in the mercury cell chlor-alkali production facility affected source.

8.2.3.1. The permittee must identify each piece of equipment located throughout the mercury cell chlor-alkali production facility affected source that contains chlorine gas at a concentration of at least 5 percent by volume. The permittee may identify equipment by a list or on a process or piping diagram. The permittee may exclude equipment that is under negative pressure.

8.2.3.2. The permittee must install ambient chlorine sensors at the mercury cell chlor-alkali production facility affected source to measure the ambient chlorine concentration.

- (i) Ambient chlorine sensors must have a detection limit of 0.5 ppmv or less.
- (ii) The sensors must be operated continuously to obtain a measurement at least once each 15 minutes.
- (iii) The permittee must identify the location of the sensors by a list or on a process or piping diagram.
- (iv) The permittee must operate, calibrate, and maintain these sensors in accordance with manufacturer instructions.
- (v) The permittee must keep the necessary parts for routine repairs of the sensors readily available.

8.2.3.3. The permittee must perform inspections to identify leaks of chlorine using olfactory observations according to the schedules in 8.2.3.3 (i) and (ii) of this section. A leak is detected when there is an olfactory observation of a leak. If a leak is detected, you must comply with the repair provisions in 8.2.3.4 of this section.

- (i) At least once each 12 hours, you must inspect each piece of equipment located throughout the mercury cell chlor-alkali production facility affected source that contains chlorine gas at a concentration of greater than 5 percent by volume for chlorine leaks, excluding equipment that is under negative pressure.

- (ii) Within 1 hour of detection of a 1-hour average chlorine concentration of 2 ppmv or greater by a sensor installed and operated in accordance with 8.2.3.2 of this section, you must inspect each piece of equipment located throughout the mercury cell chlor-alkali production facility affected source that contains chlorine gas at a concentration of greater than 5 percent by volume for chlorine leaks, excluding equipment that is under negative pressure.

8.2.3.4. The permittee must undertake a first attempt at repair no later than 1 hour after the leak is detected, and the leak must be repaired no later than 72 hours after the leak is detected. A leak is repaired when there is no olfactory observation of a leak.

[40 C.F.R. §§ 63.8192(h)(1) through (4)]

8.2.4. Continuous Emissions Monitoring and Site-specific Monitoring Plans.

For each by-product hydrogen stream, each end box ventilation system vent, the permittee must monitor the mercury emissions by continuously monitoring the mercury concentration using a mercury continuous emissions monitor (CEM). The permittee must install, operate, and maintain each mercury continuous emissions monitor according to the following requirements:

8.2.4.1 Each mercury continuous emissions monitor must sample, analyze, and record the concentration of mercury at least once every 15 minutes.

8.2.4.2. Each mercury continuous emissions monitor analyzer must have a detector with the capability to detect a mercury concentration of either 0.1 $\mu\text{g}/\text{m}^3$ or 0.5 times the mercury concentration level measured during the performance test conducted according to 40 C.F.R. §63.8232.

8.2.4.3. In lieu of a promulgated performance specification as required in 40 C.F.R. §63.8(a)(2), the permittee must develop a site-specific monitoring plan that addresses the following elements in 8.2.4.3.1. through 8.2.4.3.6.

8.2.4.3.1. Installation and measurement location downstream of the final control device for each by-product hydrogen stream, and end box ventilation system vent.

8.2.4.3.2. Performance and equipment specifications for the sample interface, the pollutant concentration analyzer, and the data collection and reduction system.

8.2.4.3.3. Performance evaluation procedures and acceptance criteria (*i.e.*, calibrations).

8.2.4.3.4. Ongoing operation and maintenance procedures according to the requirements of 40 C.F.R. §63.8(c)(1), (3), and (4)(ii).

8.2.4.3.5. Ongoing data quality assurance procedures according to the requirements of 40 C.F.R. §63.8(d) (1) and (2). You shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, you shall keep previous (*i.e.*, superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. The program of corrective action shall be included in the plan required under § 63.8(d)(2).

- 8.2.4.3.6. Ongoing recordkeeping and reporting procedures in accordance with the general requirements of 40 C.F.R. §63.10(c), (e)(1), and (e)(2)(i).
- 8.2.4.4. The permittee must conduct a performance evaluation of each mercury continuous emissions monitor according to the site-specific monitoring plan.
- 8.2.4.5. The permittee must operate and maintain each mercury continuous emissions monitor in continuous operation according to the site-specific monitoring plan.
- 8.2.4.6. The permittee must monitor mercury concentration according to 8.2.4.1. through 8.2.4.5. at all times that the affected source is operating with the exception of the following paragraphs 8.2.4.6.1. and 8.2.4.6.2.
- 8.2.4.6.1. Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee must monitor mercury emissions continuously (or collect data at all required intervals) at all times that the affected source is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
- 8.2.4.6.2. The permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels or to fulfill a minimum data availability requirement, if applicable. The permittee must use all the data collected during all other periods in assessing compliance.

(Emission Points: Chlorine Degas (E038), Hydrogen Degas (E320), Hydrogen Purification (E039))

[40 C.F.R. §§ 63.8240(a), 63.8242(a) and 63.8244(a); 45CSR34]

- 8.2.5. **Equations and Procedures to Demonstrate Continuous Compliance.** For all by-product hydrogen streams and all end box ventilation system vents the permittee must demonstrate continuous compliance with the mercury emission limit in permit condition 8.1.3. by reducing the mercury emissions data to 52-week averages using Equation 1 of 40 C.F.R. §63.8243(a)(3) and maintaining the 52-week rolling average mercury emissions no higher than the limit in permit condition 8.1.3. According to the following procedures, the permittee must begin collecting data on the compliance date (December 19, 2006) and calculate the first 52-week average mercury emission rate at the end of the 52nd week after the compliance date.
- 8.2.5.1. Each week, the permittee must determine the weekly mercury emission rate in grams per week for each by-product hydrogen stream and for each end box ventilation system vent using continuous mercury monitoring according to permit condition 8.2.4.
- 8.2.5.2. Each week, the permittee must determine the chlorine production and keep records of the production rate as required under permit condition 8.4.2.6.
- 8.2.5.3. Beginning 52 weeks after December 19, 2006, the permittee must calculate the 52-week average mercury emission rate from all by-product hydrogen steam and all end box ventilation system vents using Equation 1 of 40 C.F.R. §63.8243(a)(3).

8.2.5.4. To obtain the data to calculate these 52-week averages, the permittee must continuously monitor in accordance with permit condition 8.2.4.6., representing at least 75 percent of the 15-minute periods in each operating day of the 52-week compliance period (with data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities not counting toward the 75 percent requirement).

(Emission Points: Chlorine Degas (E038), Hydrogen Degas (E320), Hydrogen Purification (E039))

[40 C.F.R. §§ 63.8246(a)(1)(i), 63.8243(a)(1)-(3); 45CSR34]

8.2.6. The permittee must demonstrate continuous compliance with the applicable work practice standards for chlorine emissions in condition 8.2.3 by continuously operating the chlorine sensors required by condition 8.2.3.2 inspecting equipment in accordance with condition 8.2.3.3, repairing equipment in accordance with condition 8.2.3.4 and maintaining records in accordance with condition 8.4.9.

