*West Virginia Department of Environmental Protection*
*Division of Air Quality*

*Earl Ray Tomblin*
*Governor*

*Randy C. Huffman*
*Cabinet Secretary*

# Permit to Operate

Pursuant to

**Title V**

of the Clean Air Act

*Issued to:*

**SABIC Innovative Plastics US LLC**
**Washington, WV**
**R30-10700010-2012**

*John A. Benedict*
*Director*

*Issued: Draft/Proposed • Effective: [Equals issue date plus two weeks]*
*Expiration: [5 years after issuance date] • Renewal Application Due: [6 months prior to expiration]*

Permit Number: **R30-10700010-2012**
Permittee: **SABIC Innovative Plastics US LLC**
Permittee Mailing Address: P.O.Box 68, Washington, WV 26181

*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: | 9226 Dupont Road, Washington, Wood County, West Virginia |
| Facility Mailing Address: | Same as Permittee Mailing Address above |
| Telephone Number: | 304-863-7231 |
| Type of Business Entity: | LLC |
| Facility Description: | Thermoplastic Manufacturing |
| SIC Codes: | 2821 |
| UTM Coordinates: | 441.6 km Easting • 4345.2 km Northing • Zone 17 |

Permit Writer: U.K.Bachhawat

*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.*

## Table of Contents

**1.0. Emission Units and Active R13 Permits** ..... 4

**2.0. General Conditions** ..... 14

**3.0. Facility-Wide Requirements and Permit Shield** ..... 23

**Source-specific Requirements**

**4.0. Tank Farm Requirements [Emission Point ID(s): Emission Unit Group 009]** ..... 35

**5.0. Boiler House Requirements [Emission Point ID(s): 007-03, 04 & 06]** ..... 44

**6.0. Wastewater Treatment Plant Requirements [Emission Point ID(s): 008-06]** ..... 56

**7.0. Latex Processing Area [Emission Point ID(s): LX1, LX 4-8, LX11, 13 & 14]** ..... 58

**8.0. Resin Process [Emission Point ID(s): RA1, 2, 5; RN1; RC1, 2, 3; RN1; RE1, 2, 3; RG1, 2, 3; RJ 1 to 6; 10J-V26013]** ..... 65

**9.0. Technology Center Extruders – S and V lines [Emission Point ID(s): WS-E1, E2 & E3; WV-E1, E2 & E3]** ..... 76

**10.0. Pilot Plant & QC Lab [Emission Point ID(s): 001-02 & QC1]** ..... 80

**11.0. Bulk Solids (Resin/Pellet) Transfer [Emission Point ID(s): 55-57, 55-95, E-1, E-2, SC-28, SC-29, SC-33, SC-34, SC-45, SC-46, SC A1-1, SC A1-2, C-5 & ABS Resin Dust Collector]** ..... 82

**12.0. 45CSR21 Requirements.** ..... 86

**13.0. 45CSR27 Requirements** ..... 90

**14.0. Reciprocating Internal Combustion Engines [Emission Point ID(s):EG1, 00H-01, 00H-02 & 00H-03]** ..... 94

**APPENDIX 1: CERTIFICATION OF DATA ACCURACY**
**APPENDIX 2: Attachment A of R13-2678A**
**APPENDIX 3: Dust Collector List***
***For informational purposes only**

# 1.0 Emission Units and Active R13 Permits (For informational purposes only, not enforceable requirements)

## 1.1. Emission Units

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Design Capacity | Control Device |
|---|---|---|---|---|---|
| ***Tank Farm / Bulk Loading - Emission Unit Group 009*** | | | | | |
| none | 009-0S (TF7) | Barge Unloading Station | 1960's | N/A | none |
| none | 009-0Y (TF7) | Railcar and Truck Unloading Stations (unloading transfer racks #1, #2) | 1956 | N/A | none |
| none | 009-0R | Styrene Loading Station | 1963 | N/A | none |
| 12-08033 | 009-0T | Fuel Dispensing Station: Above Ground Unleaded gasoline Tank | 1991 | 1,130 gal | none |
| 12-08032 | 009-0T | Fuel Dispensing Station: Above Ground Road grade diesel fuel Tank | 1991 | 1,130 gal | none |
| none | 009-0U | Latex Loading Station (Poly BD Loading) (Receiving Truck Vent) | 1992 | N/A | none |
| 09-25078 | 009-0V | Acrylonitrile Storage Tank, north | 1967 | 500,000 gal | Fixed Roof + Internal floating roof |
| 09-25075 | 009-0Q (TF1) | Acrylonitrile Storage Tank, south | 1963 | 500,000 gal | Fixed Roof + Internal floating roof |
| 09-25048 | 009-0C | Styrene Storage Tank #4 | 1962 | 500,000 gal | none |
| 09-25049 | 009-0D | Styrene Storage Tank #5 | 1962 | 500,000 gal | none |
| 09-25076 | 009-0E | Styrene Storage Tank #6 | 1970 | 500,000 gal | none |
| 09-25082 | 009-0F | Styrene Storage Tank #7 | 1970 | 580,000 gal | none |
| 09-25001 | 009-04 | Alpha-Methyl Styrene Tank | 1956 | 30,000 gal | none |
| 09-25002 | 009-05 | Alpha-Methyl Styrene Tank | 1956 | 30,000 gal | none |
| 09-25003 | 009-06 | Alpha-Methyl Styrene Tank | 1956 | 30,000 gal | none |
| 09-25094 | 009-07 | Alpha-Methyl Styrene Tank | 1979 | 30,000 gal | none |
| 09-25010 | LX-14; 009-09 | Butyl AcrylateTank, north | 1957 | 30,000 gal | 30B-12130 |
| 09-25011 | LX-14; 009-0A | Butyl AcrylateTank, south | 1957 | 30,000 gal | 30B-12130 |
| 09-25009 | LX-14; 009-08 | Methyl Methacrylate Tank | 1957 | 30,000 gal | 30B-12130 |
| 10-08105 | 009-0G | Divinyl BenzeneTank | 1986 | 3,000 gal | none |
| 09-25100 | 009-15 | Sulfuric Acid Tank, east | 1991 | 20,000 gal | none |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Design Capacity | Control Device |
|---|---|---|---|---|---|
| 09-25099 | 009-16 | Sulfuric Acid Tank, west | 1991 | 20,000 gal | none |
| 09-25103 | 009-14 | Cumene HydroperoxideTank | 1997 | 13,000 gal | none |
| 09-25050 | not applicable | 1,3-Butadiene Pressure Sphere | 1962 | 200,000 gal | none |
| 09-25074 | not applicable | 1,3-Butadiene Pressure Sphere | 1963 | 400,000 gal | none |
| 09-25077 | not applicable | 1,3-Butadiene Pressure Sphere | 1966 | 400,000 gal | none |
| 09-25083 | not applicable | 1,3-Butadiene Pressure Sphere | 1969 | 400,000 gal | none |
| ***Boiler House - Emission Unit Group 007*** | | | | | |
| 03-01003 | 007-03 | Boiler #3 | 1966 | 72 mmBtu/hr | none |
| 03-01004 | 007-04 | Boiler #4 | 1966 | 132 mmBtu/hr | none |
| 03-01005 | 007-06 | Boiler #5 | 2004 | 146 mmBtu/hr | none |
| 04-07001 | 007-05 | Cooling Tower #1 | 1967 | 2,500 gpm | none |
| 04-07003 | 007-05 | Cooling Tower #3 | 1989 | 2,500 gpm | none |
| ***Wastewater Treatment Plant - Emission Unit Group 008*** | | | | | |
| WWTP (WW1) | 008-06 | Wastewater Treatment Process | 1970 | 2,500 gpm | none |
| ***Latex Process Area*** | | | | | |
| 30B-01002 | 001-01 (LX1) aka. (L1) | Latex Building A and Building B Process Equipment and Recovery System (all to flare) | 1963-1969; 1972 | CBI | Latex Area Flare: 30B-01002 |
| 30B-08305, 30B-08306 | 001-02 (LX5) | Latex Area BD Wash Tanks ( Decant Losses) | 1957 | CBI | None |
| 30B-08405 | 001-03 (LX7) | Flare Knockout Tank Drain | 1988 | CBI | None |
| 30A-08046, 30B-08388 | 001-04 (LX6) | ER Knockout Tanks Drains | 1957 | CBI | None |
| Various | 001-05 (LX14) | Latex Blend Tanks and Screeners | 1957 | CBI | Latex Area CTO: 30B-12130 |
| 30B-25109 | 001-06 (LX4) | Latex Blend Tank #38 (Latex blend tanks) | 1967 | CBI | None |
| None | 001-07 (LX8)(CGL) | Latex Coag Pits | 1957 | CBI | None |
| 30A-08267, 30A-08088 | 001-0A (LX11) | Latex Activator. Mix and Charge Tank | 1957 | CBI | None |
| 30B-08445 | 001-0C (LX13) | Latex Area BD Recovery Decant Tank | Not Available | CBI | None |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Design Capacity | Control Device |
|---|---|---|---|---|---|
| ***Resin A Process area*** | | | | | |
| Various | 002-01 (RA1) aka (10A-V28) | Resin Building A Reactor-Coagulation-Vacuum System | 1962 | CBI | Resin A Catalytic Incinerator: (10A-12021) |
| 10A27002, 10A27003 | 002-02 (RA2) aka (10A-V32, 10A-V34) | Resin A Predryer and Dryer | 1962, 1974 | CBI | Resin A Dryer stack (EP202); Dust collector (10A-26022 - Integral to Process) |
| 10A-25019, 10A-25020, 10A-25046, 10A-25060, 10A-25062 | 002-08 (RA5) aka (10A-V16, 10A-V18, 10A-V20, 10A-V22, 10A-V24) | Resin A Blend Tanks (5)<br><br>(aka: Latex Storage Tanks) (LST #2, 4 to 7) | 1963; 1974 | CBI | None |
| 10A-25058 10A-25059 | OOD-01 (RN1) aka (10A-V36, 10A-V38, 10A-V40, 10A-V42 - vent ID#s) | Resin A Transfer | 1962 | CBI | Scale Tank Dust Collectors 10A-26024 and 10A-26025 - Integral to Process |
| ***Resin C Process area*** | | | | | |
| 10C27005 | 003-02 (RC2) aka (C-2) | Resin C Fluidized Bed Dryer | 1990 | CBI | Carbon bed |
| 10C25026, 10C25027, 10C25028, 10C25045, 10C25046 | 003-03 (RC3) | Resin C Blend Tanks (5) LST #4 to 8 | 1960; 1974 | CBI | None |
| 10C-25042 10C-25043 | OOD-01 (RN1) | Resin C Transfer | 1960 | CBI | Scale Tank Dust Collectors 10C-26024 and 10C-26025 - Integral to Process |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Design Capacity | Control Device |
|---|---|---|---|---|---|
| Reactor #3 (10C-04008) Reactor #4 (10C-04009) Reactor #5 (10C-04010) Coag #2 Tank (10C-08115) Melt Tank (10C-08111) Mix tank (10C-08112) Feed Tank (10C-08114) Feed Tank (10C-08113) Vacuum Drum Filter (10C-28052) | 003-01 (RC1) aka (C1) | Resin Building C Reactor-Coagulation-Vacuum System<br><br>Reactor #3 (10C-04008) Reactor #4 (10C-04009) Reactor #5 (10C-04010) Coag #2 Tank (10C-08115) Melt Tank (10C-08111) Mix tank (10C-08112) Feed Tank (10C-08114) Feed Tank (10C-08113) Vacuum Drum Filter (10C-28052) | 1960 | CBI | (Resin C Catalytic Incinerator: 10C-01002) |
| ***Resin E Process area*** | | | | | |
| 10E-01002 | 004-01 (RE1) aka (10E-V56) | Resin Building E Reactor-Coagulation-Vacuum System | 1962 | CBI | Resin E Catalytic Incinerator (10E-01002)[1] |
| 10E-27001 | 004-02 (RE2) aka (10E-V60) | Resin E Rotary Dryer | 1963 | CBI | Dust Collector 10E-26021 - Integral to Process |
| 10E-25051, 10E-25052, 10E-25053, 10E-25054, 10E-25055, 10E-25064, 10E-25066 | 004-03 (RE3) aka (10E-V38, 10E-V40, 10E-V42, 10E-V44, 10E-V46, 10E-V48, 10E-V50) | Resin E Blend Tanks (7)<br><br>aka Latex Storage Tanks (LST #1-5, 7 & 8) | 1962 | CBI | Resin E Catalytic Incinerator (10E-01002)[1] |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Design Capacity | Control Device |
|---|---|---|---|---|---|
| 10E-25056, 10E-25057 | OOD-01 (RN1) aka 10E-V62, 10E-V64, 10E-V66, 10E-V68, 10E-V70, 10E-V72 10E-V74 | Resin E Transfer | 1962 | CBI | Scale Tank Dust Collectors 10E-26004 and 10E-26005 - Integral to Process |
| ***Resin G Process area*** | | | | | |
| 10G-01001 | 005-01 (RG1)(G1) | Resin Building G Reactor-Coagulation-Vacuum System | 1965 | CBI | Resin G Catalytic Incinerator: 10G-01001 |
| 10G-27001 | 005-02 (RG2)(G2) | Resin G Rotary Dryer | 1965 | CBI | Dust Collector 10G-26001- Integral to Process |
| 10G-25001, 10G-25002, 10G-25003, 10G-25004, 10G-25005, 10G25009 | 005-03 (RG3) | Resin G Blend Tanks (6) (aka: Latex Storage Tanks) (LST # 1 to 6) | 1965 | CBI | None |
| 10G-25007 10G-25008 | OOD-01 (RN1) | Resin G Transfer | 1965 | CBI | Scale Tank Dust Collectors10G-26004,10G-26005 Integral to Process |
| ***Resin J Process area*** | | | | | |
| 10J-01001 | 006-01 (RJ1) aka (10J-V14) | Resin Building J Reactor-Coagulation-Vacuum System | 1965 | CBI | Resin J Catalytic Incinerator (10J-01001)[1] |
| 10J27001 | 006-02 (RJ2) aka (10J-V20) | Resin J Rotary Dryer | 1965/66 | CBI | Dryer D/C 10J-26001 - Integral to Process |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Design Capacity | Control Device |
|---|---|---|---|---|---|
| 10J-25003, 10-J25004, 10J-25005, 10J-25011 | 006-03 (RJ3) aka (10J-V04, 10J-V06, 10J-V08, 10J-V10) | Resin J Blend Tanks (4)<br><br>(aka: Latex Storage Tanks) (LST # 3 to 6) | 1966 | CBI | None |
| 10J-04007 | 00N-01 (RJ4) aka (09-12010) | PBA Production Equipment (Process) (Mix Tank, Feed Tank, 30 gallon reactor mix pot, reactor, Latex Hold Tank, Startup Tank, and Latex Storage Tanks #1, 2, 3, and 6) | 1996 | CBI | Caustic Scrubber/Carbon Canister: 09-12010 |
| 10J-08011 | 00N-03 (RJ5) aka(10J-V26014) | PBA Reactor Solution Tanks (Activator Make-up Tank, Activator Feed Tank, Sol'n Makeup Tank, Makeup Tank, Feed Tank, Solution Makeup Tank, Solution Feed Tank, Solution Feed Tank and Solution Feed Tank) | 1996 | CBI | None |
| 10J-08097 | 10J-V26013 | Supersack Hopper | 1996 | CBI | Dust collector 10J-26015, Integral to Process |
| 10J-25013, 10J25014 | (RJ6) | PBA Latex storage tanks #4 and #5 (when Resin A Cat. Ox. Is not operating) | 1976 | CBI | Resin A Catalytic Incinerator: (10A-12021)[1] OR Carbon Canister system (RJ6) 09-12010 |
| 10J-08083 | none | SFS Additive Storage Tank | 1996 | CBI | None |
| 10J-25007, 10J-25008 | OOD-01 (RN1) aka(10J-V18 10J-V22 10J-V24 10J-V26) | Resin J Transfer | 1966 | CBI | Scale Tank Dust collectors 10J-26004,10J-26005, Integral to Process |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Design Capacity | Control Device |
|---|---|---|---|---|---|
| ***Converting Lab*** | | | | | |
| 00O-02 | WS-E1, WS-E2 | WS Extruder (WS-X1), WS screens (WS-S1) | 1965, 1988 | CBI | None |
| 00O-02 | WS-E3 | WS Resin Feeder 1 (WS-F1), WS Resin Feeder 2 (WS-F2), WS Hopper 1 (WS-H1), WS Hopper 2 (WS-H2), WS Hopper 3 (WS-H3), WS Hopper 4 (WS-H4), Overflow to extruder (WS-X1), Chute to Extruder (WS-X1) | 1965, 1988 | CBI | WS-DC1 (Dust collector/ baghouse) (015-26012) |
| 00O-01 | WV-E1 | WV Extruder (WV-X1) | 1965, 1988 | CBI | None |
| 00O-01 | WV-E2 | WV Overflow to Extruder (WV-X1) | 1965, 1988 | CBI | None |
| 00O-01 | WV-E3 | WV Resin Feeder 1 (WV-F1), WV Resin Feeder 2 (WV-F2), WV Hopper 1 (WV-H1), WV Hopper 2 (WV-H2), WV Hopper 3 (WV-H3), Chute to Extruder (WV-X1) | 1965, 1988 | CBI | WV-DC1 (Dust Collector/ baghouse) (015-26013) |
| ***Laboratories*** | | | | | |
| 22A27006 (QCL) | 00E-03 (QC1) | Quality Control Lab | 1960 | N/A | None |
| ***Pilot Plant*** | | | | | |
| 1904006, 1904006, 1904009 (ABS) | 00I-02 (PP1) | Pilot Plant | 1957 | N/A | None |
| ***Stationary Internal Combustion Engines*** | | | | | |
| 07-16104 | EG-1 | WWTP Emergency Generator – 4 cycle CI emergency engine | 2002 | 483 HP | None |
| 04-09002 | 00H-01 | Diesel Fire Pump 1– 4 cycle CI emergency engine | 1957 | 195 HP | None |
| 04-09017 | 00H-02 | Diesel Fire Pump 2– 4 cycle CI emergency engine | 1957 | 255 HP | None |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Design Capacity | Control Device |
|---|---|---|---|---|---|
| 01-16201 | 00H-03 | Gate House Generator – 4 cycle SI emergency engine | 2004 | 120 HP | None |
| ***Bulk Resin and Pellet Transfer Systems*** | | | | | |
| 11B-25001; | SC-28 | Silo #28 | 1966 | CBI | Dust collectors (2) 11B-26050, 11B-26021, Integral to Process |
| 11B-25002; | SC-29 | Silo #29 | 1966 | CBI | Dust collectors (2) 11B-26051, 11B-26022, Integral to Process |
| 11A25076; | SC-33 | Silo #33 | 1967 | CBI | Dust collectors (2) 11A-26100, 11A-26054, Integral to Process |
| 11A-25077; | SC-34 | Silo #34 | 1967 | CBI | Dust collectors (2) 11A-26101, 11A-26053, Integral to Process |
| 10E-25060; | SC-45 | Silo #45 | 1971 | CBI | Dust collector 10E-26019, Integral to Process |
| 10E-25061; | SC-46 | Silo #46 | 1971 | CBI | Dust collector 10E-26020, Integral to Process |
| 10A-25058 | SC A1-1 | Scale Tank (Resin A Scale Tank) | 1962 | CBI | Dust collector C A1, Integral to Process |
| 10A-25059 | SC A1-2 | Scale Tank (Resin A Scale Tank) | 1962 | CBI | Dust collector C A1, Integral to Process |
| 10C-25047 (S-1) | SC-48 aka (E-1, E-2) | Silo #48 - Dust Collectors C-1 & C-2 | 1976 | CBI | Dust collectors 10C-26010, 10C-26011, Integral to Process |
| 12-26029 | 12-10035 | Railcar Spot #15 (#3 resin loading) | 1989 | CBI | Dust collector 12-26029, Integral to Process |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Design Capacity | Control Device |
|---|---|---|---|---|---|
| 11A-25078 | 55-57 | Silo #57 | 1989 | CBI | Dust collector 11A-26071, Integral to Process |
| 12-25007 | 55-95 | Silo #95 | 1989 | CBI | Dust collector 12-26030, Integral to Process |
| 10C-12040 | C-5 | Automatic bagging system (Resin C Resin Automatic Bagging System) | 1989 | CBI | Dust collector, Integral to Process |
| **Additional Site Dust Collectors, Silos, and Rail/Truck Loading Stations are included in Appendix 3 – Dust Collector List** | | | | | |

1= One control device for two sources. The site calculates emissions separately before applying the control efficiency for ease of calculation and for better process information.