(Emission Points: Chlorine Degas (E038), Hydrogen Degas (E320), Hydrogen Purification (E039))

[40 C.F.R. §63.8246(d); 45CSR34]

8.3. Testing Requirements

8.3.1. Reserved.

8.4. Recordkeeping Requirements

8.4.1. The permittee must keep the following general records for 40 C.F.R. 63 Subpart IIIII:

8.4.1.1. A copy of each notification and report that the permittee submitted to comply with 40 C.F.R. 63 Subpart IIIII, including all documentation supporting any initial notification or Notification of Compliance Status that was submitted, according to the requirements in 40 C.F.R. §63.10(b)(2)(xiv).

8.4.1.2. The records specified in paragraphs (i) and (ii) of this section related to deviations.

(i) Record actions taken to minimize emissions in accordance with condition 8.1.5 and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(ii) Records of the information reported as required in condition 8.5.4.

(Emission Points/Unit: Chlorine Degas (E038), Hydrogen Degas (E320), Hydrogen Purification (E039), No. 7 Circuit Cell Room (Z018))

[40 C.F.R. §63.8256(a); 45CSR34]

8.4.2. The permittee must keep records associated with the byproduct hydrogen stream and end box ventilation system vent emission limitation. The permittee must keep the following records related to the emission limitation in §63.8190(a)(2)(i) (permit condition 8.1.3.).

- 8.4.2.1. Records of performance tests as required in 40 C.F.R. §63.10(b)(2)(viii).
- 8.4.2.2. Records of the mercury emissions monitoring conducted during the performance tests.
- 8.4.2.3. Records of the continuous mercury emissions monitoring data.
- 8.4.2.4. Records of the 52-week rolling average mercury emissions.
- 8.4.2.5. Records associated with the site-specific monitoring plan required in permit condition 8.2.4. (i.e., results of inspections, calibrations, and validation checks of each mercury concentration continuous monitoring system (CMS)).
- 8.4.2.6. Records of chlorine production on a weekly basis.

(Emission Points/Unit: Chlorine Degas (E038), Hydrogen Degas (E320), Hydrogen Purification (E039), No. 7 Circuit Cell Room (Z018))

[40 C.F.R. §§ 63.8256(b)(1)-(6), 63.8246(a)(2) and 63.8243(a)(2); 45CSR34]

- 8.4.3. The permittee must maintain records of the mass of virgin mercury added to cells for each reporting period, and on an annual basis. *(Emission Unit: No. 7 Circuit Cell Room (Z018))*
[40 C.F.R. §§ 63.8256(e)(3), 63.8246(c), and 63.8192(f); 45CSR34]

8.4.4. Reserved.

- 8.4.5. The permittee must maintain records pursuant to 40 C.F.R. Part 63 Subpart IIIII according to the following requirements:

- 8.4.5.1. Records must be in a form suitable and readily available for expeditious inspection and review, according to 40 C.F.R. §63.10(b)(1).
- 8.4.5.2. As specified in 40 C.F.R. §63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- 8.4.5.3. The permittee must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 C.F.R. §63.10(b)(1). The permittee can keep the records offsite for the remaining 3 years.

(Emission Points/Unit: Chlorine Degas (E038), Hydrogen Degas (E320), Hydrogen Purification (E039), No. 7 Circuit Cell Room (Z018))

[40 C.F.R. §§ 63.8258(a), (b), and (c); 45CSR34]

- 8.4.6. You must keep records according to paragraphs (1) and (2) of this condition.

- (1) A copy of each notification and report that you submitted to comply with 40 C.F.R. 63 Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in 40 C.F.R. §63.10(b)(2)(xiv).

- (2) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in 40 C.F.R. §63.10(b)(2)(viii).

[40 C.F.R. §63.7555(a); 45CSR34] (*Emission Unit: R881 – Chlorine Recovery Boiler*)

8.4.7. Format and Retention of Records for 40 C.F.R. 63 Subpart DDDDD

- (a) Your records must be in a form suitable and readily available for expeditious review, according to 40 C.F.R. §63.10(b)(1).
- (b) As specified in 40 C.F.R. §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (c) You must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 C.F.R. §63.10(b)(1). You can keep the records off site for the remaining 3 years.

[40 C.F.R. §§63.7560(a), (b), and (c); 45CSR34] (*Emission Unit: R881 – Chlorine Recovery Boiler*)

- 8.4.8. You must keep the record associated with the work practice standards for mercury emissions that must be kept after November 7, 2022.

- (1) The records specified in 40 C.F.R. 63 Subpart IIIII Table 9 related to the work practice standards in Tables 1 through 4 of this subpart.
- (2) You must maintain a copy of your current washdown plan and records of when each washdown occurs.
- (3) You must maintain records of the mass of virgin mercury added to cells for each reporting period.
- (4) You must keep your current cell room monitoring plan and the records specified in paragraphs (4)(i) through (v) of this section.
 - (i) Records of the monitoring conducted in accordance with 40 C.F.R. § 63.8192(g)(2)(i) to establish your action level, and records demonstrating the development of this action level.
 - (ii) Records of the cell room mercury concentration monitoring data collected.
 - (iii) Instances when the action level is exceeded.
 - (iv) Records specified in 40 C.F.R. § 63.8192(g)(4)(i) for maintenance activities that cause the mercury vapor concentration to exceed the action level.
 - (v) Records of all inspections and corrective actions taken in response to a non-maintenance related situation in which the mercury vapor concentration exceeds the action level.

[40 C.F.R. §63.8256(e); 45CSR34]

- 8.4.9. You must keep the records specified in paragraphs (1) through (4) of this section associated with the work practice standards for fugitive chlorine emissions specified in condition 8.2.3 after November 7, 2022.
- (1) Identification of all equipment in the mercury cell chlor-alkali production facility affected source containing chlorine gas at a concentration of greater than 5 percent by volume. You may exclude equipment that is under negative pressure.
 - (2) Records of the information reported as required in condition 8.5.4.12 and 8.5.4.13.
 - (3) You must record the information specified in paragraph (3)(i) through (iv) of this section for the chlorine sensors required by condition 8.2.3.2.
 - (i) The location, manufacturer, and model number of each sensor.
 - (ii) The manufacturer's instructions for operation, maintenance, and calibration of the chlorine sensors.
 - (iii) Records of all maintenance and calibration of the chlorine sensors.
 - (iv) You must record all periods when the chlorine sensors are not operating.
 - (4) You must maintain records of all chlorine concentration measurements.

[40 C.F.R. §63.8256(f); 45CSR34]

8.5. Reporting Requirements

- 8.5.1. **45CSR27 Reporting Requirements.** All notices and reports required to be submitted to the United States Environmental Protection Agency (“USEPA”) under subpart H shall be submitted to the Director (and the USEPA Administrator, if appropriate) in accordance with the requirements of subpart H and Consent Order CO-R27-91-18.
[45CSR§27-11.1. (State-Enforceable only); CO-R27-98-39A(91), II.1. (State-Enforceable only)]
- 8.5.2. **45CSR27 Reporting Requirements.** If the emission of any TAP unknown to be occurring on the date of entry of Consent Order CO-R27-91-18 (which was June 25, 1991) is not addressed and is discovered by the permittee, the permittee shall notify the Director within fifteen (15) days of such discovery. Unless the Director determines these emissions to be insignificant, the permittee shall submit any necessary BAT Plan for control of this emission within sixty (60) days of the date of such notification. Upon determination by the Director that any required control program for such source represents BAT, the Director shall consider such program for inclusion as an amendment to Consent Order CO-R27-91-18 and determine any conditions to be met for approval and entry of such Amended Consent Order.
[45CSR§§27-3.1. and 11.1. (State-Enforceable only); CO-R27-91-18, III.4. (State-Enforceable only)]
- 8.5.3. **Compliance report due dates for 40 C.F.R. 63 Subpart IIII.** The permittee must submit a semiannual compliance report to the Director according to the requirements set forth below.
- 8.5.3.1. The first compliance report must cover the period beginning on the compliance date December 19, 2006, and ending on June 30, 2007.
 - 8.5.3.2. The first compliance report must be postmarked or delivered no later than July 31, 2007.

8.5.3.3. Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

8.5.3.4. Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual reporting period.
(*Emission Points/Unit: Chlorine Degas (E038), Hydrogen Degas (E320), Hydrogen Purification (E039), No. 7 Circuit Cell Room (Z018)*)

[40 C.F.R. §63.8254(a); 45CSR34]

8.5.4. **Compliance report contents for 40 C.F.R. 63 Subpart IIII.** Each compliance report must contain the information in conditions 8.5.4.1. through 8.5.4.3., and as applicable, 8.5.4.5. through 8.5.4.13.

8.5.4.1. Company name and address.

8.5.4.2. Statement by a responsible official, with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the report.

8.5.4.3. Date of report and beginning and ending dates of the reporting period.

8.5.4.4. Reserved.

8.5.4.5. If there were no deviations from the continuous compliance requirements in 40 C.F.R. §63.8246 (permit condition 8.2.5, 8.2.6, 8.4.2., 8.4.3., and 8.4.4.) that apply, a statement that there were no deviations from the emission limitations, work practice standards, and operation and maintenance standards during the reporting period.

8.5.4.6. If there were no periods during which the mercury continuous emission monitor was out-of-control as specified in 40 C.F.R. §63.8(c)(7), a statement that there were no periods during the which the mercury continuous emissions monitor or CPMS (if applicable) were out-of-control during the reporting period.

8.5.4.7. For each deviation from an emission limitation occurring at an affected source where you are using a mercury continuous emission monitor, according to the site-specific monitoring plan required in 40 C.F.R. §63.8242(a)(3) (permit condition 8.2.4.3.), to comply with the emission limitation permit condition 8.1.3., the permittee must include the information in permit conditions 8.5.4.1. through 8.5.4.3., and the information in the following requirements 8.5.4.7.1. through 8.5.4.7.16.

8.5.4.7.1. A list of the affected sources or equipment.

8.5.4.7.2. The date and time that each deviation started and stopped.

8.5.4.7.3. The cause of the deviation (including unknown cause, if applicable), as applicable, and corrective action taken.

8.5.4.7.4. For each deviation, an estimate of the quantity of each regulated pollutant emitted over any emission limit.

8.5.4.7.5. A description of the method used to estimate the emissions.

8.5.4.7.6. The date and time of each instance in which a continuous monitoring system was inoperative, except for zero (low-level) and high-level checks.

8.5.4.7.7. The date, time, and duration of each instance in which a continuous monitoring system

- was out-of-control, including the information in 40 C.F.R. §63.8(c)(8).
- 8.5.4.7.8. A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.
 - 8.5.4.7.9. A breakdown of the total duration of the deviations during the reporting period including those that are due to control equipment problems, process problems, other known causes, and other unknown causes.
 - 8.5.4.7.10. A summary of the total duration of continuous monitoring system downtime during the reporting period and the total duration of monitoring system downtime as a percent of the total source operating time during the reporting period.
 - 8.5.4.7.11. An identification of each hazardous air pollutant that was monitored at the affected source.
 - 8.5.4.7.12. A brief description of the process units.
 - 8.5.4.7.13. A brief description of the continuous monitoring system.
 - 8.5.4.7.14. The date of the latest continuous monitoring system certification or audit.
 - 8.5.4.7.15. A description of any changes in monitoring system, processes, or controls since the last reporting period.
- 8.5.4.8 For each deviation from the fugitive chlorine requirements in condition 8.2.3 including periods when the chlorine sensors required by condition 8.2.3.2 were not operating; instances where the chlorine sensors required by condition 8.2.3.2 were not calibrated and maintained in accordance with manufacturer instructions or spare parts were not maintained; instances where inspections were not performed in accordance with condition 8.2.3.3.(i) and (ii); and instances where leak repair intervals in condition 8.2.3.4 were not met; the compliance report must contain the information in conditions 8.5.4.1 through 8.5.4.3 of this section and the information in conditions 8.5.4.8.1 through 8.5.4.8.3 of this section.
- 8.5.4.8.1. The total operating time of each affected source during the reporting period
 - 8.5.4.8.2. Information on the number, date, time, duration and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
 - 8.5.4.8.3. A list of the affected sources of equipment.
- 8.5.4.9. The compliance report must contain the mass of virgin mercury added to cells for the reporting period.
- 8.5.4.10. The permittee must report each instance in which the permittee did not meet the following work practice standards in 40 C.F.R. §63.8192:
- 8.5.4.10.1. The washdown plan, as set forth in permit condition 8.1.4.
 - 8.5.4.10.2. The recordkeeping of the mass of all virgin mercury added to cells, as set forth in permit condition 8.4.3.
 - 8.5.4.10.3. The cell room monitoring plan, as set forth in permit condition 8.2.2.

8.5.4.11. The compliance report must include a description of any changes to the following plans during the reporting period.

8.5.4.11.1. The washdown plan, as set forth in permit condition 8.1.4.

8.5.4.11.2. The cell room monitoring plan, as set forth in permit condition 8.2.2.

8.5.4.11.3. The site-specific monitoring plan, as set forth in permit condition 8.2.4.

8.5.4.12. The compliance report must contain the information specified in paragraphs (i) through (iii) for each instance where the 1-hour average concentration of chlorine detected by a chlorine sensor required by 8.2.3.2 was 2 ppmv or greater.

(i) The date and times a chlorine sensor detected chlorine concentrations of 2 ppmv or greater.

(ii) The location of the sensor.

(iii) The date and time that the sensor returned to a 1-hour average concentration of less than 2 ppmv.

8.5.4.13 The compliance report must contain the information specified in paragraphs (i) and (ii) for all inspections conducted under either 8.2.3.3.(i) or (ii). You must also record the information in paragraphs (iii) through (vii) of this section for each leak identified.

(i) The date of each inspection.

(ii) The reason for each inspection (*i.e.*, a routine inspection conducted each 12 hours or an inspection conducted in response to a 2 ppmv or greater 1-hour average concentration of chlorine, as detected by a sensor).