## 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 |
|---|---|
| R13-0009B | April 5, 2010 |
| R13-2486A | March 15, 2005 |
| R13-1886F | July 28, 2011 |
| R13-2084C | February 18, 2009 |
| R13-2572B | March 31, 2010 |
| R13-2678A | July 28, 2011 |
| R13-2288C | September 14, 2006 |
| R13-1588D | April 4, 2012 |
| R13-1351A | February 22, 2002 |
| R13-1133A | March 7, 2002 |

| Permit Number | Date of Issuance |
|---|---|
| R13-1097 | May 9, 1989 |
| R13-1069 | December 30, 1988 |
| R13-1009A | October 9, 2003 |
| R13-0992B | October 14, 2003 |
| R13-0658B | July 28, 2011 |
| R13-0301A | March 7, 2002 |

# 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 such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). 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 |
| **CBI** | Confidential Business Information |
| **CEM** | Continuous Emission Monitor |
| **CES** | Certified Emission Statement |
| **C.F.R. *or* CFR** | Code of Federal Regulations |
| **CO** | Carbon Monoxide |
| **C.S.R. *or* CSR** | Codes of State Rules |
| **DAQ** | Division of Air Quality |
| **DEP** | Department of Environmental Protection |
| **FOIA** | Freedom of Information Act |
| **HAP** | Hazardous Air Pollutant |
| **HON** | Hazardous Organic NESHAP |
| **HP** | Horsepower |
| **lbs/hr *or* lb/hr** | Pounds per Hour |
| **LDAR** | Leak Detection and Repair |
| **m** | Thousand |
| **MACT** | Maximum Achievable Control Technology |
| **mm** | Million |
| **mmBtu/hr** | Million British Thermal Units per Hour |
| **mmft$^3$/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 |
| **NSPS** | New Source Performance Standards |
| **PM** | Particulate Matter |
| **$PM_{10}$** | Particulate Matter less than 10μm in diameter |
| **pph** | Pounds per Hour |
| **ppm** | Parts per Million |
| **PSD** | Prevention of Significant Deterioration |
| **psi** | Pounds per Square Inch |
| **SIC** | Standard Industrial Classification |
| **SIP** | State Implementation Plan |
| **$SO_2$** | Sulfur Dioxide |
| **TAP** | Toxic Air Pollutant |
| **TPPU** | Thermoplastic Product Process Unit |
| **TPY** | Tons per Year |
| **TRS** | Total Reduced Sulfur |
| **TSP** | Total Suspended Particulate |
| **USEPA** | United States Environmental Protection Agency |
| **UTM** | Universal Transverse Mercator |
| **VEE** | Visual Emissions Evaluation |
| **VOC** | Volatile Organic Compounds |

## 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§30-2.39]**

## 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. Emergency

2.17.1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
**[45CSR§30-5.7.a.]**

2.17.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of 45CSR§30-5.7.c. are met.
**[45CSR§30-5.7.b.]**

2.17.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. The permitted facility was at the time being properly operated;

c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

d. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, the permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

**[45CSR§30-5.7.c.]**

2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
**[45CSR§30-5.7.d.]**

2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.
**[45CSR§30-5.7.e.]**

## 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. and 45CSR38]**

## 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 submitted 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. Emissions sources and the associated emission points affected by permit R13-1886 and subject to 45CSR21 shall be subject to the standards and requirements set forth in Section 4.0 of permit R13-2678, as incorporated in Section 12 of this permit.
**[45CSR13, R13-1886, 4.1.9]**

3.1.10. Emissions sources and the associated emission points affected by permit R13-1886 and subject to 45CSR27, shall be subject to the standards and requirements set forth in Section 5.0 of permit R13-2678, as incorporated in Section 13 of this permit.
**[45CSR13, R13-1886, 4.1.10]**

3.1.11. Reserved

3.1.12. **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 R13-1886, R13-0658 and permit R13-2678 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, R13-1886, 4.1.12] [45CSR13, R13-2678, 4.1.3] [45CSR13, R13-0658, 4.1.9] [45CSR13, R13-2678, 5.1.4, State-Enforceable Only]**

3.1.13. For the emission units listed in Section 1.0 of permit R13-1886, the permittee shall comply with all applicable requirements of 45CSR7 and any more stringent limits or requirements set forth in R13-1886.
**[45CSR13, R13-1886, 4.1.8]**

3.1.14. Emission of Visible Particulate Matter --No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from the Latex Area Flare (30B-01002), the Latex Area CTO (30B-12130), or the five Resin incinerators (10A-12021, 10C-01002, 10E-01002, 10G-01001, and 10J-01001) that is twenty (20%) percent opacity or greater.
**[45CSR§6-4.3]**

3.1.15. The provisions of Section 3.1.14 of this permit 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.
**[45CSR§6-4.4]**

3.1.16. No person shall cause, suffer, allow or permit the emission of particles of unburned or partially burned refuse or ash from any incinerator listed in Section 3.1.14 which are large enough to be individually distinguished in the open air.
**[45CSR§6-4.5]**

3.1.17. The incinerators listed in Section 3.1.14, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.
**[45CSR§6-4.6]**

3.1.18. The permittee shall give the utmost care and consideration to the potential harmful effects of the emissions resulting from the incineration of hazardous materials in the incinerators listed in Section 3.1.14.

Evaluation of these facilities as to adequacy, efficiency and emission potential will be made on an individual basis by the Director, working in conjunction with other appropriate governmental agencies.
**[45CSR§6-4.7]**

3.1.19. Due to unavoidable malfunction of equipment, emissions from an incinerator listed in Section 3.1.14 exceeding those provided for in 45CSR6 may be permitted by the Director for periods not to exceed five (5) 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.
**[45CSR§6-8.2]**

3.1.20. 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, except as noted in Section 3.1.21 of this permit.
**[45CSR§7-3.1]**

3.1.21. The provisions of Section 3.1.20 of this permit 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.
**[45CSR§7-3.2]**

3.1.22. No person shall cause, suffer, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to Section 3.1.26 of this permit is required to have a full enclosure and be equipped with a particulate matter control device.
**[45CSR§7-3.7]**

3.1.23. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air 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 specified under the appropriate source operation type in Table 45-7A found at the end of 45CSR7.
**[45CSR§7-4.1]**

3.1.24. No person shall circumvent the provisions of 45CSR7 by adding additional gas to any exhaust or group of exhausts for the purpose of reducing the stack gas concentration.
**[45CSR§7-4.3]**

3.1.25. 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 that emits particulate matter and is subject to stack testing 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]**

3.1.26. 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.
**[45CSR§7-5.1]**

3.1.27. 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]**

3.1.28. 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]**

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

3.1.30. Each heat exchange system in the TPPU is subject to 40 C.F.R. §63.1328 and, accordingly, shall comply with 40 C.F.R. §63.104, with the differences noted in paragraphs (c) through (h) of 40 C.F.R §63.1328.

3.1.31. Each process wastewater discarded from the TPPU is subject to 40 C.F.R. §63.1330(b) (except as specified in paragraphs (d) and (e) of 40 C.F.R. §63.1330) and, accordingly, shall comply with 40 C.F.R. §§63.132 through 63.149, with the differences noted in paragraphs (1) through (22) of 40 C.F.R. §63.1330(b).

3.1.32. Each maintenance wastewater generated in the TPPU is subject to 40 CFR §63.1330(c) (except as specified in paragraphs (d) and (e) of 40 CFR §63.1330) and, accordingly, shall comply with 40 CFR §63.105, with the differences noted in §63.1330(c).

3.1.33 **Benzene Waste Operations.** The permittee is subject to the Benzene Waste Operations NESHAP (40 C.F.R. 61, Subpart FF) because the permittee owns and operates a "chemical manufacturing plant" as defined in 40 C.F.R. §61.341. The chemical manufacturing plant does not manufacture benzene, but does use a raw material in its manufacturing operations that contains benzene as a contaminant. The chemical manufacturing plant's Total Annual Benzene (TAB) quantity is less than 1 Megagram/year (Mg/yr). Pursuant to 40 C.F.R. §61.355(a)(5), the permittee shall:

a. Comply with the following record keeping requirements specified in 40 C.F.R. §§61.356(a) and (b)(1):
   i. Maintain records of the quantity of each raw material received, by shipment, that is known to contain benzene.
   ii. Maintain records of the benzene concentration in each shipment of each such raw material (either by (1) analyzing, using an EPA-approved method, a representative sample of each shipment, or (2) using a supplier's analysis for the shipment, or (3) using the contractual specification of the maximum benzene level allowed in the raw material).
   iii. Calculate the total benzene received in a calendar year in all such raw materials to demonstrate that this total is less than 1 Mg, and maintain a record of this calculation.
   iv. Maintain each record in a readily accessible location at the facility site for a period not less than 2 years from the date the information is recorded unless otherwise specified.

b. Submit to the WV DAQ, in accordance with 40 C.F.R. §61.357(b), a report that updates the information listed in paragraphs (a)(1) through (a)(3) of 40 C.F.R. §61.357 whenever there is a change in the process generating the waste stream that could cause the TAB quantity from facility waste to increase to 1 Mg/yr or more.

c. Repeat the determination of TAB quantity from facility waste, in accordance with 40 C.F.R. §61.355(a)(5)(ii), whenever there is a change in the process generating the waste that could cause the TAB quantity from facility waste to increase to 1 Mg/yr or more.
**[40 CFR 61, Subpart FF; 45CSR34]**

3.1.34 Site Remediation MACT. In the event the Permittee conducts a site remediation that is not exempt from 40 C.F.R. 63, Subpart GGGGG, pursuant to 40 CFR 63.7881(b), the Permittee shall comply with the applicable requirements in Subpart GGGGG with respect to such site remediation.
**[40 C.F.R. 63, Subpart GGGGG; 45CSR34]**

3.1.35. **New applicable requirements.** If any applicable requirement becomes effective 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.]**

## 3.2. Monitoring Requirements

3.2.1. Each emissions unit in this permit with a visible emissions limit, except for the equipment identified as "Integral" in Appendix 3 of this permit, shall be observed visually at least once each calendar month during periods of facility operation for a sufficient time interval to determine if the unit has any visible emissions. These checks shall be conducted by personnel trained in the practices and limitations of 40 C.F.R. 60, Appendix A, Method 22, or 45CSR7A. If visible emissions from any such emission unit are observed during these monthly observations, or at any other time, that appear to exceed the allowable visible emission requirement for the emission unit, visible emissions evaluations in accordance with 40 C.F.R. 60 Appendix A, Method 9 or 45CSR7A, whichever is appropriate, shall be conducted as soon as practicable, but no later than two weeks from the time of the observation. A Method 9 or 45CSR7A evaluation shall not be required if the visible emissions condition is corrected in a timely manner; the emissions unit is operating at normal operating conditions; and, the cause and corrective measures taken are recorded.
**[45CSR§30-5.1.c.]**

3.2.2. Compliance with hourly limits shall be determined using monthly emission calculations and hours of operation. Compliance with annual limits shall be determined using a "Rolling Yearly Total".
**[45CSR§30-5.1.c.]**

## 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 emissions 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]**

3.3.2. As set forth under 40 CFR Part 60, Appendix A, the following test methods shall be employed for any performance stack testing required by the Director for emission units regulated under R13-1886:

a. Acrylonitrile - Method 18
b. Methyl Methacrylate - Method 18
c. Styrene - Method 18
d. Total VOC - Method 25 or 25A
e. Nitrogen Oxides - Method 7, 7B, or 7E
f. Particulate Matter - Method 9

**[45CSR13, R13-1886, 4.3.1]**

3.3.3. Code-specific process loss factors used under Sections – 8.4.1 and 8.4.2 of this permit shall be determined using the stack testing methods specified under Section 3.3.2.
**[45CSR13, R13-1886, 4.3.2]**

3.3.4. At such reasonable times as the Director may designate, the permittee shall be required to conduct or have conducted stack tests for the incinerators listed in Section 3.1.14 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.
**[45CSR§6-7.1.]**

3.3.5. The Director, or the Director's duly authorized representative, may conduct such other tests as the Director may deem necessary to evaluate air pollution emissions other than those noted above, from the incinerators listed in Section 3.1.14.
**[45CSR§6-7.2.]**

## 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, R13-1886, 4.4.1] [45CSR13, R13-0658, 4.4.1] [45CSR13, R13-2678, 4.4.1] [45CSR13, R13-2678, 5.4.1, State-Enforceable Only] [45CSR13, R13-0009, 4.4.1]**

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. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0 of permit R13-1886, R13-0658 and permit R13-2678, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
**[45CSR13, R13-1886, 4.4.2, R13-0658, 4.4.2] [R13-2678, 4.4.2, R13-2678, 5.4.2; State-Enforceable Only]**

3.4.5. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment

listed in Section 1.0 of permit R13-1886, R13-0658 and in permit R13-2678, 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, R13-1886, 4.4.3] [45CSR13, R13-2678, 4.4.3] [45CSR13, R13-0658, 4.4.3] [45CSR13, R13-2678, 5.4.3, State-Enforceable Only]**

## 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 certification to the USEPA as required in 3.5.5 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, mailed first class or by private carrier with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

| **If to the DAQ:** | **If to the US EPA:** |
|---|---|
| Director<br>WVDEP<br>Division of Air Quality<br>601 57th Street SE<br>Charleston, WV 25304<br>Phone: 304/926-0475<br>FAX: 304/926-0478 | Associate Director<br>Office of Air Enforcement and Compliance Assistance (3AP20)<br>U. S. Environmental Protection Agency<br>Region III<br>1650 Arch Street<br>Philadelphia, PA 19103-2029 |

3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality.
**[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 annual certification to the USEPA shall be submitted in electronic format only. It shall be submitted by e-mail to the following address: R3_APD_Permits@epa.gov. The permittee shall maintain a copy of the certification on site, or accessible electronically at the site, for five (5) years from submittal of the certification.
**[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.
**[45CSR§30-5.1.c.3.A.]**

3.5.7. **Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.

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. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.

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 telefax. 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.]**

## 3.6. Compliance Plan

3.6.1. None

## 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. 40 CFR 60 Subpart E - Standards of Performance for Incinerators. Basis for Applicability Determination: Applies only to burning solid waste. The facility does not have a non-hazardous incinerator.

b. 40 CFR 60 Subpart K - Standards of Performance for Storage Vessels for Petroleum Liquids constructed/modified after June 11, 1973 and prior May 19, 1978. Basis for Applicability Determination: Petroleum liquid storage vessels have capacities less than 40,000 gallons.

c. 40 CFR 60 Subpart Ka - Standards of Performance for Storage Vessels for Petroleum Liquids constructed/modified after May 18, 1978 and prior July 23, 1984. Basis for Applicability Determination: Petroleum liquid storage vessels have capacities less than 40,000 gallons.

d. 40 CFR 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) constructed/modified after July 23, 1984. Basis for Applicability Determination: All the Tanks at the facility are exempt from the requirements of the Subpart Kb based either on time when they were built, size/pressure or tank content.

e. 40 CFR 60 Subpart VV - Equipment Leaks of VOC for the Synthetic Organic Chemical Manufacturing Industry (SOCMI). Basis for Applicability Determination: The facility does not manufacture as an intermediate or final product any of the listed SOCMI chemicals.

f. 40 CFR 60 Subpart DDD - Standards of Performance for VOC Emissions from the Polymer Manufacturing Industry. Basis for Applicability Determination: The facility does not have SOCMI air oxidation unit processes.

g. 40 CFR 60 Subpart III - Standards of Performance for VOC Emissions from SOCMI Air Oxidation Unit Processes. Basis for Applicability Determination: The facility does not manufacture as an intermediate or final product any of listed SOCMI chemicals.

h. 40 CFR 60 Subpart KKK - Standards of Performance for Equipment Leaks of VOC from On-Shore Natural Gas Processing Plants. Basis for Applicability Determination: The structural wells at the facility do not meet the applicability criteria because it burns raw natural gas directly from its natural gas wells without extracting any natural gas liquids, fractionating any mixed natural gas, or sweetening the natural gas prior to burning.

i. 40 CFR 60 Subpart LLL - Standards of Performance for Onshore Natural Gas Processing; $SO_2$ Emissions. Basis for Applicability Determination: The structural wells at the facility site do not meet the applicability criteria because it burns raw natural gas directly from its natural gas wells without extracting any natural gas liquids, fractionating any mixed natural gas, or sweetening the natural gas prior to burning.

j. 40 CFR 60 Subpart NNN - Standards of Performance for VOC Emissions from SOCMI Distillation Operations. Basis for Applicability Determination: The facility does not manufacture as an intermediate or final product any of listed SOCMI chemicals.

k. 40 CFR 60 Subpart RRR - Standards of Performance for VOC Emissions from SOCMI Reactor Process. Basis for Applicability Determination: The facility does not manufacture as an intermediate or final product any of listed SOCMI chemicals.

l. 40 CFR Part 63, Subpart I - National Emission Standards for Organic Hazardous Air Pollutants for certain processes subject to the negotiated regulation for Equipment Leaks. Basis for Applicability Determination: 40CFR63, Subpart JJJ §63.1311(g)(1).

m. 40 CFR 63 Subpart U - National Emission Standards for HAPs for Group I Polymers and Resins. Basis for Applicability Determination: The Latex area is not subject to this requirement, but rather is subject to 40 CFR 63 Subpart JJJ, as stated in Subpart U under 63.480(f)(4).

n. 40 CFR Part 63, Subpart FFFF - National Emission Standards for Hazardous Air Pollutant Emissions: Miscellaneous Organic Chemical Manufacturing (MON). Basis for Applicability Determination: The facility has operations that compound solid resins produced at the site with additives to produce compounded polymer plastic resin pellets. These operations are exempted from the requirements of this Subpart per §63.2435(c) (as fabricating operations). The facility's Finishing (or Compounding) operation does not involve processing with HAP solvent and is not intended to remove residual HAP monomer.

o. The facility has only one operating scenario; therefore, the requirements of Section 2.12. "Reasonably Anticipated Operating Scenarios" are not applicable and it is not required to certify compliance with them.

p. The facility is not subject to a Compliance Plan (as per Requirement 3.6.); therefore, the requirements of Section 2.15. "Schedule of Compliance" are not applicable and it is not required to certify compliance with them.

q. The facility is not subject to Title IV of the Clean Air Act; therefore, the requirements of Section 2.25. "Acid Deposition Control" are not applicable and it is not required to certify compliance with them.

r. 40 CFR 60 Subpart D - Standards of Performance for Fossil-Fuel-fired Steam Generators constructed after August 17, 1971. Basis for Applicability Determination: Applies to steam generation units with heat input > 250 MMBtu/hr, and were constructed, reconstructed, or modified after 8/17/71. Each steam generating unit at the facility has a heat input of < 250 MMBtu/hr.

s. 40 CFR 60 Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. Basis for Applicability Determination: Applies to steam generating units with heat input > 100 MMBtu/hr which were constructed, reconstructed, or modified after 6/19/84. Neither Boiler #3 nor Boiler #4 was constructed or modified after 6/19/84, therefore they are not subject to the requirements of this Subpart. Boiler#5 is subject to the requirements of this Subpart.

t. 40 CFR 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. Basis for Applicability Determination: Applies to steam generating units with heat input of 10-100 MMBtu/hr which were constructed, reconstructed, or modified after 6/9/89. No such steam generating units at the facility were constructed or modified after 6/9/89.

u. 40 CFR 60 Subpart O - Standards of Performance for Sewage Treatment Plants. Basis for Applicability Determination: The facility does not operate a municipal treatment plant.

v. 40 CFR 63 Subpart G - National Emissions Standards for Organic HAPs from the SOCMI Process Vents, Storage Vessels, Transfer Operations, and Wastewater. Basis for Applicability Determination: Subpart G is not applicable to the facility, except as referenced by 40CFR63 Subpart JJJ, because it does not manufacture as an intermediate or final product any of the listed chemicals that would trigger applicability.

## 4.0 Tank Farm Requirements [Emission Point ID(s): Emission Unit Group 009]

### 4.1. Limitations and Standards

4.1.1. All volatile organic compounds generated and discharged from the storage tanks (Source ID's 09-25009, 09-25010, and 09-25011) shall be vented to, and combusted by, the Catalytic Thermal Oxidizer Control Device ID 30B-12130, Emission Point ID LX14 permitted under R13-2288C, including any subsequent revisions.
**[45CSR13, R13-2084, A.2]**

4.1.2. The Company shall continue to comply with the emission limits set forth in the Table below. Compliance with the emission limits shall be demonstrated by test or monitoring data, approved emission factors, material balances, and/or representative calculations in accordance with 45CSR21.

| **Emission Point /Equipment** | **VOC** | |
|---|---|---|
| | **lb/hr** | **TPY** |
| 009-0S - Barge Unloading | 2 | 0.5 |
| 009-0Q or 009-0V - Acrylonitrile Storage Tanks | 1.2 | 0.44 |
| Pressure Vessel (BD Spheres) Maintenance (09-25050, 09-25074, 09-25077, 09-25083) | 2 | 0.3 |
| 009-0U - Latex Loading Station - Rail and Truck | 37 | 2.8 |

**[45CSR21; 45CSR13, R13-1886, 4.1.7 and R13-2678, 4.1.1]**

4.1.3. The Company shall comply with the emission limits set forth in the Table below. Compliance with the emission limits shall be demonstrated by test or monitoring data, approved emission factors, material balances, and/or representative calculations in accordance with 45CSR27.

| **Emission Point / Equipment** | **Acrylonitrile, TPY** | **1,3-Butadiene** | |
|---|---|---|---|
| | | **lb/hr** | **TPY** |
| 009-0S - Barge Unloading | No limit | No limit | 0.11 |
| 009-0Y - Railcar and Truck Unloading | 0.1 | No limit | 0.03 |
| 009-0U - Latex Loading Station - Rail and Truck | No limit | 11 | 1 |
| 009-OQ or 009-OV – Acrylonitrile Storage Tanks | 0.44 | No limit | No limit |

**[45CSR13, R13-1886, 4.1.7 and R13-2678, 5.1.1]**

4.1.4. The permitted sources identified below and recognized as being subject to 45CSR27 shall comply with all applicable requirements of 45CSR27 – "To Prevent and Control the Emissions of Toxic Air Pollutants" provided, however, that compliance with any more stringent requirements under the affected 45CSR13

permit identified in Appendix 2 of this permit, are also demonstrated. The applicable requirements set forth by 45CSR27 shall include, but not be limited to, the following:

a. The permittee shall employ the best available technology (BAT) for the purpose of reducing toxic air pollutants (TAP) associated with the applicable sources and emission points identified in Appendix 2 of this permit.

b. The permittee shall employ BAT for the purpose of preventing and controlling fugitive emissions of TAP to the atmosphere as a result of routine leakage from those sources and their associated equipment identified in Appendix 2 of this permit as operating in TAP service.

| **Emission Point / Equipment** | **BAT Item** |
|---|---|
| 009-0S - Barge Unloading | Maintaining unloading valves and procedures |
| 009-0Y - Railcar and Truck Unloading | Maintaining unloading valves, Railcar drip-less connectors, and procedures |
| 009-0V and 009-0Q - Acrylonitrile Storage Tanks | Floating Roof |
| Pressure Vessels (BD Spheres)<br>(09-25050, 09-25074, 09-25077 & 09-25083) | Empty via vacuum |

**[45CSR13, R13-2678, 5.1.2. State-Only Enforceable]**

4.1.5. The permitted facility shall comply with all applicable requirements of 40CFR63, Subpart JJJ - *National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins* for the Tank Farm emission points (listed in the Table below), with the exception of any more stringent limitations set forth in this permit.

| **Equipment ID** | **Emission Point ID** | **Equipment Description** | **Applicable Requirements** |
|---|---|---|---|
| | | | |
| -- | 009-0S-LDAR | Equipment located between the Barge Unloading Station and BD Spheres pressure vessels ID 09-25050, 09-25074, 09-25077, 09-25083, and Styrene storage tanks ID 09-25048, 09-25049, 09-25076, 09-25082 | 63.1313 - Emission Standards<br>63.1331 - Equipment leak provisions |

| Equipment ID | Emission Point ID | Equipment Description | Applicable Requirements |
|---|---|---|---|
| -- | 009-0Y-LDAR | Equipment located between the Railcar and Truck Unloading Stations and Acrylonitrile storage tanks ID 09-25078 and 09-25075, Methyl Methacrylate storage tank ID 09-25009, BD Spheres pressure vessels ID 09-25050, 09-25074, 09-25077, 09-25083, and Styrene storage tanks ID 09-25048, 09-25049, 09-25076, 09-25082 | 63.1313 - Emission Standards<br>63.1331 - Equipment leak provisions |
| ***Storage Tanks - Group 1*** | | | |
| 09-25078 | 009-0V | Acrylonitrile Storage Tank, north | 63.1313 - Emission Standards<br>63.1314 - Storage vessel provisions |
| 09-25075 | 009-0Q | Acrylonitrile Storage Tank, south | |
| ***Storage Tanks - Group 2*** | | | |
| 09-25009 | 009-08 | Methyl Methacrylate Tank | 63.1313 - Emission Standards<br>63.1314 - Storage vessel provisions |

**[45CSR13, R13-1886, 4.1.11; 45CSR34 and 40CFR63, Subpart JJJ]**

4.1.6. The permitted facility shall comply with all applicable requirements of 40CFR63, Subpart JJJ - *National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins* for the Tank Farm maintenance wastewater: §63.1330(c) - Wastewater provisions, - with the exception of any more stringent limitations set forth in this permit.
**[45CSR13, R13-1886, 4.1.11; 45CSR34 and 40CFR63, Subpart JJJ, §63.1330(a)]**

4.1.7. The permittee shall implement and maintain leak detection and repair (LDAR) programs for the reduction of fugitive VOC emissions in all manufacturing process units subject to 45CSR§21-40 producing a product or products intermediate or final, in excess of 1,000 megagrams (1,100 tons) per year in accordance with the applicable methods and criteria of Subpart JJJ as the approved alternative LDAR procedure. This requirement shall apply to all units subject to 45CSR21 and identified in Appendix 2 of this permit irrespective of whether or not such units produce as intermediates or final products, substances on the lists contained in 40CFR60, 40CFR61, or 40CFR63.
*For sources subject to Part 63 Subpart JJJ listed in requirement 4.1.5, compliance with this requirement will be demonstrated if compliance with 40 CFR 63, Subpart JJJ §63.1331 Equipment leak provisions (Requirement 4.1.5) is demonstrated.*
**[45CSR13, R13-2678, 4.2.1]**

4.1.8. The permittee shall implement and maintain a LDAR program for the applicable sources and emission points identified in Appendix 2 of this permit in order to reduce the emissions of TAP in accordance with the requirements of 40CFR63, Subpart H - National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks. Compliance with 40CFR63, Subpart H shall be considered demonstration of compliance with the provisions of 45CSR§27-4 - Fugitive Emissions of Toxic Air Pollutants.
**[45CSR§27-4 and 45CSR13, R13-2678, 5.2.1. State-Only Enforceable]**

4.1.9. The permittee shall to the extent practicable, install, maintain, and operate all pollution control equipment listed in Appendix 2 and associated monitoring equipment in a manner consistent with the safety and good air pollution control practices for minimizing emissions or comply with 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 Director.
**[45CSR13, R13-2678, 4.1.3 and 5.1.4]**

4.1.10. For all periods in which control equipment or measures listed in Requirement 4.1.4. are inoperable or malfunctioning, the Company shall not operate the related production equipment unless the Company is granted a variance pursuant to 45CSR§27-12.1.
**[45CSR§27-12.1; State Enforceable Only]**

4.1.11. The Leak Detection and Repair (LDAR) program to control volatile organic compounds for tanks shall, at a minimum, comply with the provisions of 45CSR21 Section 37 as they may be amended. The permittee may also comply via a more stringent LDAR program (i.e. 40CFR63 Subpart H as may be amended). Compliance with this requirement will be demonstrated if compliance with the Part 63 Subpart JJJ §63.1331 - Equipment leak provisions (Requirement 4.1.5) is demonstrated.
**[45CSR§21-37; State Enforceable Only]**

4.1.12. Variance. -- If the provisions of 45CSR21 cannot be satisfied due to repairs made as the result of routine maintenance or in response to the unavoidable malfunction of equipment, the Director may permit the owner or operator of a source subject to 45CSR21 to continue to operate said source for periods not to exceed 10 days upon specific application to the Director. Such application shall be made prior to the making of repairs and, in the case of equipment malfunction, within 24 hours of the equipment malfunction. Where repairs will take in excess of 10 days to complete, additional time periods may be granted by the Director. 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. During such time periods**,** the owner or operator shall take all reasonable and practicable steps to minimize VOC emissions.
**[45CSR§21-9.3]**

4.1.13. 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 45CSR7, Table 45-7B (in-stack concentration of 35 mg /dry $m^3$ at standard conditions).
**[45CSR§7-4.2][Sulfuric Acid Storage Tanks 009-15 and 009-16]**

4.1.14. The following sections of 40 CFR 63, Subpart EEEE *National Emission Standards for Hazardous Air Pollutant Emissions: Organic Liquids Distribution (Non-Gasoline)* are applicable to (i) the Styrene Loading Station (Emission Point ID 009-0R) and the equipment leak components located between the Styrene loading Station and the styrene transfer line (high line), and (ii) the Railcar and Truck Unloading Stations (Emission Point ID 009-0Y):
§63.2330 What is the purpose of this Subpart?
§63.2334(a) Am I subject to this Subpart?
§63.2338 What parts of my plant does this subpart cover?
§63.2342(b)(1) and (d) When do I have to comply with this subpart?
§63.2343 What are my requirements for emission sources not requiring control?
§63.2346(d) and (i) What emission limitations, operating limits, and work practice standards must I meet?
§63.2350 What are my general requirements for complying with this subpart?
§63.2378(a) and (b) How do I demonstrate continuous compliance with the emission limitations, operating limits, and work practice standards?

§63.2382(a) What notifications must I submit and when and what information should be submitted?

§63.2398 What parts of the General Provisions apply to me?
§63.2406 What definitions apply to this subpart?

**[45CSR34 and 40CFR63, Subpart EEEE]**

4.1.15. The permitted sources identified in Appendix 2 of this permit and recognized as being subject to 45CSR21 shall comply with all applicable requirements of 45CSR21 – "Regulation to Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds" provided, however, that compliance with any more stringent requirements under the affected 45CSR13 permit identified in Appendix 2 of this permit, are also demonstrated. The applicable requirements set forth by 45CSR21 shall include, but not be limited to, the following:

a. The permittee shall maintain the aggregated hourly and annual VOC control efficiency of 90% or greater, on a site-wide basis, for all existing sources listed or required to be listed as part of the original facility-wide Reasonably Available Control Measures (RACM) plan, as identified in Appendix 2 of this permit.

b. On or after May 01, 1996, construction or modification of any emission source resulting in a maximum theoretical emissions (MTE) of VOCs equaling or exceeding six (6) pounds per hour and not listed or required to be listed in the facility-wide RACM plan shall require the prior approval by the Director of an emission control plan that meets the definition of reasonable available control technology (RACT) on a case-by-case basis for both fugitive and non-fugitive VOC emissions from such source. All sources constructed or modified on or after May 01, 1996 shall be subject to the following:

(1) The RACT control plan(s) shall be embodied in a permit in accordance to 45CSR13.

(2) The MTE and associated emission reductions of the constructed or modified source will not be calculated into the site-wide aggregate hourly and annual emissions reduction requirements set forth in Section 4.1.15.a of this permit.

c. If a modification to an existing source with current MTE below the threshold of six (6) pounds per hour of VOCs causes an increase in the MTE that results in the source exceeding the six (6) pounds per hour threshold for the first time, the source shall be subject to RACT in accordance to Section 4.1.15.b of this permit.

d. Physical changes to or changes in the method of operation of an existing emission source listed or required to be listed as part of the facility-wide RACM plan, that results in an increase in VOC emissions of any amount, shall require the prior approval by the Director of an emission control plan that meets the definition of RACT on a case-by-case basis for both fugitive and non-fugitive VOC emissions from the source. All sources modified on or after May 01, 1996 shall be subject to the following:

(1) The RACT control plan(s) shall be embodied in a permit in accordance to 45CSR13.

(2) The facility-wide RACM plan shall be modified to include the RACT analysis conducted on the modified source(s).

(3) The MTE and associated emission reductions of the modified source shall be recalculated as part of the site-wide aggregate hourly and annual emissions reduction requirements to demonstrate compliance with the minimum 90% reduction rate as set forth in Section 4.1.15.a of this permit.

e. In the event the facility-wide RACM plan is modified to delete an existing emission source, and any associated pollution control equipment, due to the source being permanently removed from service, or reassigned to service not subject to the requirements of 45CSR§21-40, the MTE shall be recalculated to demonstrate that the 90% facility-wide VOC reduction requirement set forth in Section 4.1.15.a of this permit is still being met. In the event such a modification results in the site-wide aggregate hourly and annual emissions reduction being recalculated to a rate less than 90%, the RACM plan shall be revised to include all new and/or modified sources and their associated control technologies constructed on or after May 01, 1996, in order to meet the requirements set forth in Section 4.1.15.a of

this permit.

f. In the event a source and associated emission point identified in Appendix 2 of this permit is subject to the New Source Performance Standards (NSPS) of 40CFR60, the National Emission Standards for Hazardous Air Pollutants (NESHAP) of 40CFR61, or the Maximum Achievable Control Technology (MACT) standards of 40CFR63, then compliance with such requirements as defined in the affected 45CSR13 permit shall demonstrate compliance with the RACT requirements set forth in this permit.

**[45CSR21; 45CSR13, R13-2678, 4.1.2 (a), (b), (c), (d), (e) and (f)]**

4.1.16. In the event a source and associated emission point identified in Appendix 2 of this permit are subject to the MACT standards of 40CFR63, then compliance with the applicable MACT requirements identified in the affected 45CSR13 permit shall demonstrate compliance with the BAT requirements set forth in Section 4.1.4 of this permit.
**[45CSR13, R13-2678, 5.1.3]**

4.1.17. Unless granted a variance pursuant to 45CSR21, Section 9.3, or as approved by the Director as part of a required Start-up, Shutdown, and Malfunction (SSM) Plan mandated under 40CFR§63.6(e) or another applicable Section of 40CFR63, the owner or operator of the facility shall operate all emission control equipment listed in Appendix 2 of this permit as part of the facility-wide control efficiency plan at all times the facilities are in operation or VOC emissions are occurring from these sources or activities. In the event of a malfunction, and a variance has not been granted, the production unit shall be shutdown or the activity discontinued as expeditiously as possible. The permittee shall comply with 45CSR21, Section 9.3 with respect to all periods of non-compliance with the emission limitations set forth in the affected 45CSR13 permits and the emissions reduction requests set forth in the facility-wide control efficiency plan resulting from unavoidable malfunctions of equipment.
**[45CSR13, R13-2678, 4.4.4]**

## 4.2. Monitoring Requirements

4.2.1. For the purpose of determining compliance with Section 4.1.5 of this permit, the permittee shall conduct monitoring in accordance with the requirements set forth in 40CFR63, Subpart JJJ, including the equipment leak provisions under 40CFR§63.1331 for all equipment in organic HAP service in the TPPU (Tank Farm Area only).
**[45CSR13, R13-1886, 4.2.1 and 45CSR§30-5.1.c]**

4.2.2. For the purpose of determining compliance with Section 4.1.11 of this permit (which applies to all equipment in VOC service in the Tank Farm that is not subject to Section 4.1.5 of this permit), the permittee shall conduct monitoring in accordance with the requirements set forth in 45CSR**§**21-37. In lieu of these requirements, the permittee may instead comply with a more stringent LDAR program, such as 40CFR63, Subpart H, as may be amended.
**[45CSR§30-5.1.c]**

4.2.3. In the event a source and associated emission point identified in Appendix 2 of this permit are subject to the MACT standards of 40CFR63, then compliance with any applicable LDAR program set forth by the MACT and identified in the affected 45CSR13 permit shall demonstrate compliance with the monitoring requirements set forth in this permit.
**[45CSR13, R13-2678, 5.2.2]**

## 4.3. Testing Requirements

4.3.1. As set forth under 40 CFR Part 60, Appendix A, the following test methods shall be employed for any performance stack testing required by the Director:

| | |
|---|---|
| Acrylonitrile | Method 18 |
| Methyl Methacrylate | Method 18 |
| Styrene | Method 18 |
| Total VOC | Method 25 or 25A |
| $NO_x$ | Method 7, 7B, or 7E |
| Particulate | Method 5 |

**[45CSR13, R13-1886, 4.3.1. and R13-2678, 4.3.1]**

4.3.2. The pertinent sections of 40 CFR 63, Subpart JJJ *National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins* applicable to the Group 1 Storage Tanks, listed in the Requirement 4.1.5, are:
63.1333 - Additional requirements for performance testing
**[45CSR34 and 40CFR63, Subpart JJJ]**

4.3.3. In the event a source and associated emission point identified in Appendix 2 of this permit are subject to the MACT standards of 40CFR63, then compliance with the applicable LDAR testing requirements set forth by the MACT and identified in the affected 45CSR13 permit shall demonstrate compliance with the LDAR testing requirements set forth in this permit.
**[45CSR13, R13-2678, 5.3.1]**

## 4.4. Recordkeeping Requirements

4.4.1. In order to demonstrate compliance with the emission limits set forth in Requirements 4.1.2 and 4.1.3 the permittee shall perform emission calculations within 30 days of the end of each calendar quarter. Compliance with the hourly and annual emission limits shall be determined according to section 3.2.2.
**[45CSR§30-5.1.c.]**

4.4.2. For the purpose of demonstrating compliance with Section 4.1.5 and 4.1.6 of this permit, the permittee shall maintain records in accordance to the requirements set forth in 40CFR63, Subpart JJJ *National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins* applicable to the facility: 63.1335(a), 63.1335(b), 63.1335(d), 63.1335(f), 63.1335(g), 63.1335(h) - General recordkeeping and reporting requirements.
**[45CSR13, R13-1886, 4.4.9; 45CSR34 and 40CFR63 Subpart JJJ]**

4.4.3. To demonstrate compliance with Requirement 4.1.13 the permittee shall keep engineering calculation of the sulfuric acid concentration at maximum tank capacity on site.
**[45CSR§30-5.1.c]**

4.4.4. The following recordkeeping sections of 40 CFR 63, Subpart EEEE *National Emission Standards for Hazardous Air Pollutant Emissions: Organic Liquids Distribution (Non-Gasoline)* are applicable to the Styrene Loading Station (Emission Point ID 009-0R):

63.2390(a), (c), (d) What records must I keep?
63.2394 In what form and how long must I keep my records?
**[45CSR34 and 40CFR63, Subpart EEEE]**

4.4.5. For the purpose of determining compliance with Section 4.1.11 of this permit (which applies to all

equipment in VOC service in the Tank Farm that is not subject to Section 4.1.5 of this permit), the permittee shall maintain records in accordance with the requirements set forth in 45CSR**§**21-37. In lieu of these requirements, the permittee may instead comply with a more stringent LDAR program, such as 40CFR63, Subpart H, as may be amended.
**[45CSR§30-5.1.c]**

4.4.6. The permittee shall maintain records of the results of all monitoring and inspections, emission control measures applied and the nature, timing, and results of repair efforts conducted in accordance to 45CSR§27-10, and set forth in the affected 45CSR13 permits as identified in Appendix 2 of this permit.
**[45CSR13, R13-2678, 5.4.4]**

## 4.5. Reporting Requirements

4.5.1. With the respect to LDAR requirements applicable to a process unit as a result of 45CSR§21-40.3.a.2, starting in 1998 the LDAR Program Reports submitted for semi-annual periods are due within 60 days after the period has ended. Compliance with this Requirement may be demonstrated by complying with the Requirement 4.5.2.
**[45CSR§21-40.3.a.2. State-Enforceable only]**

4.5.2. For the purpose of demonstrating compliance with Section 4.1.5 and 4.1.6 of this permit, the permittee shall assemble and submit all reports in accordance to the requirements set forth in 40CFR63, Subpart JJJ *National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins* applicable to the facility - §63.1335(e), §63.1335(f), §63.1335(g) - General recordkeeping and reporting requirements, and Section 3.5.1-3.5.3 of this permit.
**[45CSR13, R13-1886, 4.5.1; 45CSR34 and 40CFR63, Subpart JJJ]**

4.5.3. Reports of excess emissions. -- Except as provided in 45CSR§21-9.3, the owner or operator of any facility containing sources subject to 45CSR§21-5 shall, for each occurrence of excess emissions expected to last more than 7 days, within 1 business day of becoming aware of such occurrence, supply the Director by letter with the following information:

a. The name and location of the facility;
b. The subject sources that caused the excess emissions;
c. The time and date of first observation of the excess emissions; and
d. The cause and expected duration of the excess emissions.
e. For sources subject to numerical emission limitations, the estimated rate of emissions (expressed in the units of the applicable emission limitation) and the operating data and calculations used in determining the magnitude of the excess emissions; and
f. The proposed corrective actions and schedule to correct the conditions causing the excess emissions.

**[45CSR§21-5.2]**

4.5.4. Accidental and other infrequent discharges which cause or contribute to objectionable odors will be considered on an individual basis and shall be reported by the person responsible therefore to the Director in the manner to be prescribed by the Director.
**[45CSR13, R13-2084, B.5; 45CSR§4-4.1; State-enforceable only] [Methyl Methacrylate tank 09-25009, Butyl Acrylate tanks ID 09-25010 and 09-25011]**

4.5.5. The following reporting sections of 40 CFR 63, Subpart EEEE *National Emission Standards for Hazardous Air Pollutant Emissions: Organic Liquids Distribution (Non-Gasoline)* are applicable to the Styrene Loading Station (Emission Point ID 009-0R):
63.2386 What reports must I submit and when and what information is to be submitted in each?
**[45CSR34 and 40CFR63, Subpart EEEE]**

4.5.6. For the purpose of determining compliance with Section 4.1.11 of this permit (which applies to all equipment in VOC service in the Tank Farm that is not subject to Section 4.1.5 of this permit), the permittee shall assemble and submit all reports in accordance with the requirements set forth in 45CSR**§**21-37 and Sections 3.5.1-3.5.3 of this permit. In lieu of these requirements, the permittee may instead comply with a more stringent LDAR program, such as 40CFR63, Subpart H, as may be amended.
**[45CSR§30-5.1.c]**

4.5.7. The permittee shall submit to the DAQ a plan for complete, facility-wide implementation of RACT requirements within one hundred eighty (180) days of notification by the Director that a violation of the National Ambient Air Quality Standards (NAAQS) for ozone (that were in effect on or before May 01, 1996) has occurred. Such plan shall included those sources listed in Appendix 2 of this permit as part of the site-wide control efficiency requirement and may contain an update of existing RACT analyses. Full implementation of such plan shall be completed within two (2) years of approval of the RACT plan by the Director.
**[45CSR13, R13-2678, 4.5.1]**

4.5.8. For the purpose of demonstrating compliance with the requirements set forth in 45CSR§27-10.4, the permittee shall file a written report with the Director documenting the emissions to the air of any toxic air pollutant resulting from an abnormal release or spill in excess of the following thresholds:

a. Ethylene oxide - one (1) pound

b. Vinyl chloride - one (1) pound

c. Acrylonitrile - ten (10) pounds

d. Butadiene - ten (10) pounds

e. All other toxic air pollutants - fifty (50) pounds

**[45CSR§27-10 and 45CSR13, R13-2678, 5.5.1, *State-Only Enforceable*]**

## 4.6. Compliance Plan

4.6.1. None.

## 5.0 Boiler House Requirements [Emission Point ID(s): 007-03, 04 & 06]

### 5.1. Limitations and Standards

5.1.1. Emissions from the natural gas fired 146 mmBtu/hr Rentech Boiler #5 (Emission Point ID 007-06) shall not exceed the following:

| Pollutant | lb/hr | tpy |
|---|---|---|
| $NO_x$ | 5.3 | 23.0 |
| CO | 16.1 | 70.3 |
| $PM_{10}$ | 1.1 | 5.0 |
| VOC | 0.8 | 3.6 |
| $SO_2$ | 0.1 | 0.4 |

Compliance with the $PM_{10}$ and $SO_2$ hourly emission limits listed in the Table above will demonstrate compliance with the less stringent 45CSR2 and 45CSR10 emission limits.
**[45CSR13, R13-2572, 4.1.1; 45CSR§2-4.1.b, 45CSR§10-3.1.e]**

5.1.2. Maximum natural gas consumption by the Boiler #5 (Emission Point ID 007-06) shall not exceed 139,000 scf per hour nor 1,218 mmscf per year.
**[45CSR13, R13-2572, 4.1.2]**

5.1.3. Except during startup, shutdown and malfunctions, opacity from Boilers #3, #4 and #5 shall not exceed 10 percent based on a six minute block average.
**[45CSR13, R13-2572, 4.1.3, 4.1.5 and R13-0009, 4.1.5; 45CSR§2-3.1]**

5.1.4. Emissions from the 72 mmBtu/hr Boiler #3 (Emission Point ID 007-03), while burning an alternative fuel (No. 2 fuel oil), shall not exceed the following:

| Pollutant | lb/hr | tpy |
|---|---|---|
| $NO_x$ | 10.7 | 46.7 |
| CO | 2.7 | 11.7 |
| PM10 | 1.1 | 4.7 |
| SO2 | 37.9 | 165.8 |
| VOC | 0.2 | 0.5 |

Compliance with the PM10 and $SO_2$ hourly emission limits listed in the Table above will demonstrate compliance with the less stringent 45CSR2 and 45CSR10 emission limits.
**[45CSR13, R13-0009, 4.1.1; 45CSR§2-4.1.b, 45CSR§10- 3.1.e]**

5.1.5. Emissions from the 132 mmBtu/hr Boiler #4 (Emission Point ID 007-04), while burning an alternative fuel (No. 2 fuel oil), shall not exceed the following:

| Pollutant | lb/hr | tpy |
|---|---|---|
| NOx | 23.5 | 102.9 |
| CO | 4.9 | 21.5 |
| PM10 | 2.0 | 8.6 |
| SO2 | 69.5 | 304.2 |
| VOC | 0.2 | 0.9 |

Compliance with the PM10 and $SO_2$ hourly emission limits listed in the Table above will demonstrate compliance with the less stringent 45CSR2 and 45CSR10 emission limits.
**[45CSR13, R13-0009, 4.1.2; 45CSR§2-4.1.b, 45CSR§10- 3.1.e]**

5.1.6. Maximum No. 2 fuel oil consumption by the Boiler #3 (Emission Point ID 007-03) shall not exceed 533 gal/hr and 4,669,080 gal per year. Compliance with the alternative fuel usage limit shall be determined using a rolling yearly total.
**[45CSR13, R13-0009, 4.1.3]**

5.1.7. Maximum No. 2 fuel oil consumption by the Boiler #4 (Emission Point ID 007-04) shall not exceed 978 gal/hr and 8,567,280 gal per year. Compliance with the alternative fuel usage limit shall be determined using a rolling yearly total.
**[45CSR13, R13-0009, 4.1.4]**

5.1.8. The pertinent sections of 45CSR2 applicable to this facility include:

§45-2-4.1 Weight Emission Standards
No person shall cause, suffer, allow, or permit the discharge of particulate matter into the open air from all fuel burning units located at one plant, measured in terms of pounds per hour in excess of the amount determined as follows:

§45-2-4.1(b)
For Type 'b' fuel burning units, the product of 0.09 and the total design heat inputs for such units in million B.T.U.'s per hour, provided however that no more than six hundred (600) pounds per hour of particulate matter shall be discharged into the open air from all such units; and

§45-2-8.1. Testing

§45-2-8.1.b.
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 §45-2-4. 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.