(iii) Location of the leak.

(iv) Date and time the leak was identified.

(v) Date and time of initial repair attempt.

(vi) Date and time the leak is repaired.

(vii) A description of the repair made to stop the leak.

(Emission Points/Unit: Chlorine Degas (E038), Hydrogen Degas (E320), Hydrogen Purification (E039), No. 7 Circuit Cell Room (Z018))

[40 C.F.R. §§ 63.8254(b), 63.8248(a)(1) and (2); 45CSR34; 45CSR§30-12.7.]

8.5.5. Reserved.

- 8.5.6. You must submit a Compliance report for 40 C.F.R. 63 Subpart DDDDD containing:
- a. The information in §63.7550(c)(5)(i) through (iv), (xiv), and (xvii) which is:
 - (i) Company and Facility name and address.
 - (ii) Process unit information, emissions limitations, and operating parameter limitations.
 - (iii) Date of report and beginning and ending dates of the reporting period.
 - (xiv) Include the date of the most recent tune-up for each unit subject to only the requirement to conduct a 5-year tune-up according to 40 C.F.R. §63.7540(a)(12). Include the date of the most recent burner inspection if it was not done on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.
 - (xvii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

You must submit the report every five (5) years according to the requirements in 40 C.F.R. §63.7550(b), which are:

- (1) The first compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in 40 C.F.R. §63.7495 (condition 8.1.8.) and ending on July 31 or January 31, whichever date is the first date that occurs at least five (5) years after the compliance date that is specified for your source in 40 C.F.R. §63.7495 (condition 8.1.8.).
- (2) The first 5-year compliance report must be postmarked or submitted no later than January 31.
- (3) Each subsequent 5-year compliance report must cover the 5-year period from January 1 to December 31.
- (4) Each subsequent 5-year compliance report must be postmarked or submitted no later than January 31.

You must submit all reports required by Table 9 of 40 C.F.R. 63 Subpart DDDDD electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to 40 C.F.R. 63 Subpart DDDDD is not available in CEDRI at the time that the report is due the report you must submit the report to the Administrator at the appropriate address listed in 40 C.F.R. §63.13. At the discretion of the Administrator, you must also submit these reports, to the Administrator in the format specified by the Administrator.

[40 C.F.R. §§63.7550(a), (b), (c)(1), (c)(5)(i) though (iii), (xiv), and (xvii) and Item 1.a. of Table 9 to Subpart DDDDD; 40 C.F.R. §63.7550(h)(3); 45CSR34] (*Emission Unit: R881 – Chlorine Recovery Boiler*)

8.5.7 You must submit a notification of compliance with the prohibition of mercury emissions as specified in paragraphs (1) and (2) of this condition.

(1) The notification must include the information specified in paragraph (1)(i) and (ii) of this section.

(i) A certification that the requirement of 8.1.11 has been met.

(ii) A brief explanation of how the requirement of 8.1.11 has been met.

(2) You must submit this notification before the close of business on the 30th calendar day following the date when compliance with 8.1.11 is attained.

[40 C.F.R. §63.8186(a)(5) and §63.8252(h)]

8.6. Compliance Plan

8.6.1. Reserved.

9.0. Requirements for Calcium Hypochlorite (Cal-Hypo) Department: Emission Points E004 - Lime Silo #1, Filter (FF002); E027 - Lime Silo #2, Filter (FF007); and S001 - Stack Blower (FN003) following Caustic Scrubber (SC002) and Baghouse (FF005); Emission Point E427 – Wet Scrubber (SC080) on H₂S Stripper (SP017)

9.1. Limitations and Standards

- 9.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity. These provisions shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period. (*Emission Unit: FN003 – Stack Blower following Caustic Scrubber (SC002) and Baghouse (FF005)*) **[45CSR§§7-3.1. and 3.2.]**
- 9.1.2. No person shall cause, suffer, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to 9.1.3. is required to have a full enclosure and be equipped with a particulate matter control device. (*Emission Units: B012 – Lime Silo #1 and B014 – Lime Silo #2*) **[45CSR§7-3.7.]**
- 9.1.3. No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable. (*Emission Units: B012 – Lime Silo #1 and B014 – Lime Silo #2*) **[45CSR§7-5.1.]**
- 9.1.4. No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public. **[45CSR13, R13-3328, 4.1.7.; 45CSR§4-3.1. (State-Enforceable only)]** (*Emission Unit: Wet Scrubber SC080 on H₂S Stripper SP017*)
- 9.1.5. When a process or operation results in the discharge of an air pollutant or pollutants which causes or contributes to an objectionable odor, an acceptable control program shall be developed and offered to the Director by the person responsible for the discharge of such air pollutant or pollutants. **[45CSR13, R13-3328, 4.1.8.; 45CSR§4-6.1. (State-Enforceable only)]** (*Emission Unit: Wet Scrubber SC080 on H₂S Stripper SP017*)
- 9.1.6. The pH of the liquid exiting the bottom stage of Wet Scrubber SC080 shall be maintained at a minimum value of 11. This will insure that H₂S emissions to the atmosphere from the permitted process vent/emission point E427 have been minimized to 0.31 lb/hr and 1.36 ton/yr. **[45CSR13, R13-3328, 4.1.9.]**
- 9.1.7. **Emergency Equipment Outage.** If the H₂S Stripper System should fail, the permittee shall be allowed to bypass the Stripper System and operate the Raw Brine Process [Gas Separator (SP007) and Raw Brine Flare (FL003)] up to a maximum of 14 days while major pieces of equipment are being replaced. Any additional time must be approved by the Director. **[45CSR13, R13-3328, 4.1.10.]**

- 9.1.8 **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.1 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR13, R13-3328, 4.1.12.] (*Wet Scrubber SC080*)