§45-2-8.1.c .
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 §45-2-4.1.

§45-2-8.3. Recordkeeping and Reporting

§45-2-8.3.c
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.

§45-2-9.1 Start-ups, Shutdowns and Malfunctions (visible emissions)
The visible emission standards set forth in §45-2-3 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.

§45-2-9.3 Start-ups, Shutdowns and Malfunctions (reporting)
The owner or operator of a fuel burning unit(s) subject to 45CSR2 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 45CSR§2-3 and 45CSR§2-4) as provided in one of the following subdivisions:

§45-2-9.3.a.
Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless otherwise required by the Director:

§45-2- 9.3.a.1.
The excess opacity period does not exceed thirty (30) minutes within any 24-hour period; and

§45-2-9.3.a.2.
Excess opacity does not exceed 40%.

§45-2- 9.3.b.
The owner or operator shall report to the Director any malfunction resulting in excess particulate matter or excess opacity, not meeting the criteria set forth in subdivision 9.3.a, by telephone, telefax, or e-mail by the end of the next business day after becoming aware of such condition. The owner or operator shall file a certified written report concerning the malfunction with the Director within thirty (30) days providing the following information:

§45-2- 9.3.b.1.
A detailed explanation of the factors involved or causes of the malfunction;

§45-2-9.3.b.2.
The date and time of duration (with starting and ending times) of the period of excess emissions;

§45-2-9.3.b.3
An estimate of the mass of excess emissions discharged during the malfunction period;

§45-2-9.3.b.4
The maximum opacity measured or observed during the malfunction;
§45-2-9.3.b.5.
Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and

§45-2-9.3.b.6.
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.

Records shall be deemed to be "maintained on site" if they are kept in an electronic format off-site, but are accessible from the site.

**[45CSR13, R13-2572, 4.1.5 and R13-0009, 4.1.5 and 45CSR2]**

5.1.9. The pertinent sections of 45CSR10 applicable to this facility are:

§45-10-3.1. Sulfur Dioxide Weight Emission Standards for Fuel Burning Units
No person shall cause, suffer, allow, or permit the discharge of sulfur dioxide into the open air from all stacks located at one plant, measured in terms of pounds per hour, in excess of the amount determined as follows:

§45-10-3.1.e.
For Type 'b' and Type 'c' fuel burning units, the product of 3.1 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour.

**[45CSR13, R13-2572, 4.1.6; R13-0009, 4.1.6 and 45CSR10]**

5.1.10. The pertinent sections of 40 CFR 60, Subpart Db, applicable to this facility (Boiler #5, Emission Point ID 007-06) are:

§60.40b(a)
The affected facility to which Subpart Db applies is each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 MW (100 million Btu/hour).

§60.44b(a)
Except as provided under §60.44b(k), on and after the date on which the initial performance test is completed or is required to be completed under §60.8 of 40 CFR 60, whichever date comes first, no owner or operator of an affected facility that is subject to the provisions of §60.44b and that combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides (expressed as $NO_2$) in excess of the following emission limits:

(1) Natural gas and distillate oil:

(ii) High heat release rate, 0.2 lbs $NO_x$ per million Btu heat input

§60.44b(h)
For purposes of paragraph §60.44b(i) (Requirement 5.4.1), the nitrogen oxide standards under §60.44b

apply at all times including periods of startup, shutdown, or malfunction.

**[45CSR13, R13-2572, 4.1.8; 45CSR16 and 40CFR60, Subpart Db]**

5.1.11. a. The boilers shall comply with all applicable requirements for existing affected sources pursuant to 40 C.F.R. 63, Subpart DDDDD, "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters" no later than the existing source effective date. The permittee is required to submit an Initial Notification no later than the existing source compliance date of March 21, 2014, or as amended by US EPA.
**[40 C.F.R.63, Subpart DDDDD, 45CSR34] [Boilers # 3, 4 & 5]**

b. If required to submit a Notification of Compliance Status (NOCS) pursuant to 40 C.F.R. 63, Subpart DDDDD, the permittee shall also submit a complete application for significant modification to the Title V permit to incorporate the specific requirements of the rule no later than the maximum time allowed for the NOCS submittal in 40 C.F.R. §63.7545(e).

If requested, this Title V permitting deadline may be changed upon written approval by the Director. The permittee shall request the change in writing at least 30 days prior to the application due date.
**[40 C.F.R.63, Subpart DDDDD, 45CSR34; 45CSR§30-6.5.b.] [Boilers # 3, 4 & 5]**

5.1.12. PM emissions from Boilers #3 and #4 (Emission Point ID 007-03 and 007-04), while burning natural gas, shall not exceed the following:

| Emission Point | PM, lb/hr |
|---|---|
| 007-03 | 6.48 |
| 007-04 | 11.88 |

**[45CSR§2-4.1.b]**

5.1.13. $SO_2$ emissions from Boilers #3 and #4 (Emission Point ID 007-03 and 007-04), while burning natural gas, shall not exceed the following:

| Emission Point | $SO_2$, lb/hr |
|---|---|
| 007-03 | 223.2 |
| 007-04 | 409.2 |

**[45CSR§10-3.1.e]**

5.1.14. **Operation and Maintenance of Boiler #5.** The permittee shall, to the extent practicable, install, maintain, and operate Boiler #5 in a manner consistent with safety and good air pollution control practices for minimizing emissions.
**[45CSR§30-5.1.c.]**

## 5.2. Monitoring Requirements

5.2.1. The permittee shall install, calibrate, maintain, and operate, in accordance with 40 C.F.R. §60.13, a continuous monitoring system for measuring nitrogen oxides emissions discharged to the atmosphere from the Boiler #5 (Emission Point ID 007-06) and record the output of the system. Records shall be maintained

by the permittee for a period of 5 years following the date of such record. **[45CSR13, R13-2572, 4.1.4]**

5.2.2. For the purpose of this Requirement "chapter" means "Title 40: Protection of Environment".

The pertinent sections of 40 CFR 60, Subpart Db, applicable to this facility (Boiler #5, Emission Point ID 007-06) are:

§60.48b(b)

Except as provided under paragraphs (g), (h), and (i) of §60.48b, the owner or operator of an affected facility subject to the nitrogen oxides standards under §60.44b shall comply with either paragraphs (b)(1) or (b)(2) of §60.48b.

§60.48b(b)(1)

Install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring nitrogen oxides emissions discharged to the atmosphere; or

§60.48b(b)(2)

If the owner or operator has installed a nitrogen oxides emission rate continuous emission monitoring system (CEMS) to meet the requirements of part 75 of this *chapter* and is continuing to meet the ongoing requirements of part 75 of this *chapter*, that CEMS may be used to meet the requirements of §60.48b, except that the owner or operator shall also meet the requirements of §60.49b. Data reported to meet the requirements of §60.49b shall not include data substituted using the missing data procedures in subpart D of part 75 of this *chapter*, nor shall the data have been bias adjusted according to the procedures of part 75 of this *chapter*.

§60.48b(c)

The continuous monitoring systems required under paragraph (b) of §60.48b shall be operated and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

§60.48b(e)

The procedures under §60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems.

§60.48b(e)(2)

For affected facilities combusting coal, oil, or natural gas, the span value for nitrogen oxides is determined as follows:

| Fuel | Span Values |
|---|---|
| Natural gas | 500 ppm |

§60.48b(e)(3)

All span values computed under paragraph (e)(2) of §60.48b for combusting mixtures of regulated fuels are rounded to the nearest 500 ppm.

§60.48b(f)

When nitrogen oxides emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7, Method 7a, 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 30 successive steam generating unit operating days.

§60.48b(g)

The owner or operator of an affected facility that has a heat input capacity of 73 MW (250 million Btu/hour) or less, and which has an annual capacity factor for residual oil having a nitrogen content of 0.30 weight percent or less, natural gas, distillate oil, or any mixture of these fuels, greater than 10 percent (0.10) shall:

§60.48b(g)(1)

Comply with the provisions of paragraphs (b), (c), (d), (e)(2), (e)(3), and (f) of §60.48b, or

§60.48b(g)(2)

Monitor steam generating unit operating conditions and predict nitrogen oxides emission rates as specified in a plan submitted pursuant to §60.49b(c).

**[45CSR13, R13-2572, 4.1.8; 45CSR16 and 40CFR60, Subpart Db]**

5.2.3. In order to determine compliance with the opacity limit set forth in Section 5.1.3 for Boilers #3 and #4, while burning fuel oil, the permittee shall either perform monthly testing in accordance with 40 CFR Part 60, Appendix A, Method 22, or install a certified continuous opacity monitoring system. If any emissions are observed during Method 22 testing, the permittee shall immediately investigate the cause(s), take corrective action, and repeat the Method 22 test. If emissions are observed during the repeat test, the permittee shall perform testing in accordance with 40 CFR Part 60, Appendix A, Method 9 within 3 days. Records of Method 22 testing and any necessary Method 9 testing shall be retained on site, or accessible electronically from the site, by the permittee for at least five (5) years. Upon request the records shall be certified and made available to the Director or his/her duly authorized representative.
**[45CSR13, R13-0009, 4.2.1]**

5.2.4. If requested by the Secretary, in order to determine compliance with the opacity limit for Boiler #5 given in section 5.1.3. the permittee shall either perform testing in accordance with 40 CFR Part 60, Appendix A, Method 22, or install a certified continuous opacity monitoring system. If any emissions are observed during Method 22 testing, the permittee shall immediately investigate the cause(s), take corrective action, and repeat the Method 22 test. If emissions are observed during the repeat test, the permittee shall perform testing in accordance with 40 CFR Part 60, Appendix A, Method 9 within 3 days. **[45CSR13, R13-2572, 4.3.1]**

## 5.3. Testing Requirements

5.3.1. The pertinent sections of 40 CFR 60, Subpart Db, applicable to this facility (Boiler #5, Emission Point ID 007-06) are:

§60.46b(c)

Compliance with the nitrogen oxides emission standards under §60.44b shall be determined through performance testing under paragraph (e) or (f), or under paragraphs (g) and (h) of §60.46b, as applicable.

§60.46b(e)

To determine compliance with the emission limits for nitrogen oxides required under §60.44b, the owner or operator of an affected facility shall conduct the performance test as required under §60.8 using the continuous system for monitoring nitrogen oxides under §60.48(b).

§60.46b(e)(4)
Following the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that has a heat input capacity of 73 MW (250 MMBtu/hr) or less and that combusts natural gas, distillate oil, gasified coal, or residual oil having a nitrogen content of 0.30 weight percent or less shall upon request determine compliance with the $NO_X$ standards in §60.44b through the use of a 30-day performance test. During periods when performance tests are not requested, $NO_X$ emissions data collected pursuant to §60.48b(g)(1) or §60.48b(g)(2) are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the $NO_X$ emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly $NO_X$ emission data for the preceding 30 steam generating unit operating days.

**[45CSR13, R13-2572, 4.1.8, 45CSR16 and 40CFR60, Subpart Db]**

## 5.4. Recordkeeping Requirements

5.4.1. The pertinent sections of 40 CFR 60, Subpart Db, applicable to this facility (Boiler #5, Emission Point ID 007-06) are:

§60.44b(i)
Except as provided under §60.44b(j), compliance with the emission limits under Requirement 5.1.10 (§60.44b) is determined on a 30-day rolling average basis.

§60.48b(d)
The 1-hour average nitrogen oxides emission rates measured by the continuous nitrogen oxides monitor required by Requirement 5.2.2 (§60.48b(b)) and required under §60.13(h) shall be expressed in ng/J or lb/million Btu heat input and shall be used to calculate the average emission rates under Requirement 5.1.10 (§60.44b). The 1-hour averages shall be calculated using the data points required under §60.13(b). At least 2 data points must be used to calculate each 1-hour average.

§60.49b(d)
The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, distillate oil,

residual oil, natural gas, wood, and municipal-type solid waste for each calendar quarter. 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.

§60.49b(g)
Except as provided under paragraph (p) of §60.49b, the owner or operator of an affected facility subject to the nitrogen oxides standards under §60.44b shall maintain records of the following information for each steam generating unit operating day:

§60.49b(g)(1)
Calendar date.

§60.49b(g)(2)
The average hourly nitrogen oxides emission rates (expressed as $NO_2$) (ng/J or lb/million Btu heat input) measured or predicted.

§60.49b(g)(3)
The 30-day average nitrogen oxides emission rates (ng/J or lb/million Btu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days.

§60.49b(g)(4)
Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the nitrogen oxides emissions standards under §60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken.

§60.49b(g)(5)
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.

§60.49b(g)(6)
Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.

§60.49b(g)(7)
Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.

§60.49b(g)(8)
Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.

§60.49b(g)(9)
Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specification 2 or 3.

§60.49b(g)(10)
Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1.
**[45CSR13, R13-2572, 4.1.8, 45CSR16 and 40CFR60, Subpart Db]**

5.4.2. Compliance with the record keeping Requirement 5.4.1 (§60.49b(d)) shall demonstrate compliance with the maximum combustion limit for the Boiler #5 set forth in Requirement 5.1.2, provided that such records shall be retained on site, or accessible electronically at the site for at least five (5) years. Compliance with the hourly fuel usage limit shall be determined on a per month basis. Compliance with the annual fuel usage limit shall be determined using a rolling yearly total. A rolling yearly total shall mean the sum of the natural gas consumed for the previous twelve (12) consecutive months. Upon request the records shall be certified and made available to the Director or his/her duly authorized representative.

Compliance with the Requirement 5.1.2 and 5.1.14 will also demonstrate compliance with the Boiler #5 hourly and annual emission limits for $PM_{10}$, $SO_2$, CO and VOC set forth in Requirement 5.1.1.
**[45CSR13, R13-2572, 4.2.1 and 4.4.4, and 45CSR§30-5.1.c]**

5.4.3. Compliance with the Boiler #5 hourly emission limits for NOx set forth in Requirement 5.1.1 shall be determined on a 30-day rolling average basis as per Requirements 5.4.1. Compliance with the annual emission limits shall be determined on a 12-month rolling total basis. Compliance with the NOx emission limit for Boiler #5 set forth in Requirement 5.1.10 will be demonstrated if compliance with the NOx hourly emission limit for Boiler #5 set forth in Requirement 5.1.1 is demonstrated.
**[45CSR16, 45CSR§30-5.1.c, 40CFR60.49b(i), 40CFR60.49b(g)(3) and 40CFR60.49b(g)(10)]**

5.4.4. To demonstrate compliance with the maximum combustion limits for Boilers #3 and #4 set forth in Requirements 5.1.6 and 5.1.7 the owner or operator shall maintain records of the operating schedule and the quantity and quality of No. 2 fuel oil consumed in by each of the fuel burning units. Compliance with the hourly combustion limit shall be determined on a per month basis. Compliance with the maximum annual combustion limit shall be determined using a twelve (12) month rolling total. A twelve (12) month rolling total shall mean the sum of the No. 2 fuel oil consumed for the previous twelve (12) consecutive months. Such records shall be retained on site by the permittee for at least five (5) years.

Compliance with the maximum combustion limits will demonstrate compliance with the emission limits set forth in Requirements 5.1.4 and 5.1.5. Upon request the records shall be certified and made available to the Director or his/her duly authorized representative.
**[45CSR13, R13-0009, 4.4.4 and 45CSR§2-8.3.c]**

5.4.5. A record of each visible emission observation and opacity evaluation per Requirement 5.2.3 and 5.2.4 shall be maintained on site, or accessible electronically at the site for a period of no less than five (5) years and shall be made available to the Director or his/her duly authorized representative upon request. Said records shall include the date, time, name of emission unit, the applicable visible emission requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.
**[45CSR13, R13-0009, 4.4.5; 45CSR§30-5.1.c]**

5.4.6. **Record of Maintenance of Boiler #5.** For Boiler #5, the permittee shall maintain accurate records of all required equipment inspection and/or preventative maintenance procedures. Records shall be maintained on site, or be accessible electronically at the site, and shall be made available to the Director or his/her duly authorized representative upon request.
**[45CSR§30-5.1.c]**

## 5.5. Reporting Requirements

5.5.1. The pertinent sections of 40 CFR 60, Subpart Db, applicable to this facility (Boiler #5, Emission Point ID 007-06) are:

§60.49b(h)

The owner or operator of any affected facility in any category listed in paragraphs (h)(1) or (2) of *this section* is required to submit excess emission reports for any excess emissions which occurred during the reporting period.

§60.49b(h)(1)

Any affected facility subject to the opacity standards under §60.43b(e) or to the operating parameter monitoring requirements under §60.13(i)(1).

§60.49b(h)(2)

Any affected facility that is subject to the nitrogen oxides standard of §60.44b, and that

60.49b(h)(2)(i)

Combusts natural gas, distillate oil, or residual oil with a nitrogen content of 0.3 weight percent or less, or

§60.49b(h)(2)(ii)

Has a heat input capacity of 73 MW (250 million Btu/hour) or less and is required to monitor nitrogen oxides emissions on a continuous basis under §60.48b(g)(1) or steam generating unit operating conditions under §60.48b(g)(2).

§60.49b(h)(3)

For the purpose of §60.43b, excess emissions are defined as all 6-minute periods during which the average opacity exceeds the opacity standards under §60.43b(f).

§60.49b(h)(4)

For purposes of §60.48b(g)(1), excess emissions are defined as any calculated 30-day rolling average nitrogen oxides emission rate, as determined under §60.46b(e), which exceeds the applicable emission limits in §60.44b.

§60.49b(o)

All records required under §60.49b shall be maintained by the owner or operator of the affected facility for a period of 2 years following the date of such record.

§60.49b(v)

The owner or operator of an affected facility may submit electronic quarterly reports for $SO_2$ and/or $NO_X$ and/or opacity in lieu of submitting the written reports required under paragraphs (h) of §60.49b. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic

report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format.

§60.49b(w)

The reporting period for the reports required under this subpart is each 6 month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

**[45CSR13, R13-2572, 4.1.8, 45CSR16 and 40CFR60, Subpart Db]**

## 5.6. Compliance Plan

5.6.1. None

## 6.0 Wastewater Treatment Plant Requirements [Emission Point ID(s): 008-06]

### 6.1. Limitations and Standards

6.1.1. Reserved.

6.1.2. Reserved.

6.1.3. Reserved.

6.1.4. Maximum allowable emissions to the atmosphere from sources listed below shall not exceed the following annual limitations**:**

| **Emission Point** | **Acrylonitrile, TPY** |
|---|---|
| 008-06 – Wastewater Treatment Process | 15.5 |

**[45CSR13, R13-1886, 4.1.7 and R13-2678, 5.1.1]**

6.1.5. Maximum allowable 1,3-Butadiene emissions to the atmosphere from sources listed below shall not exceed the following annual limitations:

| **Emission Point** | **1,3-Butadiene, lb/yr** |
|---|---|
| 008-06 – Wastewater Treatment Process | 600 |

**[45CSR13, R13-1886, 4.1.7]**

### 6.2. Monitoring Requirements

6.2.1. None

### 6.3. Testing Requirements

6.3.1. None

### 6.4. Recordkeeping Requirements

6.4.1. Reserved

6.4.2. For the purpose of determining compliance with the permit limit set forth in Requirement 6.1.4, the permittee shall perform emission calculations within 30 days of the end of each calendar quarter. Compliance with the annual emission limit shall be determined using a rolling yearly total. Such records shall be retained on site, or accessible electronically at the site by the permittee. **[45CSR§30-5.1.c]**

6.4.3. For the purpose of determining compliance with the permit limit set forth in Requirements 6.1.5, the permittee shall perform emission calculations within 30 days of the end of each calendar quarter. Such records shall be retained on site, or accessible electronically at the site by the permittee.
**[45CSR§30-5.1.c. State-enforceable only.]**

## 6.5. Reporting Requirements

6.5.1 None.

## 6.6. Compliance Plan

6.6.1. None.

# 7.0 Latex Processing Area [Emission Point ID(s): LX1, LX 4-8, LX11, 13 & 14]

## 7.1. Limitations and Standards

7.1.1. Latex Building A & B Process Equipment and Recovery System

The Latex A & B Process Equipment and Recovery System has one Group 1 continuous process vent that must comply with 40 C.F.R. §63.1315.
**[45CSR34; 40 C.F.R. § 63.1315][LX1]**

7.1.1.1. In order to comply with 40 C.F.R §63.1315, the permittee shall reduce emissions of organic HAP from the Group 1 continuous process vent using one of the compliance options set forth in 40 C.F.R §63.113(a). The permittee currently uses a flare (Latex Area Flare) as the compliance option.
**[45CSR34; 40 C.F.R. §63.113(a)] [LX1]**

7.1.1.2. The permittee shall comply with 40 C.F.R. §63.11(b) for the Latex Area Flare as follows:

a. Owners or operators using flares to comply with the provisions of 40 C.F.R. 63 Subpart JJJ shall monitor these control devices to assure that they are operated and maintained in conformance with their designs.

b. Flares shall be steam-assisted, air-assisted, or non-assisted.

c. Flares shall be operated at all times when emissions may be vented to them.

d. Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. Test Method 22 in 40 C.F.R. 60 appendix A shall be used to determine the compliance of flares with the visible emission provisions of this part. The observation period is 2 hours and shall be used according to Method 22.

e. Flares shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

f. An owner/operator has the choice of adhering to the heat content specifications in paragraph (b)(6)(ii) of 40 C.F.R. § 63.11, and the maximum tip velocity specifications in paragraph (b)(7) or (b)(8) of 40 C.F.R. § 63.11, or adhering to the requirements in paragraph (b)(6)(i) of 40 C.F.R. § 63.11.

**[45CSR34, 40 C.F.R. § 63.11] [LX1]**

7.1.1.3. Emissions from the Latex Area flare (Control Device ID 30B-01002) shall not exceed the following:

| Pollutant | Lbs/Hr | Lbs/Yr |
|---|---|---|
| Styrene | 0.240 | 105 |
| Acrylonitrile | 1.000 | 200 |
| 1,3-Butadiene | 40.000 | 43,000 |
| Total VOC* | 50.000 | 63,000 |
| NOx | 5.000 | 6,000 |

* Includes Acrylonitrile, Butadiene and Styrene.
**[45CSR13, R13-1009, A.1.] [LX1]**

7.1.1.4. The Latex Area Flare unit shall be operated in such a manner that a minimum of 97% of all incoming volatile organic compounds (VOCs) will be destructed by the flare.
**[45CSR13, R13-1009, A.2.] [LX1]**
Note: Compliance with this requirement has been demonstrated through a performance test.

7.1.2. The permittee shall be limited to the regulated pollutants and associated emission rates from those sources and respective emission points identified in Table 7.1.2 of this permit.

**Table 7.1.2.**

| Emission Point | Source | | Pollutant | Emissions | |
|---|---|---|---|---|---|
| | ID | Description | | Hourly (PPH) | Annual (TPY) |
| LX5 | 001-02 | Latex Wash Tanks | 1,3-Butadiene | --- | 0.21 |
| LX13 | 001-0C | Latex Recovery Tank | 1,3-Butadiene | --- | 0.27 |
| LX7 | 001-03 | Latex Flare KO Tank | 1,3-Butadiene | --- | 0.09 |
| LX6 | 001-04 | Latex ER KO Tank | 1,3-Butadiene | --- | 0.02 |
| CGL(LX8) | 001-07 | Latex Coag Pits | 1,3-Butadiene | --- | 0.9* |

* State-Enforceable Only
**[45CSR13, R13-1886, 4.1.7.]**

7.1.3. Emissions from the Catalytic Thermal Oxidizer (CTO) [Control Device ID 30B-12130] and Latex Blend Tank 38 shall not exceed the following limits:

Table 7.1.3.

| Pollutant | Emission Point ID LX14 Vapor Collection and CTO | | Emission Point ID LX4 Latex Blend Tank 38 | | Total | |
|---|---|---|---|---|---|---|
| | PPH | TPY | PPH | TPY | PPH | TPY |
| $NO_X$ | 8.0 | 32.0 | --- | --- | 8.0 | 32.0 |
| CO | 2.0 | 9.0 | --- | --- | 2.0 | 9.0 |
| $SO_2$ | 0.5 | 1.0 | --- | --- | 0.5 | 1.0 |
| $PM_{10}$ | 1.0 | 2.0 | --- | --- | 1.0 | 2.0 |
| Total VOCs* | 9.1 | 2.4 | 0.9 | 2.1 | 9.9 | 4.4 |
| Acrylonitrile | 0.15 | 0.09 | 0.01 | 0.01 | 0.16 | 0.1 |
| 1,3-Butadiene | 6.42 | 1.65 | 0.29 | 0.71 | 6.7 | 2.4 |

*Includes 1,3-butadiene (TAP, HAP), acrylonitrile (TAP, HAP), 2-butene, 4-vinylcyclohexane, styrene (HAP), ethylbenzene (HAP), xylene (HAP), cumene (HAP), alpha-methyl styrene, and other nonHAP, nonTAP VOCs.
**[45CSR13, R13-2288, A.1.]**

7.1.4. The CTO shall be constructed, maintained, and operated so to maintain a minimum VOC control efficiency of 99% for total VOC's released through Emission Point LX14.
**[45CSR13, R13-2288, A.2.]**

7.1.5. Emissions sources and the associated emission points (LX4 & LX14) affected by permit R13-2288 and subject to 45CSR21, shall be subject to the standards and requirements set forth in Section 4.0 of permit R13-2678 (Sections 3.1.12, 3.4.1, 3.4.4 and Section 12.0 of this permit) and any amendments thereto, provided that compliance with any more stringent limitations set forth under Sections 7.1.3, 7.1.4 and 7.1.6 of this permit is also demonstrated.
**[45CSR13, R13-2288, A.3.]**

7.1.6. Emissions sources and the associated emission points (LX4 & LX14) affected by permit R13-2288 and subject to 45CSR27, shall be subject to the standards and requirements set forth in Section 5.0 of permit R13-2678 (Sections 3.1.12, 3.4.1, 3.4.4 and Section 13.0 of this permit) and any amendments thereto, provided that compliance with any more stringent limitations set forth under Sections 7.1.3, 7.1.4 and 7.1.5 of this permit is also demonstrated.
**[45CSR13, R13-2288, A.4, State-Enforceable only]**

7.1.7. Each of the Latex Tanks FST ##5-17, 25-33, 35-39 has a Group 2 batch process vent and shall comply with 40 C.F.R. § 63.1321 and the applicable provisions referenced therein.
**[45CSR34; 40 C.F.R. §63.1321][Latex Blend Tanks/Screeners except FST#21,22 & 23; 001-05(LX14), Latex Blend Tank #38; 001-06(LX4)]**

7.1.8. Each of the Latex Tanks FST #21, 22, and 23 is a surge Control vessel that is subject to the applicable provisions of 40 C.F.R. §63.1331 and, accordingly, shall comply with 40 C.F.R. §63.170.
**[45CSR34; 40 C.F.R. §63.1331] [Emission Units: FST # 21, 22 & 23]**

7.1.9 The Latex Process Area is subject to the equipment leak requirements of 40 C.F.R. § 63.1331 and, accordingly, shall comply with the applicable provisions of 40 CFR 63 Subpart H.
**[40 CFR §63.1331]**

## 7.2. Monitoring Requirements

7.2.1. For the purpose of demonstrating compliance with the guaranteed CTO performance requirement set forth in Section 7.1.4, the permittee shall operate and maintain a device that continuously measures and records the combustion temperature at least once every fifteen (15) minutes. Compliance with the combustion temperature requirement, as established by testing on September 19, 2007, or by the most recent test, shall be determined based on daily average temperature, which shall be calculated based on temperature measurements made at least once every fifteen (15) minutes during the time periods when the control device is operational (not including Stand-By mode). **[45CSR13, R13-2288C, B.4.]**

Note: The Latex CTO was stack-tested on September 19, 2007. The minimum temperature established was 755 degrees F. A daily average value of the operating temperature that is below the established minimum operating limit will constitute a deviation from the established operating limit. If the Latex CTO is stack-tested in the future to show compliance with Section 7.1.4 and a new minimum temperature is established, that temperature shall become the new minimum operating limit.

7.2.2. Within 30 days of the end of each calendar quarter, the permittee shall calculate lbs/hr and tons/yr of particulate emissions based on CTO fuel usage and emission factors (AP-42 or site-specific testing) to show compliance with the PM-10 emission limit in Section 7.1.3 of this permit.
**[45CSR§30-5.1.c.]**

7.2.3. Within 30 days of the end of each calendar quarter, the permittee shall calculate lbs/hr and tons/yr of Acrylonitrile, Styrene, 1,3-Butadiene, CO, NOx, $SO_2$ and Total VOC emissions based on latex area

production, emission factors (AP-42 or site-specific testing), and (for acrylonitrile, styrene, 1,3-butadiene, and Total VOC) CTO control efficiency to show compliance with Sections 7.1.1.3, 7.1.2 (except for LX6 and LX7), & 7.1.3 of this permit. **[45CSR§30-5.1.c.]**

7.2.4 Within 30 days of the end of each calendar quarter, the permittee shall calculate lbs/hr and tons/yr of 1,3-butadiene emissions based on emission factors (AP-42 or site-specific testing) to show compliance with Section 7.1.2 (LX6 and LX7 only).
**[45CSR§30-5.1.c.]**

7.2.5. **Group 1 Process Vents.**

7.2.5.1. To demonstrate compliance with Section 7.1.1 for Group 1 process vents using a flare, a device (including but not limited to a thermocouple, ultra-violet beam sensor, or infrared sensor) capable of continuously detecting the presence of a pilot flame shall be installed, calibrated, maintained, and operated according to manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.
**[45CSR34; 40 C.F.R. §§63.114(a) and 63.114(a)(2)] [LX1]**

7.2.6. To demonstrate compliance with permit condition 7.1.1.3 for 1,3-Butadiene and Total VOC using a flare, a device (including but not limited to a thermocouple, ultra-violet beam sensor, or infrared sensor) capable of continuously detecting the presence of a pilot flame shall be installed, calibrated, maintained, and operated according to manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.
**[40 C.F.R. § 64.3(a)] [LX1]**

7.2.7. **Commencement of operation**. The permittee shall conduct the monitoring required under 40 CFR Part 64 upon issuance of this permit that includes such monitoring, or by the initial start-up date of the flare 30B-01002(LX1) that requires such monitoring, whichever is later.
**[40 CFR §§ 64.7(a) and 64.6(d); 45CSR§30-5.1.c.]**

7.2.8. **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 CFR § 64.7(b); 45CSR§30-5.1.c.]**

7.2.9. **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 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 CFR 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 CFR § 64.7(c); 45CSR§30-5.1.c.]**

7.2.10. **Documentation of Need for Improved Monitoring** – After approval of monitoring under 40 CFR 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 CFR § 64.7(e); 45CSR§30-5.1.c.]**

7.2.11. **Quality Improvement Plan (QIP) –** Based on the results of a determination made under 40 CFR §64.7(d)(2) (permit condition 7.2.13.b), 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 CFR §§ 64.8(b) through (e). Refer to permit condition 7.5.2.b.3. for the reporting required when a QIP is implemented.
**[40 CFR § 64.8; 45CSR§30-5.1.c.]**

7.2.12. Excursions – Pilot flame absence may indicate an excursion.
**[40 CFR § 64.6(c)(2); 45CSR§30-5.1.c.]**

7.2.13. Response to Excursions or Exceedances

a. 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.

b. 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 CFR § 64.7(d); 45CSR§30-5.1.c.]**

## 7.3. Testing Requirements

7.3.1. Reserved.

7.3.2 Any required compliance demonstrations for the Latex Area Flare (LX1) shall be conducted in accordance with 40 CFR 63.1333(e).
**[45CSR34, 40 C.F.R. §63.1333(e)]**

## 7.4. Recordkeeping Requirements

7.4.1. For the purpose of determining compliance with the maximum permitted emission limits set forth in Section 7.1.3 of this permit for the CTO, the permittee shall maintain monthly and annual records of CTO fuel usage and latex area production. **[45CSR13, R13-2288, B.2.] [45CSR§30-5.1.c.]**

7.4.2. CTO (LX14) Recordkeeping :

7.4.2.1. The permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the CTO during which emissions occur in excess of those which are permitted in Section 7.1.3 of this permit. 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, R13-2288, B.5.] [LX14]**

7.4.3. **Group 1 Process Vents.** To demonstrate compliance with Section 7.1.1.1 for Group 1 process vents using a flare as a control device, the permittee shall keep the following records up-to-date and readily accessible: **[45CSR34; 40 C.F.R. §63.118(a)] [LX1]**

7.4.3.1. Hourly records of whether the device described in Section 7.1.1.2 was continuously operating and whether the pilot flame was continuously present during each hour.
**[45CSR34; 40 C.F.R. §63.118(a)(1) and Table 3 of 40 C.F.R. 63, Subpart G] [LX1]**

7.4.3.2. Records of the times and duration of all periods during which all pilot flames were absent or the device described in Section 7.1.1.2 was not operating shall be kept rather than daily averages.
**[45CSR34; 40 C.F.R. §63.118(a)(2) and Table 3 of 40 CFR 63 Subpart G] [LX1]**

7.4.3.3. With respect to the Latex Area flare (LX1), the permittee shall keep an up-to-date, readily accessible record of the following data:

a. Flare design (i.e., steam-assisted, air-assisted, or non-assisted);
b. All visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required by 40 C.F.R. §63.116(a).
c. All periods during the compliance determination when the pilot flame was absent.

**[45CSR34; 40 C.F.R. §63.117(a)] [LX1]**

7.4.4. **General recordkeeping requirements for 40 CFR Part 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 CFR §64.8 (7.2.11) and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 CFR Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
**[40 CFR § 64.9(b); 45CSR§30-5.1.c.]**

## 7.5. Reporting Requirements

7.5.1. The permittee shall submit Periodic Reports as described in 40 C.F.R. § 63.1335.
**[45CSR34; 40 C.F.R. §63.1335]**

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

a. On and after the date specified in 40 CFR §64.7(a) by which the permittee must use monitoring that meets the requirements of 40 CFR 64, the permittee shall submit CAM monitoring reports with the semi-annual monitoring report under permit condition 3.5.6. Incorporation by reference within the semi-annual monitoring report is not acceptable.

b. A report for monitoring under 40 CFR 64 shall include, at a minimum, the information required under permit condition 3.5.8. and the following information, as applicable:

1. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

2. 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

3. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR §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 CFR § 64.9(a); 45CSR§30-5.1.c.]**

## 7.6. Compliance Plan

None

## 8.0 Resin Process [Emission Point ID(s): RA1, 2, 5; RN1; RC1, 2, 3; RN1; RE1, 2, 3; RG1, 2, 3; RJ 1 to 6; 10J-V26013]

### 8.1. Limitations and Standards

8.1.1. Emissions of volatile organic compounds from the Caustic Scrubber/Carbon Canister system emission point ID 09-12010, shall be limited to the following:

Table 8.1.1

| Emission Point ID | Source Description | Allowable Emissions (lb/hr) | Allowable Emissions (TPY) |
|---|---|---|---|
| 09-12010 Caustic Scrubber | Process Units[1] | 0.4 | 0.7 |
| RJ6 Carbon Canister[2] | Polybutyl Acrylate Latex Storage Tanks #4 and #5 | 0.1 | 0.1 |

[1] Process- Units consist of Butyl Acrylate/triallyl cyanurate Mix Tank, Butyl Acrylate/triallyl cyanurate Feed Tank, 30-Gallon Reactor Mix Pot, Polybutyl Acrylate Reactor, Polybutyl Acrylate Latex Hold Tank, Polybutyl Acrylate Startup Tank, and Polybutyl Acrylate Latex Storage Tanks #1, 2, 3, and 6.
[2] As set forth in Section 8.1.2 used for periods when the Resin A-catalytic oxidizer, 10A-V28, is not operating, emissions from Polybutyl Acrylate Latex Storage Tanks #4 and #5 will be vented to RJ6-carbon canister, for odor abatement.

**[45CSR13, R13-2084, A.3.]**

8.1.2. Emissions from Polybutyl Acrylate Latex Storage Tanks #4 and #5 will be vented through the Resin A catalytic oxidizer, identified and permitted as Emission Point ID No. 10A-V28 in existing current permit R13-1886. For periods when the Resin A catalytic oxidizer is not operating, emissions from the two tanks will be vented to a carbon canister, emission point ID RJ6, which shall not exceed the allowable limits set forth in Section 8.1.1 of this permit.

**[45CSR13, R13-2084, A.4.]**

8.1.3. Emissions of particulate matter from the Supersack Hopper and the PBA Process Solution Tanks to the atmosphere shall be limited to the following:

Table 8.1.3

| Emission Point ID | Source Description | Allowable Emissions (lb/hr) | Allowable Emissions (TPY) |
|---|---|---|---|
| 10J-V26013 | Supersack Hopper | 0.2 | 0.8 |
| 10J-V26014 | Solution Tanks[3] | 0.13 | 0.58 |

[3] The solution tanks consist of Activator Make-up Tank, Activator Feed Tank, Tetrasodium Pyrophosphate Solution Make-up Tank, Polybutyl Acrylate $FeSO_4$ Make-up Tank, Polybutyl Acrylate $FeSO_4$ Feed Tank, Solution Make-up Tank, Sodium Formaldehyde Sulfoxalate Solution Feed Tank, Ethylene-dinitrilo-tetraacetic acid Solution Feed Tank, and Tetrasodium Pyrophosphate Solution Feed Tank.

**[45CSR13, R13-2084, A.6.]**

8.1.4. Emissions of Sulfur Dioxide ($SO_2$), which are generated from the Sodium Formaldehyde Sulfoxalate storage tank designated as 10J-08083, shall be limited to 0.03 pounds per hour or 0.13 tons per year.

**[45CSR13, R13-2084, A.7.]**

8.1.5. Emissions from Emission Point C-2 (Resin C dryer) shall not exceed the following:

| **Pollutant** | **lb/hr** | **ton/yr** |
|---|---|---|
| Particulate Matter | 0.075 | 0.20 |
| TOTAL: | 0.075 | 0.20 |
| VOC | | |
| Acrylonitrile | 0.282 | 0.74 |
| Methyl methacrylate | 0.422 | 1.11 |
| Styrene | 0.948 | 2.49 |
| Others (including 4-vinyl-cyclohexane, ethyl-benzene, cumene, and alpha-methyl-styrene) | 0.137 | 0.36 |
| TOTAL: | 1.79 | 4.7 |

**[45CSR13, R13-1351, A.1.]**

8.1.6. Resin as fed to the flash-fluidized bed dryer system shall not exceed 9,500 lb/hr (dry basis) or 50,000,000 lb per year (dry basis).
**[45CSR13, R13-1351, A.2.]**

8.1.7. Wet resin fed to the flash-fluidized bed dryer system shall not contain acrylonitrile in excess of 2,400 ppm.
**[45CSR13, R13-1351, A.3.]**

8.1.8. Carbon bed absorption system as applied to combination flash-fluidized bed drying system shall reduce potential acrylonitrile emissions by 98.76%. Potential emissions shall be based on inlet concentration to the flash dryer. **[45CSR13, R13-1351, A.4.]**

8.1.9. Secondary acrylonitrile emissions associated with waste water treatment shall not be included in calculations determining the efficiency as described under Section 8.1.8 of this permit above and such emissions shall not exceed 0.076 lb/hr or 0.20 ton/yr.
**[45CSR13, R13-1351, A.5.]**

8.1.10. The Resin C Dryer shall comply with all applicable requirements of 45CSR27 provided, however, that compliance with any more stringent limitations set forth under Sections 8.1.5 to 8.1.9 of this permit is also demonstrated. Under permit R13-1351A it has been determined that compliance with the provisions set forth under Sections 8.1.8 & 8.1.9 of this permit above meets BAT under 45CSR27.
**[45CSR13, R13-1351, B.3, State-Enforceable only.]**

8.1.11. Emissions of styrene, acrylonitrile, and methyl methacrylate generated as a result of operations associated with Reactor #3 [10C-04008], Reactor #4 [10C-04009], Reactor #5 [10C-04010], Coag #2 Tank [10C-08115], AOE Melt Tank [10C-08111], AOE Mix Tank [10C-08112], AOE Feed Tank [10C-08114], NOE Feed Tank [10C-08113], and Vacuum Drum Filter [10C-28052] shall be ducted to the existing Resin C catalytic incinerator [10C-01002].
**[45CSR13, R13-1588, A.1.]**

8.1.12. Emissions to the atmosphere from the stack [C1] venting the Resin C catalytic incinerator [10C-01002] shall not exceed the following:

| **Pollutant** | **lb/hr** | **lb/yr** |
|---|---|---|
| Styrene | 2.00 | 8,000 |
| Acrylonitrile | 1.95 | 17,082 |
| Methyl Methacrylate | 2.20 | 10,000 |
| Total VOC | 3.70 | 19,000 |
| $NO_x$ | 17.00 | 148,600 |

**[45CSR13, R13-1588, A.2.]**

8.1.13. The maximum allowable emissions released to the atmosphere in association with the operation of RESIN A shall be limited to the regulated pollutants and emission rates from the associated emission points listed in Table 8.1.13 of this permit.