9.2. Monitoring Requirements

- 9.2.1. For the purpose of determining compliance with the opacity limits of 9.1.1. and 9.1.2., the permittee shall monitor at least once per eight hour shift: the pressure drop across each of the two Lime Silo Filters (FF002 and FF007), the gas flowrate out of the baghouse (FF005) preceding the caustic scrubber (SC002) and the pressure drop across the caustic scrubber (SC002). A minimum of 95% of the readings of each parameter shall be available during each six month Title V reporting period. [45CSR§30-5.1.c.]
- 9.2.2. For the purpose of determining compliance with the H₂S limits set forth in condition 9.1.6. of this permit, the permittee shall continuously monitor and record caustic (NaOH) flow to the top stage of Scrubber SC080 and pH from the bottom stage of Scrubber SC080. (*Emission Unit: SC080 – Wet Scrubber on H₂S Stripper (SP017)*)
[45CSR13, R13-3328, 4.2.2.]
- 9.2.3. **Caustic Flow Parameter Range and Monitoring.** For purposes of 40 C.F.R. Part 64, the permittee shall utilize the monitoring in condition 9.2.2. to monitor and record the caustic (NaOH) flow from the top stage of the Scrubber SC080 at least once every 15 minutes and use these readings to create an hourly average flow rate. These hourly averages will be used to formulate a daily average which will be used to demonstrate compliance with the minimum daily average flow rate of 3.0 gallons per minute (gpm). Data shall be collected through the Foxboro process control system (or equivalent data collection system) and shall be averaged daily each calendar day the control device is operating. Manual data logging can be utilized as a backup method. At the minimum, a daily average must be determined using at least 18 hours of valid data. Records of the monitoring data shall be maintained in accordance with condition 3.4.2. of this permit.
[40 C.F.R. §§ 64.3(a), 64.3(b)(1) and (4); 45CSR§30-5.1.c.]
- 9.2.4. **pH Parameter Range and Monitoring.** For purposes of 40 C.F.R. Part 64, the permittee shall utilize the monitoring in condition 9.2.2. to monitor and record the pH from the bottom stage of the Scrubber SC080 at least once every 15 minutes and use these readings to create an hourly average pH. These hourly averages will be used to formulate a daily average which will be used to demonstrate compliance with the pH parameter minimum value specified in permit condition 9.1.6. Data shall be collected through the Foxboro process control system (or equivalent data collection system) and shall be averaged daily each calendar day the control device is operating. Manual data logging can be utilized as a backup method. At the minimum, a daily average must be determined using at least 18 hours of valid data. Records of the monitoring data shall be maintained in accordance with condition 3.4.2. of this permit.
[40 C.F.R. §§ 64.3(a), 64.3(b)(1) and (4); 45CSR§30-5.1.c.]
- 9.2.5. **Excursion Definitions under 40 C.F.R. Part 64 for Scrubber SC080**
- (a) Caustic Flow from Top Stage – An excursion shall be a daily average flow rate (as determined by condition 9.2.3.) less than the minimum value specified in condition 9.2.3.

- (b) pH at Bottom Stage – An excursion shall be a daily average pH (as determined by condition 9.2.4.) less than the minimum value specified in condition 9.1.6.

[40 C.F.R. §64.6(c)(2); 45CSR§30-5.1.c.]

9.3. Testing Requirements

- 9.3.1. During stack sampling pursuant to 45CSR§7-8.1., any stack serving any process source operation or air pollution control equipment on any process source operation shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures. [45CSR§7-4.12.]
- 9.3.2. At such reasonable times as the Director may designate, the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices. [45CSR§7-8.1.]
- 9.3.3. The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions. [45CSR§7-8.2.]
- 9.3.4. **QA/QC Practices.** The permittee shall design the monitoring to include quality assurance (QA) and control (QC) practices that are adequate to ensure the continuing validity of the data. The permittee shall consider manufacturer recommendations or requirements applicable to the monitoring in developing appropriate quality assurance and control practices.
- (a) The flow meter used to measure caustic flow from the scrubber top stage shall be inspected and calibrated on an annual frequency.
- (b) The probe used to measure pH of scrubber bottom stage shall be inspected and calibrated on a quarterly frequency.

[40 C.F.R. §64.3(b)(3); 45CSR§30-5.1.c.] (*Wet Scrubber SC080*)

9.4. Recordkeeping Requirements

- 9.4.1. A log entry/record shall be kept on file and shall be made available upon request to the Director or his authorized representative each time the H₂S Stripper System is bypassed and raw brine production is still required. The start and end times, and the reason(s) for bypassing the H₂S Stripper System shall be documented along with all action(s) made by operations to mitigate the release of H₂S to the atmosphere. Air monitoring record(s) of H₂S concentrations before, during, and after the bypassing, if available, shall be made available for the record along with any public odor complaint(s) received. [45CSR13, R13-3328, 4.1.11.]
- 9.4.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.1, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures. [45CSR13, R13-3328, 4.4.2.] (*Wet Scrubber SC080*)

9.4.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.1, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-3328, 4.4.3.] (*Wet Scrubber SC080*)

9.4.4. The monitoring records prescribed in Section 9.2.2. of this permit shall be maintained on the site for a period of five years in accordance with Section 3.4.2. and shall be made available to the Director or his authorized representative upon request.

[45CSR13, R13-3328, 4.4.5.] (*Wet Scrubber SC080*)

9.4.5. The records prescribed in Section 9.4.1. of this permit related to bypassing the H₂S Stripper System shall be maintained on site for a period of five years in accordance with Section 3.4.2. and shall be made available to the Director or his authorized representative upon request.

[45CSR13, R13-3328, 4.4.6.]

9.5. Reporting Requirements

9.5.1. Reserved.

9.6. Compliance Plan

9.6.1. Reserved.

10.0 Requirements for Caustic Department: Emission Point E110 – HCl Tank Vent Scrubber (SC019); Emission Point E998 – Metal Cells Tanks Scrubber (SC162)

10.1. Limitations and Standards

10.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity. These provisions shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period. (*Emission Unit: E110 – HCl Tank Vent Scrubber*) [45CSR§§7-3.1 and 3.2]

10.1.2. Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity given in Table 45-7B found at the end of this rule. [45CSR§7-4.2]

Per Table 45-7B, the allowable stack gas concentration at standard conditions from source operations or duplicate source operations installed after July 1, 1970 is 210 milligrams per dry cubic meter.

(*Emission Unit: E110 – HCl Tank Vent Scrubber*)

10.1.3. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from the metals cells tanks scrubber [E998] which is greater than twenty (20) percent opacity. These provisions shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period. [45CSR13, R13-2886, 4.1.1.; 45CSR§§7-3.1. and 3.2.]

10.1.4. Hydrochloric acid shall not be released from the metals cells tanks scrubber [E998] in excess of 210 milligrams per dry cubic meter. [45CSR13, R13-2886, 4.1.2.; 45CSR§7-4.2.]

10.1.5. The inlet water flow to the scrubber [SC192] shall not be less than 3 gallons per minute when the scrubber is in operation, on a daily average basis. [45CSR13, R13-2886, 4.1.3.]

10.1.6. The maximum amount of 36% HCl sent to the Metal Cells Acid Tank [V027], on a 12-month rolling average, shall not exceed 85,800 gallons. [45CSR13, R13-2886, 4.1.4.]

10.1.7. The maximum amount of 36% HCl sent to the Metal Cells Spent Acid Tank [V042], on a 12-month rolling average, shall not exceed 85,800 gallons. [45CSR13, R13-2886, 4.1.5.]

10.1.8. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 of permit R13-2886 (*i.e.*, Metal Cells Tanks Scrubber SC162) and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary. [45CSR13, R13-2886, 4.1.6.; 45CSR§13-5.10.]

10.2. Monitoring Requirements

10.2.1. For the purpose of determining compliance with the 20% opacity limit of 10.1.1. and the allowable stack gas concentration limit of 10.1.2., the permittee shall monitor at least once per eight hour shift water flow rate to the HCl tank vent scrubber (a minimum of 95% of the readings shall be available during each six month Title V reporting period), conduct an annual proof test on the flow measuring system, and record the times the scrubber was inoperable and the times corrective actions were taken.

(Emission Unit: E110 – HCl Tank Vent Scrubber) [45CSR§30-5.1.c.]