Table 8.1.13.

| **Source** | **Emission Point ID** | **Pollutant** | **Emission Rates** | |
|---|---|---|---|---|
| | | | **Hourly (PPH)** | **Annual (TPY)** |
| Latex Storage Tanks | 10A-V16<br>10A-V18<br>10A-V20<br>10A-V22<br>10A-V24 | Acrylonitrile | 4.5 | 1.0 |
| | | Methyl Methacrylate | 0.2 | 0.1 |
| | | Styrene | 0.3 | 0.1 |
| | | Total VOC | 6.1 | 1.2 |
| Catalytic Incinerator (10A-12021) | 10A-V28 | Nitrogen Oxides | 6.10 | 17.3 |
| | | Sulfur Dioxide | 1.90 | 8.4 |
| | | Particulate Matter | 0.02 | 0.07 |
| | | Carbon Monoxide | 0.25 | 1.10 |
| | | Acrylonitrile | 0.82 | 2.31 |
| | | Methyl Methacrylate | 1.27 | 2.39 |
| | | Styrene | 0.60 | 2.01 |
| | | Total VOC | 1.76 | 7.37 |
| Pre-dryer and Dryer | 10A-V32<br>10A-V34 | Particulate Matter | 0.40 | 0.8 |
| | | Acrylonitrile | 0.85 | 2.38 |
| | | Methyl Methacrylate | 12.84 | 20.38 |
| | | Styrene | 23.47 | 77.28 |
| | | Total VOC | 32.36 | 133.01 |

| Source | Emission Point ID | Pollutant | Emission Rates | |
|---|---|---|---|---|
| | | | Hourly (PPH) | Annual (TPY) |
| Resin Transfer | 10A-V36<br>10A-V38<br>10A-V40<br>10A-V42 | Particulate Matter | 1.20 | 1.00 |
| | | Acrylonitrile | 0.02 | 0.02 |
| | | Methyl Methacrylate | 0.62 | 0.64 |
| | | Styrene | 0.62 | 0.64 |
| | | Total VOC | 1.64 | 1.68 |

**[45CSR13, R13-1886, 4.1.2]**

8.1.14. The maximum allowable emissions released to the atmosphere in association with the operation of RESIN E shall be limited to the regulated pollutants and emission rates from the associated emission points listed in Table 8.1.14 of this permit.

Table 8.1.14.

| Source | Emission Point ID | Pollutant | Emission Rates | |
|---|---|---|---|---|
| | | | Hourly (PPH) | Annual (TPY) |
| Latex Storage Tanks | 10E-V38<br>10E-V40<br>10E-V42<br>10E-V44<br>10E-V46<br>10E-V48<br>10E-V50 | Acrylonitrile | 1.0 | 0.9 |
| | | Total VOC | 5.0 | 2.43 |
| Catalytic Incinerator (10E-01002) | 10E-V56 | Nitrogen Oxides | 20.0 | 34.4 |
| | | Sulfur Dioxide | 3.06 | 8.16 |
| | | Carbon Monoxide | 0.24 | 1.05 |
| | | Particulate Matter | 0.02 | 0.09 |
| | | Acrylonitrile | 3.0 | 4.8 |
| | | Total VOC | 13.0 | 24.0 |
| Dryer | 10E-V60 | Particulate Matter | 1.0 | 0.64 |
| | | Acrylonitrile | 8.0 | 7.9 |
| | | Total VOC | 35.0 | 45.0 |
| Resin Transfer | 10E-V62<br>10E-V64<br>10E-V66<br>10E-V68<br>10E-V70<br>10E-V72<br>10E-V74 | Particulate Matter | 1.0 | 1.92 |
| | | Acrylonitrile | 1.0 | 0.05 |
| | | Total VOC | 2.0 | 1.75 |

**[45CSR13, R13-1886, 4.1.3]**

8.1.15. The maximum allowable emissions released to the atmosphere in association with the operation of RESIN J shall be limited to the regulated pollutants and emission rates from the associated emission points listed in Table 8.1.15 of this permit.

Table 8.1.15.

| Source | Emission Point ID | Pollutant | Emission Rates | |
|---|---|---|---|---|
| | | | Hourly (PPH) | Annual (TPY) |
| Latex Storage Tanks | 10J-V04<br>10J-V06<br>10J-V08<br>10J-V10 | Acrylonitrile | 1.0 | 1.2 |
| | | Total VOC | 5.0 | 2.9 |
| Catalytic Incinerator (RJ1) (10J-01001) | 10J-V14 | Nitrogen Oxides | 14.0 | 35.0 |
| | | Sulfur Dioxide | 4.08 | 15.3 |
| | | Carbon Monoxide | 0.19 | 0.83 |
| | | Particulate Matter | 0.02 | 0.08 |
| | | Acrylonitrile | 6.0 | 5.1 |
| | | Styrene | 0.59 | 1.17 |
| | | Total VOC | 15.0 | 12.0 |
| Dryer | 10J-V20 | Particulate Matter | 1.0 | 0.96 |
| | | Acrylonitrile | 15.0 | 12.0 |
| | | Total VOC | 222.0 | 230.0 |
| Resin Transfer | 10J-V18<br>10J-V22<br>10J-V24<br>10J-V26 | Particulate Matter | 1.0 | 1.92 |
| | | Acrylonitrile | 1.0 | 0.05 |
| | | Total VOC | 2.0 | 1.75 |

**[45CSR13, R13-1886, 4.1.4]**

8.1.16. The permittee shall vent process generated acrylonitrile, styrene, methyl methacrylate, and total VOC, specified in Sections 8.1.13, 8.1.14, and 8.1.15 of this permit, to the corresponding catalytic incinerators at all times, except in the event of an unavoidable malfunction, emergency repair, or when no process vent emissions are occurring. In the event of an unavoidable malfunction or emergency repair, process vent emissions to the atmosphere shall be minimized and the permittee shall take the following actions:

a. The Director shall be notified and any variances requested in accordance with the requirements set forth in 45CSR27.

b. The relevant coagulant feed shall be immediately terminated.

c. The relevant reaction process will be discontinued once the in-process material is processed.
**[45CSR13, R13-1886, 4.1.5]**

8.1.17. The catalytic incinerators within RESIN A, RESIN E, and RESIN J shall be operated and maintained so to provide a minimum destruction efficiency of 92% for total VOC and acrylonitrile emissions.
**[45CSR13, R13-1886, 4.1.6]**

8.1.18. The permittee shall be limited to the regulated pollutants and associated emission rates from those sources and respective emission points identified in Table 8.1.18 of this permit.

Table 8.1.18

| Emission Point | Source | | Pollutant | Emissions | |
|---|---|---|---|---|---|
| | ID | Description | | Hourly (PPH) | Annual (TPY) |
| RC3 | 003-03 | Resin C Blend Tanks | Acrylonitrile | --- | 0.8 |
| RG3 | 005-03 | Resin G Blend Tanks | Acrylonitrile | --- | 1.0 |
| G1 (RG1) (10G-01001) | 005-01 | Resin G Fume Burner (Resin G Catalytic Incinerator) | $NO_X$ | --- | 39* |
| | | | VOC | 2.0 | 6.0 |
| | | | Acrylonitrile | 2* | 1.0* |
| G2 | 005-02 | Resin G Dryer | VOC | 25.0 | 80.0 |
| | | | Acrylonitrile | 5* | 4.5* |
| RN1 | 00D-01 | Resin C & G Transfer | Acrylonitrile | --- | 0.3* |

*State-Enforceable only.
**[45CSR13, R13-1886, 4.1.7.]**

8.1.19 Continuous and Aggregate Batch Process Vents:

Each of the four Resin buildings A, C, E, and J contains batch reactors and continuous coagulation and vacuum equipment. Emissions from this equipment are regulated under Subpart JJJ as follows:

a. When the emissions from the batch reactors are combined with the emissions from the continuous coagulation and vacuum equipment, the resulting emissions are a combined vent stream under Subpart JJJ. This combined vent stream is a Group 1 Continuous Process Vent, which shall comply with 40 C.F.R. §63.1315 as specified in 40 C.F.R. §63.1313(b)(2)(i).

b. When the continuous coagulation and vacuum equipment is not being operated and, as a result, the emissions from the batch reactors are not combined with any other organic HAP emissions, the combined reactor emissions are an aggregate batch vent stream that contains one or more Group 1 batch process vents under Subpart JJJ. This aggregate batch vent stream shall comply with 40 C.F.R. §63.1321, as specified in 40 C.F.R. §63.1313(a)(3).

**[45CSR34, 40 C.F.R § 63.1313] [Resin Building A, C, E, & J Reactor-Coagulation-Vacuum systems]**

Note: 40 C.F.R. §63.1321 requires compliance with the requirements of 40 C.F.R. §§63.1322 through 63.1327. The specific requirements in 40 C.F.R. §63.1322 for an aggregate batch vent stream that contains one or more Group 1 batch process vents are found at 40 C.F.R. §63.1322(b). The emission control requirement at 40 C.F.R. §63.1322(b)(2) (for Condition 8.1.19.b) is less stringent than that at 40 C.F.R. §63.1315 (for Condition 8.1.19.a). Compliance with 40 C.F.R. §63.1315 is demonstrated via approved alternative monitoring, as described in Condition 8.2.1. However, the approved alternative monitoring plan does not currently address the less stringent requirements of 40 C.F.R. §63.1322(b)(2). Thus, the permittee will demonstrate compliance with 8.1.19.b using the same conditions in Condition 8.2.1 that demonstrate compliance with Condition 8.1.19.a, which is more stringent than required by Condition 8.1.19.b.

8.1.20 Continuous Process Vent

Resin building G contains a continuous process vent from continuous reactors and from continuous coagulation and vacuum equipment, and this continuous process vent is considered a Group 1 Continuous Process Vent under subpart JJJ that is required to comply with 40 C.F.R §63.1315 as specified in 40 C.F.R. §63.1313(a)(2).

**[45CSR34, 40 C.F.R § 63.1313] [Resin Building G Reactor-Coagulation-Vacuum system]**

8.1.21. Group 2 Process Vents:
Each of the five Resin buildings A, C, E, G, and J contains a Resin dryer, the exit of which is considered a Group 2 continuous process vent under Subpart JJJ that is required to comply with 40 C.F.R. §63.1315.
**[45CSR34, 40 C.F.R. § 63.1315] [Resin A, C, E, G & J dryers; 002-02,003-02,004-02,005-02,006-02]**

8.1.22. Each of the following Resin Tanks is a surge control vessel that is subject to the applicable provisions of 40 C.F.R. §63.1331 and, accordingly, shall comply with 40 C.F.R. §63.170: Resin A, LST # 2, 4-7; Resin C, LST # 4-8; Resin E, LST # 1-5, 7 & 8; Resin G, LST # 1-6; Resin J, LST # 3-6.
**[45CSR34; 40 C.F.R. §63.1331]**

8.1.23. The Resin Process Area is subject to the equipment leak requirements of 40 C.F.R. § 63.1331 and, accordingly, shall comply with the applicable provisions of 40 CFR 63 Subpart H.
**[40 C.F.R. §63.1331; 45CSR34]**

## 8.2. Monitoring Requirements

8.2.1. To comply with Section 8.1.19 & 8.1.20 of this permit, the permittee has been approved to use, and shall comply with, the following alternative monitoring to assure that the catalytic incinerators operate in compliance with 40 C.F.R. 63 Subpart JJJ:

a. Continuous flow monitoring and recording of the volumetric flow stream (which translates into space velocity across the catalyst bed);
b. Continuous inlet (inlet to the catalyst bed; after the incinerator burner) temperature recording;
c. Annual analysis of catalyst activity; and
d. Recording of catalyst bed replacement date.

**[45CSR34, 40 C.F.R. 63, Subpart JJJ] [Resin A, C, E, G & J Catalytic Incinerators; 002-01,003-01,004-01,005-01,006-01]**

Note: According to the Notification of Compliance Status submitted on November 15, 2001, the following are the minimum parameter monitoring levels for the catalytic incinerators:

Table 5A – Minimum parameter monitoring levels for the catalytic Incinerators

| Resin Building | Minimum Catalyst Bed Inlet Temperature (deg F) | Minimum Volumetric Flow (CFM) |
|---|---|---|
| Resin A | 744 | 1,500 |
| Resin C | 736 | 1,000 |
| Resin E | 750 | 2,000 |
| Resin G | 744 | 1,500 |
| Resin J | 702 | 1,500 |

A daily average value of any parameter that is below its established minimum operating limit will constitute a deviation from the established operating limit. If any catalytic incinerator is stack-tested in the future to show compliance with Section 8.1.19 and/or 8.1.20 and a new minimum temperature or flow rate

is established, that temperature or flow rate shall become the new minimum operating limit.

8.2.2. Group 2 Continuous Process Vents
Resin Dryers with 1 < TRE ≤ 4:
To comply with Section 8.1.21 of this permit, continuously monitor and record emissions (according to 40 C.F.R. 63, Subpart JJJ) from the dryers to verify that the daily average TRE index value for each dryer vent does not fall below 1.0.
**[45CSR34, 40 C.F.R. §63.1315(a), 40 C.F.R. §63.114(c)][Resin A, G & J dryers]**

8.2.3. Within 30 days of the end of each calendar quarter, the permittee shall calculate lbs/hr and tons/yr of particulate emissions based on material throughput, emission factors (AP-42 or site specific testing) and control system efficiency to show compliance with Sections 8.1.3, and 8.1.13 to 8.1.15 of this permit.
**[45CSR§30-5.1.c.]**

8.2.4. Within 30 days of the end of each calendar quarter, the permittee shall calculate lbs/hr and tons/yr of Acrylonitrile, Cumene, Ethyl Benzene, Styrene, VOC, $SO_2$, Methyl Methacrylate, Other VOCs, NOx and CO emissions based on material throughput, emission factors (AP-42 or site specific testing) and control efficiency to show compliance with Sections 8.1.1, 8.1.4, 8.1.5, 8.1.12, 8.1.13, 8.1.14, 8.1.15 and 8.1.18 of this permit.
**[45CSR§30-5.1.c.]**

## 8.3. Testing Requirements

8.3.1. The caustic scrubber (ID # 09-12010) liquor pH shall be tested and recorded on a monthly basis. The scrubber liquor shall be replaced when its pH drops below a value of 9.
**[45CSR13, R13-2084, A.5.]**

8.3.2. At the request of the Director, the method of determining compliance with the emissions limits presented in Section 8.1.1 of this permit will be EPA Method 25 and/or Method 25A stack testing conducted on the outlet of the Caustic Scrubber/Carbon Canister System. The results of this test will be converted to code specific process loss factors (lb loss/M lb production).

Actual emissions of VOC from the Caustic Scrubber/Carbon Canister system will be based on code specific process loss factors (lb loss / M lb production) and actual production (as shown in the following example calculation):

lb pollutant emitted (VOC) /calendar quarter = (M lb production of code A / calendar quarter) x (lb pollutant /M lb production of Code A) x (1- destruction efficiency/100)

Hourly emissions will be estimated in a similar manner by applying the maximum hourly production of the PBA process by the code specific process loss factor. If the code specific emissions factor shows that the hourly emissions can exceed the hourly allowable emissions limit the daily actual production divided by 24 hours will be used as the actual hourly production.
**[45CSR13, R13-2084, B.1.]**

8.3.3. At the request of the Director, the method of determining compliance with the emissions limits presented in Section 8.1.3 of this permit will be EPA Method 9 stack testing conducted on the outlet of the supersack hopper dust collector and solution tank dust collector respectively.
**[45CSR13, R13-2084, B.2.]**

8.3.4. At the request of the Director, the method of determining compliance with the emissions limits presented in Section 8.1.4 of this permit will be EPA method 6 stack testing conducted on the outlet of the solution tank

dust collector. The results of this test will be converted to code specific process loss factors (lb loss/M lb production).
Actual emissions of SO2 from the solution tank dust collector will be based on code specific process loss factors (lb loss / lb SFS mixed) and actual production (as shown in the following example calculation):
lb pollutant emitted (SO2) /calendar quarter = (lb SFS mixed / calendar quarter) x (lb pollutant /lb SFS mixed)

Hourly emissions will be estimated in a similar manner by applying the maximum hourly mixing rate of the SFS by the code specific process loss factor. If the code specific emissions factor shows that the hourly emissions can exceed the hourly allowable emissions limit the daily actual production divided by 24 hours will be used as the actual hourly production.
**[45CSR13, R13-2084, B.3.]**

8.3.5. Tests to establish compliance with emission limitations set forth under Section 8.1.5 of this permit shall be performed in accordance with the following test methods as set forth under 40 CFR Part 60 Appendix A or as approved by the WVAPCC Director:

| | |
|---|---|
| Particulates | Method 5 |
| Total VOC | Method 25 |
| Acrylonitrile | Method 25 with gas chromatographic FID system |
| Methyl methacrylate | Method 25 with gas chromatographic FID system |
| Styrene | Method 25 with gas chromatographic FID system |

**[45CSR13, R13-1351, B.4.]**

8.3.6. Test to establish compliance with acrylonitrile percentage reduction as required under Section 8.1.8 of this permit shall be determined by test methodology as set forth under Section 8.3.5 of this permit in conjunction with ppm (by weight) determination of acrylonitrile in feed and dried product associated with flash-fluidized bed drying system. **[45CSR13, R13-1351, B.5.]**

8.3.7. For any stack testing of the Resin C incinerator required by DAQ, the following test methods shall be employed:

| | |
|---|---|
| Styrene | Method 18 |
| Acrylonitrile | Method 18 |
| Methyl Methacrylate | Method 18 |
| Total VOC | Method 25 or 25A |
| $NO_X$ | Method 7, 7B, or 7E |

The above methods may be found in 40 CFR 60 Appendix A. Alternate methods may be accepted if prior approval is granted by the Director
**[45CSR13, R13-1588, B.2.]**

## 8.4. Recordkeeping Requirements

8.4.1. In order to demonstrate compliance with Sections 8.1.13, 8.1.14, and 8.1.15 calculations of Nitrogen oxide emissions from the catalytic incinerators (in Resin A, E and J) shall be based on code-specific process loss factors (lb acrylonitrile/M lb production), nitrogen oxide loss factors (lb $NO_X$ generated/lb acrylonitrile destroyed), and actual production, as shown in the following sample calculation for resin code A:

**lb $NO_X$ emitted/calendar quarter** = (M lb production of code A/calendar quarter) x (lb acrylonitrile/M lb production code A) x (destruction efficiency/100) x (lb $NO_X$ generated/lb acrylonitrile destroyed),

and shall be summed on a calendar quarter basis (i.e., January 1st to March 31st, April 1st to June 30th, July

1st to September 30th, and October 1st to December 31st) for all codes produced in RESIN A, E, and J.
**[45CSR13, R13-1886, 4.4.4]**

8.4.2. In order to demonstrate compliance with Sections 8.1.13, 8.1.14, and 8.1.15 calculations of emissions of acrylonitrile, styrene, methyl methacrylate, and total VOCs from the RESIN A catalytic incinerator, and emissions of acrylonitrile and total VOC from the RESIN E and RESIN J catalytic incinerators shall be based on code specific process loss factors (lb loss/M lb production) and actual production as shown in the following calculation for resin code A:

**lb pollutant/calendar quarter** = (M lb production code A/calendar quarter) x (lb pollutant/M lb production of code A) x (1 - destruction efficiency/100),

and shall be summed on a calendar quarter basis for all codes produced in RESIN A, E, and J.
**[45CSR13, R13-1886, 4.4.5]**

8.4.3. In order to demonstrate compliance with Sections 8.1.13, 8.1.14, and 8.1.15 emissions from the dryers in RESIN A, E, and J shall be calculated in the same manner as specified under Section 8.4.2 of this permit, but without application of the destruction efficiency, and summed on a calendar quarter basis for all codes produced in RESIN A, E, and J.
**[45CSR13, R13-1886, 4.4.6]**

8.4.4. In order to demonstrate compliance with the emission limitations specified in Sections 8.1.13, 8.1.14 & 8.1.15 and 8.1.18 of this permit the permittee shall maintain sufficient data including, but not limited to, (resin) production, process loss factors, and catalytic incinerator destruction efficiencies, so that emissions are verifiable upon inspection by the Director or a duly authorized representative.
**[45CSR13, R13-1886, 4.4.7]**

8.4.5. Emissions from the Latex Storage Tanks identified in Tables 8.1.13, 8.1.14, and 8.1.15 and the Resin Blend Tanks identified in 8.1.18 of this permit shall be based on AP-42 tank equations.
**[45CSR13, R13-1886, 4.4.8]**

8.4.6. The permittee shall maintain quarterly records of Butyl Acrylate usage, Polybutyl Acrylate production, and acrylonitrile-styrene-acrylate production, and any other information required to demonstrate compliance. Said records shall be maintained onsite (or accessible electronically at the site) for a period of five years and shall be made available to the Director or his/her duly authorized representative upon request and shall be certified by a responsible official upon submittal.
**[45CSR13, R13-2084, A.8. and B.4]**

8.4.7. The permittee shall maintain quarterly records listing the amount of styrene, acrylonitrile, methyl methacrylate, and total VOC emitted from emission point C1 for the previous calendar quarter. Each record shall contain sufficient data (production, emission factor, destruction efficiency, etc.) so as to be verifiable by personnel of DAQ. This information shall be maintained on-site for a period of no less than five (5) years and made available to the Director or his duly authorized representative upon request and shall be certified by a "Responsible Official" upon submittal.
**[45CSR13, R13-1588, B.1.]**

8.4.8. With respect to the continuous process vents, the permittee shall comply with the recordkeeping requirements of 40 CFR §63.1315.
**[45CSR34, 40 C.F.R. §63.1315]**

## 8.5. Reporting Requirements

8.5.1. The permittee shall submit reports as required by 40 C.F.R. § 63.1335.

## 8.6. Compliance Plan

None

## 9.0 Technology Center Extruders – S and V lines [Emission Point ID(s): WS-E1, E2 & E3; WV-E1, E2 & E3]

### 9.1. Limitations and Standards

9.1.1. Emissions to the atmosphere from process vents of the WS and WV extrusion lines shall not exceed the following limits:

| Emission Point ID Number | Source ID Number and Description | Control Device | Pollutant | Emission Limits | |
|---|---|---|---|---|---|
| | | | | pph | tpy |
| WS-E1<br>WS-E2 | WS-X1 (WS extruder)<br>WS-S1 (WS screens) | None | Acrylonitrile<br>Cumene<br>Ethyl Benzene<br>Styrene<br>VOC[1] | 0.09<br>0.06<br>0.01<br>0.38<br>2.35 | 0.39<br>0.26<br>0.01<br>1.65<br>10.27 |
| WS-E3 | WS-F1 (resin feeder 1)<br>WS-F2 (resin feeder 2)<br>WS-H1 (hopper 1)<br>WS-H2 (hopper 2)<br>WS-H3 (hopper 3)<br>WS-H4 (hopper 4)<br>WS-X1 (overflow to extruder)<br>WS-X1 (chute to extruder)<br>[together, the "WS Line (PM10)"] | WS-DC1<br>(dust collector/ baghouse)<br>(015-26012) | $PM_{10}$ | 0.08 | 0.35 |
| WV-E1<br>WV-E2 | WV-X1 (WV extruder) | None | Acrylonitrile<br>Cumene<br>Ethyl Benzene<br>Styrene<br>VOC[1] | 0.35<br>0.27<br>0.08<br>3.37<br>5.91 | 1.53<br>1.16<br>0.34<br>14.73<br>25.86 |
| WV-E2 | WV-X1 (overflow to extruder) | None | $PM_{10}$ | 0.64 | 2.81 |
| WV-E3 | WV-F1 (resin feeder 1)<br>WV-F2 (resin feeder 2)<br>WV-H1 (hopper 1)<br>WV-H2 (hopper 2)<br>WV-H3 (hopper 3)<br>WV-X1 (chute to extruder)<br>[together, the "WV Line (PM10)"] | WV-DC1<br>(dust collector/ baghouse)<br>(015-26013) | $PM_{10}$ | 0.08 | 0.34 |

[1] HAP and Non-HAP VOC.