10.2.2. For the purpose of determining compliance with permit conditions 10.1.3., 10.1.4., and 10.1.5., the permittee shall monitor water flow rate to the metal tanks scrubber [SC162] at least once per eight hour shift, and record the times the scrubber was inoperable and the times corrective actions were taken.

[45CSR13, R13-2886, 4.2.1.]

10.3. Testing Requirements

10.3.1. During stack sampling pursuant to 45CSR§7-8.1., any stack serving any process source operation or air pollution control equipment on any process source operation shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures. [45CSR§7-4.12.]

10.3.2. At such reasonable times as the Director may designate, the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.

[45CSR§7-8.1.]

10.3.3. The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions.

[45CSR§7-8.2.]

10.4. Recordkeeping Requirements

10.4.1. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0 of permit R13-2886 (*i.e.*, Metal Cells Tanks Scrubber SC162), the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

[45CSR13, R13-2886, 4.4.2.]

10.4.2. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0 of permit R13-2886 (*i.e.*, Metal Cells Tanks Scrubber SC162), the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.

- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-2886, 4.4.3.]

10.4.3. The permittee shall maintain inlet water flow records to the metal cells tanks scrubber [SC162] to demonstrate compliance with the monitoring requirements established in section 10.2.2. of this permit. To demonstrate compliance, a minimum of 95% of the readings shall be available.

[45CSR13, R13-2886, 4.4.4.]

10.4.4. To demonstrate compliance with sections 10.1.6. and 10.1.7. of this permit, the permittee shall maintain records of the volume of 36% HCl sent to the Metal Cells Acid Tank [V027] and the Metal Cells Spent Acid Tank [V042].

[45CSR13, R13-2886, 4.4.5.]

10.5. Reporting Requirements

10.5.1. Reserved.

10.6. Compliance Plan

10.6.1. Reserved.

11.0. Requirements for PELS™ Department: Emission Points E302 - Prill Tower Air Scrubber and E629 - Molten Salt Furnace

11.1. Limitations and Standards

- 11.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity. These provisions shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period. (*Emission Unit: SC068 - Prill Tower Air Scrubber*) [45CSR§§7-3.1 and 3.2]
- 11.1.2. To minimize sulfur dioxide emissions, the Molten Salt Furnace (R900) shall be fired only with natural gas.
[CO-SIP-C-2003-27 § IV.3.B.]
- 11.1.3. Emissions of sulfur dioxide (SO₂) from the Molten Salt Furnace (E629) shall not exceed 46.5 lb/hr.
[45CSR§10-3.1.e.]
- 11.1.4. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.
[45CSR§2-3.1.] (*Emission Unit: R900 – Molten Salt Furnace*)
- 11.1.5. Emissions of particular matter (PM) from the Molten Salt Furnace (E629) shall not exceed 1.35 lb/hr.
[45CSR§§2-4.1. and 4.1.b.]
- 11.1.6. The visible emission standards set forth in section 3 of 45CSR2 (condition 11.1.4.) shall apply at all times except in periods of start-ups, shutdowns and malfunctions. Where the Director believes that start-ups and shutdowns are excessive in duration and/or frequency, the Director may require an owner or operator to provide a written report demonstrating that such frequent start-ups and shutdowns are necessary.

At all times, including periods of startups, shutdowns and malfunctions, owners and operators shall, to the extent practicable, maintain and operate any fuel burning unit(s) including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, visible emission observations, review of operating and maintenance procedures and inspection of the source.

The owner or operator of a fuel burning unit(s) subject to this rule shall report to the Director any malfunction of such unit or its air pollution control equipment which results in any excess particulate matter emission rate or excess opacity (i.e., emissions exceeding the standards in section 3 and 4 of 45CSR2 (condition 11.1.4. and 11.1.5.)) as provided in 45CSR§§2-9.3.a. and 9.3.b.

[45CSR§§2-9.1., 9.2., and 9.3.] (*Emission Unit: R900 – Molten Salt Furnace*)

- 11.1.7. If you have an existing boiler or process heater, you must comply with 40 C.F.R. 63 Subpart DDDDD no later than January 31, 2016, except as provided in §63.6(i).
[40 C.F.R. §63.7495(b); 45CSR34] (*Emission Unit: R900 – Molten Salt Furnace*)

11.1.8. **Periodic Tune-up for 40 C.F.R. 63 Subpart DDDDD.** If your unit is a new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of 10 million Btu per hour or greater, you must conduct a tune-up of the boiler or process heater annually as specified in 40 C.F.R. §63.7540 (paragraphs (i) through (vi) of this condition).

- (i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;
- (ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
- (iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;
- (iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject;
- (v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and
- (vi) Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (vi)(A) through (C) of this condition.
 - (A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
 - (B) A description of any corrective actions taken as a part of the tune-up; and
 - (C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.

Each annual tune-up specified in §63.7540(a)(10) must be conducted no more than 13 months after the previous tune-up.

[40 C.F.R. §63.7500(a)(1), Table 3, Item #3; 40 C.F.R. §§ 63.7505(a), 63.7515(d), 63.7540(a)(10) and (a)(10)(i) through (vi), 63.7540(a)(13); 45CSR34] *(Emission Unit: R900 – Molten Salt Furnace) If the permittee installs a continuous oxygen trim system as defined in 40 C.F.R. §63.7575 on the Molten Salt Furnace, then the tune-up frequency will change to every five (5) years and the corresponding 5-year tune-up requirements in §63.7500(a)(1), Table 3, Item #1; §63.7540(a)(12); §63.7550(a), Table 9; and §63.7550(b) will become effective for the Molten Salt Furnace (R900).*

- 11.1.9. At all times, you must operate and maintain any affected source (as defined in 40 C.F.R. §63.7490), 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 Administrator that 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 source.
[40 C.F.R. §63.7500(a)(3); 45CSR34] (*Emission Unit: R900 – Molten Salt Furnace*)

11.2. Monitoring Requirements

- 11.2.1. For the purpose of determining compliance with the opacity limits set forth in 11.1.1., the permittee shall conduct opacity monitoring and recordkeeping for all emission points and equipment in service that are subject to the opacity limit under 45CSR7.

As an alternative to opacity monitoring, the permittee may elect to conduct visible emission checks and, if need be, visible emission observations. The visible emission check is used to determine the presence or absence of visible particulate matter emissions. A visible emission observation uses U.S. EPA Method 9, Method 22, or the procedure outlined in 45CSR§7A-2.1.a., or other method approved by the Director, to more precisely determine opacity. If visible emissions are observed during a visible emission check, corrective action must be taken to return the emission point to no visible emissions, or a visible observation must be conducted to determine that the opacity is 20% or less.