**[45CSR13, R13-0992, A.1.]**

9.1.2. The WS extrusion line shall not exceed a production rate of 13.6 production units per hour. The WV extrusion line shall not exceed a production rate of 9.1 production units per hour.
**[45CSR13, R13-0992, A.2.]**

9.1.3. The permittee shall not emit particulate matter to the atmosphere from emission point WS-E3 or emission point WV-E3 without the corresponding dust collector/baghouse, WS-DC1 or WV-DC1, being in proper operating condition. **[45CSR13, R13-0992 A.3.]**

## 9.2. Monitoring Requirements

9.2.1. Within 30 days of the end of each calendar quarter, the permittee shall calculate lbs/hr and tons/yr of Acrylonitrile, Cumene, Ethyl Benzene, Styrene and VOC emissions based on material throughput, emission factors (AP-42 or site specific testing) to show compliance with Section 9.1.1 of this permit.
**[45CSR§30-5.1.c.]**

9.2.2. In order to comply with the Compliance Assurance Monitoring (CAM) rule (40 CFR 64) for the pollutant-specific emission units WS Line (PM10) and WV Line (PM10), the permittee shall conduct daily Method 22-like visible emission checks on emission points WS-E3 and WV-E3. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 C.F.R. Part 60, Appendix A, Method 22 or from the lecture portion of the 40 C.F.R. Part 60, Appendix A, Method 9 certification course.

The visible emission check shall be performed during periods of pollutant-specific emission unit operation at least once per day during daylight hours and appropriate weather conditions for a sufficient time interval to determine if any visible emissions are present. For CAM, an excursion is defined as any visible emissions during the daily observations.

If visible emissions are present during these checks or at any other time, visible emissions evaluations in accordance with 45CSR§§7A-2.1.a. and 2.1.b. shall be conducted immediately. Such evaluations shall not be required if the visible emissions condition is corrected as expeditiously as possible and the cause and corrective measures taken are recorded. The 45CSR7A evaluations shall be conducted during periods of pollutant-specific emission unit operation.

Compliance with Condition 9.2.2 satisfies the requirements of Condition 3.2.1.

**[45CSR§30-5.1.c., 45CSR§7A-2.1., 40 CFR §§64.3(a), 64.3(b), and 64.6(c)(2),]**

9.2.3. **Documentation of Need for Improved Monitoring** – After approval of monitoring under 40 CFR 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 CFR § 64.7(e); 45CSR§30-5.1.c.]**

9.2.4. Response to Excursions or Exceedances

a. 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.

b. 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 CFR § 64.7(d); 45CSR§30-5.1.c.]**

9.2.5. For CAM, if five (5) excursions occur during a 6-month reporting period, a Quality Improvement Plan (QIP) will be developed and implemented.
**[45CSR§30-5.1.c., 40 CFR §64.8(a)]**

## 9.3. Testing Requirements

None

## 9.4. Recordkeeping Requirements

9.4.1. The permittee shall maintain records of all maintenance work performed in connection with the WS-DC1 and WV-DC1 dust collectors/baghouses.
**[45CSR13, R13-0992, B.2.]**

9.4.2. For the purpose of determining compliance with permit limits based on production rates, Sections 9.1.1 and 9.1.2 of this permit, the permittee shall maintain records on a daily, monthly, and rolling twelve (12) month total basis. These documents shall record production units of product produced on the WS and WV extrusion lines.
**[45CSR13, R13-0992, B.1.]**

9.4.3. The permittee shall maintain records of all monitoring data required by Condition 9.2.2 above documenting the date and time of each visible emission check, the emission point or pollutant-specific emission unit identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6 - 10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in 45CSR7A, the data records of each observation shall be maintained per the requirements of 45CSR7A. For a pollutant-specific emission unit out of service during the normal daily evaluation, the record of observation may note “out of service” (O/S) or equivalent.
**[45CSR§30-5.1.c.]**

9.4.4. **General recordkeeping requirements for 40 CFR Part 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 (if any), corrective actions taken, any written quality improvement plan required pursuant to 40 CFR §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required

to be maintained under 40 CFR Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). **[40 CFR § 64.9(b); 45CSR§30-5.1.c.]**

## 9.5. Reporting Requirements

### 9.5.1. General reporting requirements for 40 C.F.R. Part 64 (CAM)

a. On and after the date specified in 40 CFR §64.7(a) by which the permittee must use monitoring that meets the requirements of 40 CFR 64, the permittee shall submit CAM monitoring reports with the semi-annual monitoring report under permit condition 3.5.6. Incorporation by reference within the semi-annual monitoring report is not acceptable.

b. A report for monitoring under 40 CFR 64 shall include, at a minimum, the information required under permit condition 3.5.6 and the following information, as applicable:

   1. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

   2. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR §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 CFR § 64.9(a); 45CSR§30-5.1.c.]**

## 9.6. Compliance Plan

None

## 10.0 Pilot Plant & QC Lab [Emission Point ID(s): 001-02 & QC1]

### 10.1. Limitations and Standards

10.1.1. The permittee shall be limited to the regulated pollutants and associated emission rates from those sources and respective emission points identified in Table 10.1.1 of this permit.

Table 10.1.1.

| Emission Point | Source | | Pollutant | Emissions | |
|---|---|---|---|---|---|
| | ID | Description | | Hourly (PPH) | Annual (TPY) |
| 001-02 | PP1 | ABS Pilot Plant | Acrylonitrile | --- | 1.64 |
| | | | 1,3-Butadiene | --- | 1.28 |

**[45CSR13, R13-1886, 4.1.7.]**

10.1.2. The permittee shall implement and maintain a Leak Detection and Repair (LDAR) program for the ABS Pilot Plant in order to reduce emissions of TAP in accordance with the methods of 40CFR63, Subpart H – National Emission Standards for Organic Hazardous Air Pollutants and Equipment Leaks. Compliance with the methods of 40CFR63, Subpart H shall be considered demonstration of compliance with the provisions of 45CSR§27-4- Fugitive Emissions of Toxic Air Pollutants.
**[45CSR13, R13-2678, 5.2.1; 45CSR§27-4; State-Enforceable only.]**

10.1.3. The permittee shall be limited to the regulated pollutants and associated emission rates from the source and emission point identified in Table 10.1.3 of this permit.

Table 10.1.3.

| Emission Point | Source | | Pollutant | Emissions | |
|---|---|---|---|---|---|
| | ID | Description | | Hourly (PPH) | Annual (TPY) |
| QC1 | 00E-03 | Quality Control Lab | Acrylonitrile | --- | 0.05 |

**[45CSR13, R13-1886, 4.1.7, State-Enforceable only.]**

### 10.2. Monitoring Requirements

10.2.1. Within 30 days of the end of each calendar quarter, the permittee shall calculate lbs/hr and tons/yr of Acrylonitrile and 1,3-Butadiene emissions based on material throughput and emission factors (AP-42 or site specific testing) to show compliance with Section 10.1.1 of this permit.
**[45CSR§30-5.1.c.]**

10.2.2. The permittee shall calculate on an annual basis tons/yr of Acrylonitrile emissions based on material throughput and emission factors (AP-42 or site specific testing) to show compliance with Section 10.1.3 of this permit.
**[45CSR§30-5.1.c.]**

### 10.3. Testing Requirements

None

## 10.4. Recordkeeping Requirements

None

## 10.5. Reporting Requirements

None

## 10.6. Compliance Plan

None

## 11.0 Bulk Solids (Resin/Pellet) Transfer [Emission Point ID(s): 55-57, 55-95, E-1, E-2, SC-28, SC-29, SC-33, SC-34, SC-45, SC-46, SC A1-1, SC A1-2, C-5 & ABS Resin Dust Collector]

### 11.1. Limitations and Standards

11.1.1. The permit shall include the production equipment and associated pollution control devices as shown in Table 11.1.1.

**Table 11.1.1**

| Equipment | | Pollution Control Device | | Emission Point ID |
|---|---|---|---|---|
| **Source ID** | **Description** | **ID** | **Description** | |
| 11A-25078 | Silo #57 | 11A-26071 | Dust Collector | 55-57 |
| 12-25007 | Silo #95 | 12-26030 | Dust Collector | 55-95 |

**[45CSR13, R13-1133, A.1.]**

11.1.2. Silo #57 and Silo #95 shall not exceed the maximum material throughputs per Table 2 - Emission Limits R13-1133A on Page 2 of 3 of the Business Confidential Engineering Evaluation.
**[45CSR13, R13-1133, A.2.]**

11.1.3. The dust collectors installed on the silos (silos #57 and #95) shall be maintained and operated so to provide a guaranteed minimum control efficiency of 99.9%.
**[45CSR13, R13-1133, A.3.]**

11.1.4. Particulate matter (PM) emissions shall not exceed the maximum emission limits shown in Table 11.1.4.

**Table 11.1.4**

| Emission Point ID | Description | Pollution Control | | Emissions | |
|---|---|---|---|---|---|
| | | **Type** | **Efficiency** | **Hourly (lbs/hr)** | **Annual (tons/year)** |
| 55-57 | Silo #57 | Dust Collector | 99.9% | 0.15 | 0.45 |
| 55-95 | Silo #95 | Dust Collector | 99.9% | 0.15 | 0.45 |

**[45CSR13, R13-1133, A.4.]**

11.1.5. Reserved

11.1.6. Reserved

11.1.7. Reserved

11.1.8. Reserved

11.1.9. Reserved.

11.1.10. The Silo 48 shall not exceed the maximum material throughputs per Table 2 - R13-0658B Emission Limits on Page 3 of 3 of the Business Confidential Engineering Evaluation.
**[45CSR13, R13-0658, 4.1.1.]**

11.1.11. The dust collectors [C-1 and C-2] on Silo 48 shall be maintained and operated so to provide a guaranteed

minimum control efficiency of 99.9%. **[45CSR13, R13-0658, 4.1.2.]**

11.1.12. Particulate emissions from Silo 48 shall be controlled by dust collectors [C-1 and C-2] and released through emission points [E-1 and E-2] at a combined rate not to exceed 0.2 pounds per hour or 0.6 tons per year. **[45CSR13, R13-0658, 4.1.3.]**

11.1.13. Reserved.

11.1.14. Reserved.

11.1.15. The permit shall include the production equipment and associated pollution control devices as shown in Table 11.1.15.

**Table 11.1.15**

| **Equipment** | | **Pollution Control Device** | | **Emission Point ID** |
|---|---|---|---|---|
| **Source ID** | **Description** | **ID** | **Description** | |
| Silo 28 | Product Silo | C-28 | (2) Dust Collectors | SC-28 |
| Silo 29 | Product Silo | C-29 | (2) Dust Collectors | SC-29 |
| Silo 33 | Product Silo | C-33 | (2) Dust Collectors | SC-33 |
| Silo 34 | Product Silo | C-34 | (2) Dust Collectors | SC-34 |
| Silo 45 | Product Silo | C-45 | Dust Collector | SC-45 |
| Silo 46 | Product Silo | C-46 | Dust Collector | SC-46 |
| A1-1 | Scale Tank | CA1 | Dust Collector | SC A1-1 |
| A1-2 | Scale Tank | CA1 | Dust Collector | SC A1-2 |

**[45CSR13, R13-0301, A.1.]**

11.1.16. The equipment shown in Table 11.1.15 shall not exceed the maximum material throughputs per Table 2 - R13-0301A Emission Limits on Page 3 of 4 of the Business Confidential Engineering Evaluation. **[45CSR13, R13-0301, A.2.]**

11.1.17. The dust collectors installed on the silos (Silos 28, 29, 33, 34, 45, and 46) shall be maintained and operated so to provide a guaranteed minimum control efficiency of 99.9%. **[45CSR13, R13-0301, A.3.]**

11.1.18. Particulate matter (PM) emissions shall not exceed the maximum emission limits shown in Table 11.1.18.

**Table 11.1.18**

| Source ID | Pollution Control | | Emissions | |
|---|---|---|---|---|
| | **Type** | **Efficiency** | **Hourly (lbs/hr)** | **Annual (tons/year)** |
| Silo 28 | Dust Collector | 99.9% | 0.09 | 0.39 |
| Silo 29 | Dust Collector | 99.9% | 0.09 | 0.39 |
| Silo 33 | Dust Collector | 99.9% | 0.09 | 0.39 |
| Silo 34 | Dust Collector | 99.9% | 0.09 | 0.39 |
| Silo 45 | Dust Collector | 99.9% | 0.09 | 0.39 |
| Silo 46 | Dust Collector | 99.9% | 0.09 | 0.39 |
| A1-1 | Dust Collector | 99.9% | 0.18 | 0.79 |
| A1-2 | Dust Collector | 99.9% | 0.18 | 0.79 |

**[45CSR13, R13-0301.4.]**

11.1.19. The permittee shall not exceed the following maximum hourly and annual emission rates for emission point C-5 at the Resin C Automatic Bagging System:

| Emission Point | Material | Emissions lb/hr | Emissions lb/yr |
|---|---|---|---|
| C-5 | ABS Resin (PM) | 0.003 | 26.28 |

**[45CSR13, R13-1097, A.1]**

11.1.20. The permittee shall not increase production in the ABS resin bagging process as stated on page 12 of 14 of permit application No. 1097.
**[45CSR13, R13-1097, A.2]**

11.1.21. Emissions from the ABS resin dust collector on the (# 3 Resin) railcar loading facility shall not exceed 0.231 lb/hr or 0.675 TPY of particulate.
**[45CSR13, R13-1069, A]**

## 11.2. Monitoring Requirements

11.2.1. To demonstrate compliance with the control efficiency in Sections 11.1.3, 11.1.11 and 11.1.17, in the event visible emissions are observed during operation, the permittee shall conduct any necessary maintenance and repair and replace bags when necessary.
**[45CSR§30-5.1.c.]**

11.2.2. Within 30 days of the end of each calendar quarter, the permittee shall calculate lbs/hr and tons/yr particulate emissions based on material throughput, emission factors (AP-42 or site specific testing) and

control system efficiency to show compliance with Sections 11.1.4, 11.1.12, 11.1.18 and 11.1.19 of this permit.
**[45CSR§30-5.1.c.]**

11.2.3. To demonstrate compliance with 45CSR7 limits for the dust collectors listed in Appendix 3 of this permit, the permittee shall perform a one-time calculation of maximum lb/hr particulate emissions based on material throughput, emission factors (AP-42 or site-specific testing) and control or recovery equipment efficiency.
**[45CSR§30-5.1.c.]**

## 11.3. Testing Requirements

None

## 11.4. Recordkeeping Requirements

11.4.1. For the purpose of determining compliance with Sections 11.1.2 & 11.1.4 of this permit, the permittee shall maintain monthly records of the material transferred into the specified silos.
**[45CSR13, R13-1133, B.4.]**

11.4.2. Reserved.

11.4.3. For the purpose of determining compliance with Sections 11.1.16 and 11.1.18 of this permit, the permittee shall maintain certified monthly records of the material transferred into the specified silos.
**[45CSR13, R13-0301, B.4.]**

11.4.4. For the purpose of determining compliance with Sections 11.1.10 and 11.1.12 of this permit, the permittee shall maintain certified monthly records of the material transferred into Silo 48. Records shall be maintained in accordance with Sections 3.4.2 and 3.5.1. If these records are considered to contain business confidential information as identified in the permit application, then the records may be submitted according to the procedures set forth in 45CSR31 - Confidential Information.
**[45CSR13, R13-0658, 4.4.4.]**

11.4.5. Records of maintenance and repair activities on dust collectors and baghouses shall be maintained which indicate the date and time of the response action, and including maintenance activities or bag changes conducted.
**[45CSR§30-5.1.c.]**

## 11.5. Reporting Requirements

None

## 11.6. Compliance Plan

None

# 12.0 45CSR21 Requirements

## 12.1. Limitations and Standards

12.1.1. The permittee shall be subject to all hourly and annual emission limits set forth by the affected 45CSR13 permits, for each of the sources and associated emission points subject to the requirements of 45CSR21 and identified in Attachment A of R13-2678 (Appendix 2 of this permit).
**[45CSR13, R13-2678, 4.1.1.]**

12.1.2. The permitted sources identified in Attachment A of R13-2678 (Appendix 2 of this permit) and recognized as being subject to 45CSR21 shall comply with all applicable requirements of 45CSR21 – "Regulation to Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds" provided, however, that compliance with any more stringent requirements under the affected 45CSR13 permit identified in Attachment A of R13-2678 (Appendix 2 of this permit), are also demonstrated. The applicable requirements set forth by 45CSR21 shall include, but not be limited to, the following:

a. The permittee shall maintain the aggregated hourly and annual VOC control efficiency of 90% or greater, on a site-wide basis, for all existing sources listed or required to be listed as part of the original facility-wide Reasonably Available Control Measures (RACM) plan, as identified in Attachment A of R13-2678 (Appendix 2 of this permit).

b. On or after May 01, 1996, construction or modification of any emission source resulting in a maximum theoretical emissions (MTE) of VOCs equaling or exceeding six (6) pounds per hour and not listed or required to be listed in the facility-wide RACM plan shall require the prior approval by the Director of an emission control plan that meets the definition of reasonable available control technology (RACT) on a case-by-case basis for both fugitive and non-fugitive VOC emissions from such source. All sources constructed or modified on or after May 01, 1996 shall be subject to the following:

(1) The RACT control plan(s) shall be embodied in a permit in accordance with 45CSR13.

(2) The MTE and associated emission reductions of the constructed or modified source will not be calculated into the site-wide aggregate hourly and annual emissions reduction requirements set forth in Section 12.1.2.a. of this permit.

c. If a modification to an existing source with current MTE below the threshold of six (6) pounds per hour of VOCs causes an increase in the MTE that results in the source exceeding the six (6) pounds per hour threshold for the first time, the source shall be subject to RACT in accordance with Section 12.1.2.b. of this permit.

d. Physical changes to or changes in the method of operation of an existing emission source listed or required to be listed as part of the facility-wide RACM plan, that results in an increase in VOC emissions of any amount, shall require the prior approval by the Director of an emission control plan that meets the definition of RACT on a case-by-case basis for both fugitive and non-fugitive VOC emissions from the source. All sources modified on or after May 01, 1996 shall be subject to the following:

(1) The RACT control plan(s) shall be embodied in a permit in accordance with 45CSR13.

(2) The facility-wide RACM plan shall be modified to include the RACT analysis conducted on the modified source(s).

(3) The MTE and associated emission reductions of the modified source shall be recalculated as part of the site-wide aggregate hourly and annual emissions reduction requirements to demonstrate

compliance with the minimum 90% reduction rate as set forth in Section 12.1.2.a. of this permit.

e. In the event the facility-wide RACM plan is modified to delete an existing emission source, and any associated pollution control equipment, due to the source being permanently removed from service, or reassigned to service not subject to the requirements of 45CSR21-40, the MTE shall be recalculated to demonstrate that the 90% facility-wide VOC reduction requirement set forth in Section 12.1.2.a. of this permit is still being met. In the event such a modification results in the site-wide aggregate hourly and annual emissions reduction being recalculated to a rate less than 90%, the RACM plan shall be revised to include all new and/or modified sources and their associated control technologies constructed on or after May 01, 1996, in order to meet the requirements set forth in Section 12.1.2.a. of this permit.

f. In the event a source and associated emission point identified in Attachment A of R13-2678 (Appendix 2 of this permit) is subject to the New Source Performance Standards (NSPS) of 40CFR60, the National Emission Standards for Hazardous Air Pollutants (NESHAP) of 40CFR61, or the Maximum Achievable Control Technology (MACT) standards of 40CFR63, then compliance with such requirements as defined in the affected 45CSR13 permit shall demonstrate compliance with the RACT requirements set forth in this permit.