Opacity monitoring or visible emission checks, or visible emission observations shall be conducted at least once per calendar month. If opacity remains 20% or less for three consecutive months, opacity monitoring/checks/observations may be conducted quarterly. If opacity should exceed 20% during quarterly observations, monthly readings must be implemented until three consecutive monthly readings of 20% or less opacity are recorded. Visible emission checks of the emission points shall be performed for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Opacity monitoring or visible emission checks, or visible emission observations shall be performed during periods of normal facility/unit operation and appropriate weather conditions. **[45CSR§30-5.1.c.]** (*Emission Unit: SC068 - Prill Tower Air Scrubber*)

- 11.2.2. The Molten Salt Furnace (R900) shall demonstrate compliance with 11.1.2. by firing only pipeline quality natural gas. **[CO-SIP-C-2003-27 § V.3.]**

11.3. Testing Requirements

- 11.3.1. At such reasonable times as the Director may designate, the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.
[45CSR§7-8.1.]

11.3.2. The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions.
[45CSR§7-8.2.]

11.3.3. At such reasonable times as the Director may designate, the owner or operator of any fuel burning unit(s) may be required to conduct or have conducted tests to determine the compliance of such unit(s) with the emission limitations of section 4 of 45CSR2 (11.1.5.). Such tests shall be conducted in accordance with the appropriate method set forth in the Appendix to this rule or other equivalent EPA approved method approved by the Director. The Director, or his duly authorized representative, may at his option witness or conduct such tests. Should the Director exercise his option to conduct such tests, the operator will provide all necessary sampling connections and sampling ports located in such manner as the Director may require, power for test equipment, and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.

The Director, or his duly authorized representative, may conduct such other tests as he may deem necessary to evaluate air pollution emissions other than those noted in subsection 4.1. of 45CSR2.

[45CSR§2-8.1.b. and 8.1.c.] (*Emission Unit: R900 – Molten Salt Furnace*)

11.4. Recordkeeping Requirements

11.4.1. Records of the visible emissions observations required by 11.2.1. shall document the date and time of each visible emissions check, the name of the responsible observer, the results of the check, and if necessary, all corrective actions taken. These records shall be maintained according to permit condition 3.4.2.
[45CSR§30-5.1.c.]

11.4.2. The owner or operator shall maintain records of the operating schedule and the quantity and quality of fuel consumed in each fuel burning unit in a manner to be established by the Director. Such records are to be maintained on-site and made available to the Director or his duly authorized representative upon request.
[45CSR§2-8.3.c.] (*Emission Unit: R900 – Molten Salt Furnace*)

11.4.3. You must keep records according to paragraphs (1) and (2) of this condition.

(1) A copy of each notification and report that you submitted to comply with 40 C.F.R. 63 Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in 40 C.F.R. §63.10(b)(2)(xiv).

(2) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in 40 C.F.R. §63.10(b)(2)(viii).

[40 C.F.R. §63.7555(a); 45CSR34] (*Emission Unit: R900 – Molten Salt Furnace*)

11.4.4. Format and Retention of Records for 40 C.F.R. 63 Subpart DDDDD

(a) Your records must be in a form suitable and readily available for expeditious review, according to 40 C.F.R. §63.10(b)(1).

(b) As specified in 40 C.F.R. §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

- (c) You must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 C.F.R. §63.10(b)(1). You can keep the records off site for the remaining 3 years.

[40 C.F.R. §§63.7560(a), (b), and (c); 45CSR34] (*Emission Unit: R900 – Molten Salt Furnace*)

11.5. Reporting Requirements

11.5.1. You must submit a Compliance report for 40 C.F.R. 63 Subpart DDDDD containing:

- a. The information in §63.7550(c)(5)(i) through (iv), (xiv), and (xvii) which is:
 - (i) Company and Facility name and address.
 - (ii) Process unit information, emissions limitations, and operating parameter limitations.
 - (iii) Date of report and beginning and ending dates of the reporting period.
 - (xiv) Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual tune-up according to 40 C.F.R. §63.7540(a)(10). Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown.
 - (xvii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

You must submit the report annually according to the requirements in 40 C.F.R. §63.7550(b), which are:

- (1) The first compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in 40 C.F.R. §63.7495 (condition 11.1.7.) and ending on July 31 or January 31, whichever date is the first date that occurs at least one (1) year after the compliance date that is specified for your source in 40 C.F.R. §63.7495 (condition 11.1.7.).
- (2) The first annual compliance report must be postmarked or submitted no later than January 31.
- (3) Each subsequent annual compliance report must cover the 1-year period from January 1 to December 31.
- (4) Each subsequent annual compliance report must be postmarked or submitted no later than January 31.

You must submit all reports required by Table 9 of 40 C.F.R. 63 Subpart DDDDD electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to 40 C.F.R. 63 Subpart DDDDD is not available in CEDRI at the time that the report is due the report you must submit the report to the Administrator at the appropriate address listed in 40 C.F.R. §63.13. At the discretion of the Administrator, you must also submit these reports, to the Administrator in the format specified by the Administrator.

[40 C.F.R. §§63.7550(a), (b), (c)(1), (c)(5)(i) through (iii), (xiv), and (xvii) and Item 1.a. of Table 9 to Subpart DDDDD; 40 C.F.R. §63.7550(h)(3); 45CSR34] *(Emission Unit: R900 – Molten Salt Furnace) If the permittee installs a continuous oxygen trim system as defined in 40 C.F.R. §63.7575 on the Molten Salt Furnace, then the tune-up frequency will change to every five (5) years and the corresponding 5-year tune-up requirements in §63.7500(a)(1), Table 3, Item #1; §63.7540(a)(12); §63.7550(a), Table 9; and §63.7550(b) will become effective for the Molten Salt Furnace (R900).*

11.6. Compliance Plan

11.6.1. Reserved.

12.0 Requirements for Plant Paint Spray Booth Emission Points: E020 – Paint Spray Booth Filter (FF013) and E021 – Paint Spray Booth Filter (FF014)

12.1. Limitations and Standards

12.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity. These provisions shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period. (*Emission Unit: PB001 – Paint Spray Booth*) [45CSR§§7-3.1. and 3.2.]

12.1.2. Total emissions to the atmosphere from Emission Points E020 and E021 shall not exceed the following:

| Pollutant | Total Emissions | |
|----------------------------------|-----------------|-----------------|
| | Hourly (lb/hr) | Annual* (lb/yr) |
| Volatile Organic Compounds (VOC) | 10.0 | 14,300 |
| Particulate Matter | 0.5 | 263 |

(*Emission Units: FF013 – Paint Spray Booth Filter; FF014 – Paint Spray Booth Filter*)

* “Annual” in this case means a 12-month rolling total.

[45CSR13, R13-1664, (A); Permit Determination Request Letter dated September 26, 1996 to G. Dale Farley from J. Thomas Horan; 45CSR§30-5.1.c.]

12.1.3. The spray paint booth (PB001) shall be equipped with filters which shall remove a minimum of 95% of particulate emissions. [45CSR13, R13-1664, (B)(2)]

12.2. Monitoring Requirements

12.2.1. For the purpose of determining compliance with the opacity limits of 12.1.1., the permittee shall check to see that the static pressure reading from the manometer on the outlet filter wall is within the range of 0.01 and 0.17 inches of water on a daily basis when the Paint Spray Booth is in use. [45CSR§30-5.1.c.]

12.2.2. For the purpose of determining compliance with the VOC emission limits established in 12.1.2., the permittee shall monitor daily and monthly cumulative VOC emissions based on paint usage. [45CSR13, R13-1664, (B)(1)]

12.2.3. For the purpose of determining compliance with the particulate matter emission limits established in 12.1.2., and 12.1.3., the permittee shall maintain records documenting when the paint booth filters are changed. [45CSR§30-5.1.c.]

12.3. Testing Requirements

- 12.3.1. During stack sampling pursuant to 45CSR§7-8.1., any stack serving any process source operation or air pollution control equipment on any process source operation shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures.
[45CSR§7-4.12.]
- 12.3.2. At such reasonable times as the Director may designate, the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.
[45CSR§7-8.1.]
- 12.3.3. The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions.
[45CSR§7-8.2.]

12.4. Recordkeeping Requirements

- 12.4.1. Log sheets of paint usage (see Appendix A, Example Data Form II) showing VOC daily usage and monthly cumulative usage shall be recorded and maintained according to permit condition 3.4.2, and shall be certified to be true and accurate by plant management. Such data shall be made available to the Director or his duly authorized representative upon request.
[45CSR13, R13-1664, (B)(1)]
- 12.4.2. Records documenting paint spray booth static pressure checks and filter change outs shall be maintained on site according to permit condition 3.4.2, and shall be certified to be true and accurate by plant management. Such data shall be made available to the Director or his duly authorized representative upon request.
[45CSR§30-5.1.c]

12.5. Reporting Requirements

- 12.5.1. Reserved.

12.6. Compliance Plan

- 12.6.1. Reserved.

13.0 Requirements for Emergency Generators and Pumps, Emission Points: E1000, E1001, E1002, E1003, E1004

13.1. Limitations and Standards

13.1.1. If you have an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013.

[40 C.F.R. §63.6595(a)(1); 45CSR34]

13.1.2. For emergency stationary CI RICE¹, you must meet the following requirements, except during periods of startup:

- a. Change oil and filter every 500 hours of operation or annually, whichever comes first;²
- b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;
- c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.³

During periods of startup you must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

¹ If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of 40 C.F.R. 63 Subpart ZZZZ, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

² Sources have the option to utilize an oil analysis program as described in 40 C.F.R. §63.6625(i) (permit condition 13.1.6.) in order to extend the specified oil change requirement in Table 2c of 40 C.F.R. 63 Subpart ZZZZ.

³ Sources can petition the Administrator pursuant to the requirements of 40 C.F.R. §63.6(g) for alternative work practices.

[40 C.F.R. §63.6602, Table 2c, Row 1; 40 C.F.R. §63.6625(h); 45CSR34]

13.1.3. At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator 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 source.

[40 C.F.R. §63.6605(b); 45CSR34]

- 13.1.4. If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
[40 C.F.R. §§63.6625(e) and 63.6625(e)(2); 40 C.F.R. §63.6640(a), Table 6, Row 9; 45CSR34]
- 13.1.5. If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.
[40 C.F.R. §63.6625(f); 45CSR34]
- 13.1.6. If you own or operate a stationary CI engine that is subject to the work, operation or management practices in item 1 of Table 2c to 40 C.F.R. 63 Subpart ZZZZ (permit condition 13.1.2.), you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c to 40 C.F.R. 63 Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c to 40 C.F.R. 63 Subpart ZZZZ (permit condition 13.1.2.a.). The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine (permit condition 13.1.4.).
[40 C.F.R. §63.6625(i); 45CSR34]
- 13.1.7. If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (1) through (3) of this condition. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (1) through (3) of this condition, is prohibited. If you do not operate the engine according to the requirements in paragraphs (1) through (3) of this condition, the engine will not be considered an emergency engine under 40 C.F.R. 63 Subpart ZZZZ and must meet all requirements for non-emergency engines.
- (1) There is no time limit on the use of emergency stationary RICE in emergency situations.
 - (2) You may operate your emergency stationary RICE for the purpose specified in paragraph (2)(i) of this condition for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (3) of this condition counts as part of the 100 hours per calendar year allowed by this paragraph (2).
 - (i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine.

The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

- (3) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (2) of this condition. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 C.F.R. §§63.6640(f)(1)-(3); 45CSR34]

13.2. Monitoring Requirements

- 13.2.1. Reserved.

13.3. Testing Requirements

- 13.3.1. Reserved.

13.4. Recordkeeping Requirements

- 13.4.1. You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan (permit condition 13.1.4.) if you own or operate an existing stationary emergency RICE.

[40 C.F.R. §§63.6655(e) and 63.6655(e)(2); 45CSR34]

- 13.4.2. If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

[40 C.F.R. §§63.6655(f) and 63.6655(f)(1); 45CSR34]

- 13.4.3. **Form and Retention of Records for 40 C.F.R. 63 Subpart ZZZZ.**

(a) Your records must be in a form suitable and readily available for expeditious review according to 40 C.F.R. §63.10(b)(1).

(b) As specified in 40 C.F.R. §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 C.F.R. §63.10(b)(1).

[40 C.F.R. §§63.6660(a), (b), and (c); 45CSR34]

13.5. Reporting Requirements

- 13.5.1. You must report each instance in which you did not meet each limitation in Table 2c to 40 C.F.R. 63 Subpart ZZZZ (permit condition 13.1.2.). These instances are deviations from the emission and operating limitations in 40 C.F.R. 63 Subpart ZZZZ. These deviations must be reported according to the requirements in 40 C.F.R. §63.6650 (permit condition 13.5.3.).
[40 C.F.R. §63.6640(b); 45CSR34]
- 13.5.2. You must also report each instance in which you did not meet the requirements in Table 8 to 40 C.F.R. 63 Subpart ZZZZ that apply to you.
[40 C.F.R. §63.6640(e); 45CSR34]
- 13.5.3. The permittee must report all deviations as defined in 40 C.F.R. 63 Subpart ZZZZ in the semiannual monitoring report required by permit condition 3.5.6.
[40 C.F.R. §63.6650(f); 45CSR34]

13.6. Compliance Plan

- 13.6.1. Reserved.

APPENDIX A

Example Data Forms

Example Data Form I
CERTIFICATION OF DATA ACCURACY
(7.0 HCl; R13-2046)

I, the undersigned, hereby certify that all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete based on information and belief after reasonable inquiry.

Signature¹ _____
(please use blue ink) Responsible Official or Authorized Representative Date

Name & Title _____
(please print or type) Name Title

Telephone No. _____ Fax No. _____

- ¹ This form shall be signed by a “Responsible Official.” “Responsible Official” means one of the following:
- a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
 - (i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or
 - (ii) the delegation of authority to such representative is approved in advance by the Director;
 - b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
 - c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of U.S. EPA); or
 - d. The designated representative delegated with such authority and approved in advance by the Director.

Example Data Form II
Daily VOC Usage
(12.0 General; R13-1664)

Date _____

| Product or Code Name | Gallons Used | Lbs VOC/Gallon | Lbs VOC |
|-----------------------------|---------------------|-----------------------|----------------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Total VOC: | | | |

CERTIFICATION

I certify that the information shown above is true and accurate to the best of my knowledge and that I have made every reasonable effort to confirm such truth and accuracy.