**[45CSR13, R13-2678, 4.1.2.]**

12.1.3. (i) No owner or operator subject to 45CSR21 shall build, erect, install, or use any article, machine, equipment, process, or other method the use of which conceals emissions that would otherwise constitute non-compliance with an applicable regulation.

(ii) 45CSR§21-7.1 includes, but is not limited to, the use of gaseous diluents to achieve compliance, and the piecemeal carrying out of an operation to avoid coverage by a regulation that applies only to operations larger than a specified size.

(iii) No owner or operator subject to this regulation shall discharge or dispose of VOCs or material containing VOCs to surface impoundments, pits, wastewater treatment facilities, or sewers for the purpose of circumventing any provision or requirement of 45CSR21.

**[45CSR§21-7]**

12.1.4. Variance. -- If the provisions of 45CSR21 cannot be satisfied due to repairs made as the result of routine maintenance or in response to the unavoidable malfunction of equipment, the Director may permit the owner or operator of a source subject to this regulation to continue to operate said source for periods not to exceed 10 days upon specific application to the Director. Such application shall be made prior to the making of repairs and, in the case of equipment malfunction, within 24 hours of the equipment malfunction. Where repairs will take in excess of 10 days to complete, additional time periods may be granted by the Director. 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. During such time periods, the owner or operator shall take all reasonable and practicable steps to minimize VOC emissions.

**[45CSR§21-9.3]**

## 12.2. Monitoring Requirements

12.2.1. The permittee shall implement and maintain leak detection and repair (LDAR) programs for the reduction of fugitive VOC emissions in all manufacturing process units subject to 45CSR§21-40 producing a product or products intermediate or final, in excess of 1,000 megagrams (1,100 tons) per year in accordance with the applicable methods and criteria of Subpart JJJ as the approved alternative LDAR procedure. This requirement shall apply to all units applicable to 45CSR21 and identified in Attachment A of R13-2678 (Appendix 2 of this permit) irrespective of whether or not such units produce as intermediates or final products, substances on the lists contained with 40CFR60, 40CFR61, or 40CFR63.

**[45CSR13, R13-2678, 4.2.1. State-Enforceable only]**

## 12.3. Testing Requirements

12.3.1. Manufacturing process units may be exempted upon written request of the permittee to the Director. Exempted units are exempted from the frequency of testing as described in 45CSR§21-37, however, LDAR testing of this unit or certification of emission using approved fugitive emission factors will be required every three years, or upon request by the Director or his duly authorized representative. Waiver or scheduling of LDAR testing every three years may be granted by the Director if written request and justification are submitted by the permittee. Units exempted from LDAR monitoring as required by 45CSR§21-37, are not exempted from testing which may be required under any other applicable State or Federal regulations, orders, or permits. The Director may periodically require verifications by the permittee that maintenance and repair procedures associated with approved exemptions are continued and practiced.
**[45CSR13, R13-2678, 4.3.1. State-Enforceable only]**

## 12.4. Recordkeeping Requirements

12.4.1. Unless granted a variance pursuant to 45CSR§21- 9.3 (Section 12.1.4 of this permit), or as approved by the Director as part of a required Start-up, Shutdown, and Malfunction (SSM) Plan mandated under 40 C.F.R. § 63.6(e) or another applicable Section of 40CFR63, the owner or operator of the facility shall operate all emission control equipment listed in Attachment A of R13-2678 as part of the facility-wide control efficiency plan at all times the facilities are in operation or VOC emissions are occurring from these sources or activities. In the event of a malfunction, and a variance has not been granted, the production unit shall be shutdown or the activity discontinued as expeditiously as possible. The permittee shall comply with 45CSR§21- 9.3 (Section 12.1.4 of this permit) with respect to all periods of non-compliance with the emission limitations set forth in the affected 45CSR13 permits and the emissions reduction requests set forth in the facility-wide control efficiency plan resulting from unavoidable malfunctions of equipment.
**[45CSR13, R13-2678, 4.4.4]**

12.4.2. (i) Each owner or operator of a source subject to 45CSR§21-5 shall maintain up-to-date, readily accessible records of any equipment operating parameters specified to be monitored in the applicable section of 45CSR21 as well as up-to-date, readily accessible records of periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. These records shall be maintained for at least 3 years. The Director may at any time require a report of these data. Periods of operation during which the parameter boundaries established during the most recent performance tests are exceeded are defined as follows:

A. For thermal incinerators, all 3-hour periods of operation in which the average combustion temperature was more than 28°C (50°F) below the average combustion temperature during the most recent performance test that demonstrated that the facility was in compliance.

B. For catalytic incinerators, all 3-hour periods of operation in which the average temperature of the process vent stream immediately before the catalyst bed is more than 28°C (50°F) below the average temperature of the process vent stream during the most recent performance test that demonstrated that the facility was in compliance.

C. For carbon adsorbers, all 3-hour periods of operation during which the average VOC concentration or reading of organics in the exhaust gases is more than 20 percent greater than the average exhaust gas concentration or reading measured by the organics monitoring device during the most recent determination of the recovery efficiency of the carbon adsorber that demonstrated that the facility was in compliance.

(ii) A log of operating time for the capture system, control device, monitoring equipment, and the associated source; and

(iii) A maintenance log for the capture system, control device, and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of any outages.

**[45CSR§21-5.3.]**

## 12.5. Reporting Requirements

12.5.1. The permittee shall submit to the DAQ a plan for complete, facility-wide implementation of RACT requirements within one hundred eighty (180) days of notification by the Director that a violation of the National Ambient Air Quality Standards (NAAQS) for ozone (that were in effect on or before May 01, 1996) has occurred. Such plan shall included those sources listed in Attachment A of R13-2678 (Appendix 2 of this permit) as part of the site-wide control efficiency requirement and may contain an update of existing RACT analyses. Full implementation of such plan shall be completed within two (2) years of approval of the RACT plan by the Director.
**[45CSR13, R13-2678, 4.5.1]**

12.5.2. Reports of excess emissions. -- Except as provided in 45CSR§21-9.3 (Section 12.1.4 of this permit), the owner or operator of any facility containing sources subject to 45CSR§21-5 shall, for each occurrence of excess emissions expected to last more than 7 days, within 1 business day of becoming aware of such occurrence, supply the Director by letter with the following information:

a. The name and location of the facility;
b. The subject sources that caused the excess emissions;
c. The time and date of first observation of the excess emissions; and
d. The cause and expected duration of the excess emissions.
e. For sources subject to numerical emission limitations, the estimated rate of emission (expressed in the units of the applicable emission limitation) and the operating data and calculations used in determining the magnitude of the excess emissions; and
f. The proposed corrective actions and schedule to correct the conditions causing the excess emissions.

**[45CSR§21-5.2.]**

## 12.6. Compliance Plan

None

## 13.0 45CSR27 Requirements

### 13.1. Limitations and Standards

13.1.1. The permittee shall be subject to all hourly and annual emission limits set forth by the affected 45CSR13 permits, for each of the sources and associated emission points subject to the requirements of 45CSR27 and identified in Attachment A of R13-2678 (Appendix 2 of this permit).
**[45CSR13, R13-2678, 5.1.1, State-Enforceable only.]**

13.1.2. The permitted sources identified in Attachment A of R13-2678 (Appendix 2 of this permit) and recognized as being subject to 45CSR27 shall comply with all applicable requirements of 45CSR27 – "To Prevent and Control the Emissions of Toxic Air Pollutants" provided, however, that compliance with any more stringent requirements under the affected 45CSR13 permit identified in Attachment A of R13-2678 (Appendix 2 of this permit), are also demonstrated. The applicable requirements set forth by 45CSR27 shall include, but not be limited to, the following:

a. The permittee shall employ the best available technology (BAT) for the purpose of reducing toxic air pollutants (TAP) associated with the applicable sources and emission points identified in Attachment A of R13-2678 (Appendix 2 of this permit).

b. The permittee shall employ BAT for the purpose of preventing and controlling fugitive emissions of TAP to the atmosphere as a result of routine leakage from those sources and their associated equipment identified in Attachment A of R13-2678 (Appendix 2 of this permit) as operating in TAP service.

**[45CSR27; 45CSR13, R13-2678, 5.1.2; State-Enforceable only]**

13.1.3. In the event a source and associated emission point identified in Attachment A of R13-2678 (Appendix 2 of this permit) are subject to the MACT standards of 40CFR63, then compliance with the applicable MACT requirements identified in the affected 45CSR13 permit shall demonstrate compliance with the BAT requirements set forth in Section 13.1.2 of this permit.
**[45CSR27; 45CSR13, R13-2678, 5.1.3; State-Enforceable only]**

13.1.4. Except as provided in 45CSR§§27-3.2 and 3.3, the owner or operator of a plant that discharges or may discharge a toxic air pollutant into the open air in excess of the amount shown in the Table A of 45CSR27 shall employ BAT at all chemical processing units emitting the toxic air pollutant: Provided, that any source or equipment specifically subject to a federal regulation or standard shall not be required to comply with provisions more stringent than such regulation or standard.
**[45CSR§27-3.1; State-Enforceable only]**

13.1.5. A BAT program for a plant containing multiple chemical processing units or emission sources may, for each chemical, consider the overall effectiveness of emissions control measures within a unit or the plant. All BAT programs shall fully consider the additive or cumulative health and environmental impacts of multiple pollutant and multiple unit emissions.
**[45CSR§27-3.2; R13-1009, B.2; State-Enforceable only]**

13.1.6. All chemical processing units shall be properly instrumented to alert the operator of process upsets, leaks, and other abnormal discharges of toxic air pollutants into the air and the operator shall record all such incidents and the associated emissions estimated from direct measurements of toxic air pollutant concentration and/or calculations using other process measurements.
**[45CSR§27-3.4; R13-1009, B.2; State-Enforceable only]**

13.1.7. All owners and operators subject to the requirements of this rule shall, by application of BAT, prevent and control fugitive emissions to the air of toxic air pollutants as a result of leakage from equipment in toxic air pollutant service including but not limited to, pump seals, compressor seals, valves, sampling connections, open-ended lines, safety relief valves, and flanges. In no event shall any equipment standard, program, or work practice less stringent than required under 40CFR61, Subpart V be deemed to represent BAT for control of toxic air pollutant emissions: Provided, that any source or equipment specifically subject to a federal regulation or standard shall not be required to comply with provisions more stringent than such federal regulation and standard. Equipment to be used in toxic air pollutant service installed after the effective date of this rule shall, to the maximum extent possible, be designed and operated so as to prevent leaks of toxic air pollutants.
**[45CSR§27-4.1; R13-1009, B.2; R13-2094, B.5; State-Enforceable only]**

13.1.8. In quantifying plant or facility emissions of a toxic air pollutant pursuant to determining the applicability of 45CSR27 under Section 3.1 (Section 13.1.4 of this permit), emissions from potentially leaking equipment components which handle streams containing the toxic air pollutant shall be included. Such quantification shall be in accordance with estimation methods approved by the Director.
**[45CSR§27-4.2; State-Enforceable only]**

13.1.9. Owners and operators of chemical processing units or facilities subject to the requirements of 45CSR27 shall prevent and control working and filling losses of toxic air pollutants from tanks by routing such tank emissions to BAT control devices. The Director may approve the use of floating roof storage tanks as BAT, provided that such tanks are designed and operated in a manner which minimizes toxic air pollutant emissions taking into consideration the toxic air pollutant emission rate, tank size, and control efficiency associated with such tanks. On a case-by-case basis, the Director may exempt very small process or storage tanks or tanks storing material mixtures containing low mass fractions of toxic air pollutants from the BAT requirements taking into consideration the actual level of emissions control and/or the toxic air pollutant emission rate from the tank.
**[45CSR§27-5.1; 45CSR13, R13-2094, B.5; State-Enforceable only]**

13.1.10. Owners and operators of chemical processing units and/or wastewater treatment systems subject to 45CSR27 shall employ BAT to remove and control or destroy toxic air pollutants from wastewater at the source and/or apply BAT at the wastewater treatment plant to prevent or control the discharge to toxic air pollutants resulting from air stripping or evaporation: Provided, that this provision shall not be more stringent than any specifically applicable federal regulation or standard.
**[45CSR§27-6.1; State-Enforceable only]**

13.1.11. In quantifying total plant or facility emissions of a toxic air pollutant pursuant to determining the applicability of 45CSR7 under 45CSR§27-3.1 (Section 13.1.4 of this permit), emissions of a toxic air pollutant resulting from the discharge of the toxic air pollutant to wastewater streams and the subsequent treatment of wastewater shall be included. Emissions shall be determined by a method specified or approved by the Director.
**[45CSR§27-6.2; State-Enforceable only]**

13.1.12. Owners and operators of chemical processing units or facilities subject to the requirements of 45CSR27 shall employ BAT to prevent or control toxic air pollutant discharges in the loading and unloading of railcars and tank trucks with toxic air pollutants or material mixtures containing toxic air pollutants.
**[45CSR§27-7.1; State-Enforceable only]**

## 13.2. Monitoring Requirements

13.2.1. The permittee shall implement and maintain a LDAR program for the applicable sources and emission points identified in Attachment A of R13-2678 (Appendix 2 of this permit) in order to reduce the emissions

of TAP in accordance with the requirements of 40CFR63, Subpart H - National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks. Compliance with 40CFR63, Subpart H shall be considered demonstration of compliance with the provisions of 45CSR§27-4. - Fugitive Emissions of Toxic Air Pollutants.
**[45CSR27-4, State-Enforceable Only] [45CSR13, R13-2678, 5.2.1]**

13.2.2. In the event a source and associated emission point identified in Attachment A of R13-2678 (Appendix 2 of this permit) are subject to the MACT standards of 40CFR63, then compliance with any applicable LDAR program set forth by the MACT and identified in the affected 45CSR13 permit shall demonstrate compliance with the monitoring requirements set forth in R13-2678.
**[45CSR13, R13-2678, 5.2.2; State - Enforceable only]**

## 13.3. Testing Requirements

13.3.1. In the event a source and associated emission point identified in Attachment A of R13-2678 (Appendix 2 of this permit) are subject to the MACT standards of 40CFR63, then compliance with the applicable LDAR testing requirements set forth by the MACT and identified in the affected 45CSR13 permit shall demonstrate compliance with the LDAR testing requirements set forth in R13-2678.
**[45CSR13, R13-2678, 5.3.1; State - Enforceable only]**

## 13.4. Recordkeeping Requirements

13.4.1. The permittee shall maintain records of the results of all monitoring and inspections, emission control measures applied and the nature, timing, and results of repair efforts conducted in accordance to 45CSR§27-10 and set forth in the affected 45CSR13 permits as identified in Attachment A of R13-2678 (Appendix 2 of this permit).
**[45CSR13, R13-2678, 5.4.4, State - Enforceable only]**

13.4.2. Written records shall be maintained that identify all pumps, compressors, pressure relief valves, valves, sampling connections, open-ended lines, and flanges of a chemical processing unit that are in toxic air pollutant service. These records shall record the results of all monitoring and inspections, emissions control measures applied and the nature, timing, and results of repair efforts.
**[45CSR§27-10.3; 45CSR13, R13-2094, B.5; State - Enforceable only]**

## 13.5. Reporting Requirements

13.5.1. For the purpose of demonstrating compliance with the requirements set forth in 45CSR27-10.4., the permittee shall file a written report with the Director documenting the emissions to the air of any toxic air pollutant resulting from an abnormal release or spill in excess of the following thresholds:

a. Ethylene oxide - one (1) pound

b. Vinyl chloride - one (1) pound

c. Acrylonitrile - ten (10) pounds

d. Butadiene - ten (10) pounds

e. All other toxic air pollutants - fifty (50) pounds

**[45CSR§27-10; 45CSR13, R13-2678, 5.5.1; State-Enforceable Only]**

13.5.2. Any period of failure or inoperability of air pollution control equipment required by 45CSR27 shall be reported to the Director not later than 24-hours after the owner/operator has knowledge of such failure. **[45CSR§27-10.5; State-Enforceable only]**

## 13.6. Compliance Plan

None

## 14.0 Reciprocating Internal Combustion Engines [Emission Point ID(s):EG1, 00H-01, 00H-02 & 00H-03]

### 14.1. Limitations and Standards

14.1.1. Emergency generator, EG1, shall be a permanently installed Caterpillar 3406 diesel-fired electric generator with a maximum rating of 483 horsepower.
**[45CSR13, R13-2486, A.1] [EG-1]**

14.1.2. Emergency generator, EG1, shall be limited to a maximum operating schedule of 500 hours per year.
**[45CSR13, R13-2486, A.2] [EG-1]**

14.1.3. The diesel-fired engine used to power EG1 shall be fueled only with Grade No. 2 Diesel Fuel.
**[45CSR13, R13-2486, A.4] [EG-1]**

14.1.4. § 63.6595 When do I have to comply with this subpart?

(a) *Affected sources.* (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][EG-1, 00H-01 & 00H-02]**

If you have an existing stationary SI 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 October 19, 2013.

**[40 C.F.R. §63.6595][00H-03]**

14.1.5. § 63.6602 What emission limitations must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?

If you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart which apply to you.

Table 2c to Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE ≤500 HP Located at a Major Source of HAP Emissions

As stated in §§**63**.6600, **63**.6602, and **63**.6640, you must comply with the following requirements for existing compression ignition stationary RICE located at a major source of HAP emissions and existing spark ignition stationary RICE ≤500 HP located at a major source of HAP emissions:

| For each . . . | You must meet the following requirement, except during periods of startup . . . | During periods of startup you must . . . |
|---|---|---|
| 1. Emergency stationary CI RICE and black start stationary CI RICE.[1] | a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2]<br>b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;<br>c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3] | 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, after which time the non-startup emission limitations apply.[3] |

**[EG-1, 00H-01 & 00H-02]**

| For each . . . | You must meet the following requirement, except during periods of startup . . . | During periods of startup you must . . . |
|---|---|---|
| 6. Emergency stationary SI RICE and black start stationary SI RICE.[1] | a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2] | |
| | b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first; | |
| | c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3] | |

**[00H-03]**

[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 this subpart, 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 §63.6625(i) in order to extend the specified oil change requirement in Table 2c of this subpart.

[3]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

**[40 C.F.R. §63.6602] [EG-1, 00H-01, 00H-02 & 00H-03]**

14.1.6. Permittee shall be in continuous compliance with operating limitations in 14.1.5 according to 40 C.F.R. §§63.6605 & 63.6640.
**[40 C.F.R. §§63.6605 & 63.6640] [EG-1, 00H-01, 00H-02 & 00H-03]**

14.1.7. Permittee shall comply with Table 8 of 40CFR63, Subpart ZZZZ, except per 40 C.F.R. §63.6645(a)(5), the following do not apply: §§ 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b)-(e), (g) and (h).
**[40 C.F.R. §63.6665] [EG-1, 00H-01, 00H-02 & 00H-03]**

## 14.2. Monitoring Requirements

14.2.1. To demonstrate compliance with 14.1.2, the permittee shall monitor operating hours of the Emergency generator EG1 on daily basis.
**[45CSR§30-5.1.c] [EG-1]**

14.2.2. Permittee shall comply with monitoring requirements of 40 C.F.R. §63.6625(e), (f), (h) and (i).
**[EG-1, 00H-01 & 00H-02]**
Permittee shall comply with monitoring requirements of 40 C.F.R. §63.6625(e), (f), (h) and (j).
**[00H-03]**
**[40 C.F.R. §63.6625]**

## 14.3. Testing Requirements

None

## 14.4. Recordkeeping Requirements

14.4.1. For the purpose of determining compliance with permit limits based on the emergency generator operation as described in Specific Requirements 14.1.2, the permittee shall maintain a daily record of the hours the generator is operated and all maintenance/repair activity performed. Compliance with the annual operating limit shall be determined using a rolling yearly total. All records are to be maintained on site for a period of not less than five (5) years. At the request of the Director or his/her duly authorized representative, records shall be certified by a "Responsible Official" and shall be made available to the Director or his/her duly authorized representative.
Records shall be deemed to be "maintained on site" if they are kept in an electronic format off-site, but are accessible from the site.
**[45CSR13, R13-2486, A.3 and B.2]**

14.4.2. For the purpose of determining compliance with the Requirement 14.1.3, the permittee shall keep records of type of fuel purchased for use in the emergency generator EG1.
**[45CSR§30-5.1.c] [EG-1]**

14.4.3. Permittee shall comply with recordkeeping requirements of 40 C.F.R. §63.6655 except 40 C.F.R. §63.6655(c).
**[40 C.F.R. §63.6655] [EG-1, 00H-01, 00H-02 & 00H-03]**

## 14.5. Reporting Requirements

14.5.1. Permittee shall comply with reporting requirements of Footnote 1 of Table 2c of 40 C.F.R. 63 Subpart ZZZZ.
**[40 C.F.R. 63 Subpart ZZZZ] [EG-1, 00H-01, 00H-02 & 00H-03]**

## 14.6. Compliance Plan

None.

**APPENDIX 1**

## CERTIFICATION OF DATA ACCURACY

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

Signature[1] ..... .....
(Please use blue ink) Responsible Official or Authorized Representative Date

Name and Title ..... .....
(Please print or type) Name Title

Telephone No. ..... Fax No. .....

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[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 USEPA); or

d. The designated representative delegated with such authority and approved in advance by the Director.