*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:*

**E. I. duPont de Nemours and Company**
**Washington Works**
**Acetal Resin Production (Part 3 of 14)**
**R30-10700001-2012**

*John A. Benedict*
*Director*

*Issued: July 10, 2012 • Effective: July 24, 2012*
*Expiration: July 10, 2017 • Renewal Application Due: January 10, 2017*

Permit Number: **R30-10700001-2012**

Permittee: **E. I. duPont de Nemours and Company**

Facility Name: **Washington Works**

Business Unit: **Acetal Resin Production (Part 3 of 14)**

Mailing Address: **P.O. Box 1217, Washington, WV 26181-1217**

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*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.*

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| | |
|---|---|
| Facility Location: | Washington, Wood County, West Virginia |
| Mailing Address: | P.O. Box 1217, Washington, WV 26181-1217 |
| Telephone Number: | (304) 863-4240 |
| Type of Business Entity: | Corporation |
| Facility Description: | Polyacetal Production |
| SIC Codes: | 2821 |
| UTM Coordinates: | 442.3767 km Easting • 4,346.8331 km Northing • Zone 17 |

Permit Writer: Mike Egnor

*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.*

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

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

## 1.1. Emission Units

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Control Device |
|---|---|---|---|---|
| | | | | |
| ***Formaldehyde*** | | | | |
| DABS | DAB-E | "A" Methanol Storage Tank | 1988 | DAB-C Internal Floating Roof |
| DACS | DAC-E | "B" Methanol Storage Tank | 1988 | DAC-C Internal Floating Roof |
| DABS/DACS | DAG-E | Methanol Tank Truck Unloading for DAB and DAC | 1990 | DAG-C Tank Farm Vent Scrubber |
| DADS | DAD-E | Methanol Feed Filter Changes for the Formaldehyde Plant | 1988 | None |
| DAES | DAG-E | "A" Formaldehyde Day Tank | 1988 | DAG-C Tank Farm Vent Scrubber |
| DAFS | DAG-E | "B" Formaldehyde Day Tank | 1988 | DAG-C Tank Farm Vent Scrubber |
| DAHS | DAG-E | Dilute Formaldehyde Storage Tank Formaldehyde Plant | 1988 | DAG-C Tank Farm Vent Scrubber |
| DANS | DAN-E | Formaldehyde Plant Cooling Tower | 1988 | DAN-C Drift Eliminator |
| DAOS | DAN-E | Heat Exchanger for Formaldehyde Cooling in Product Recovery | 1988 | None |
| DAPS | DAP-E | Cooling Tower Sulfuric Acid Storage Tank | 2001 | None |
| DAQS | DAQ-E | Formaldehyde Reactor Train #1 | 1988/1996 | DBH-P, DBI-P T1/T2 Product Recovery – Inherent Process Devices DBJ-C Catalytic Converter |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Control Device |
|---|---|---|---|---|
| DARS | DAR-E | Formaldehyde Reactor Train #2 | 1988/1996 | DBH-P, DBI-P T1/T2 Product Recovery – Inherent Process Devices DBJ-C Catalytic Converter |
| DASS | DAS-E | Formaldehyde Reactor Train #3 | 1988/1996 | DBH-P, DBI-P T1/T2 Product Recovery – Inherent Process Devices DBJ-C Catalytic Converter |
| DATS | DAT-E | Cooling Tower Bleach Storage Tank | 2001 | None |
| DAUS | DAU-E | Cooling Tower Scale Inhibitor Storage Tank | 1988 | None |
| DBAS | DBA-E | Boiler Water Treatment Additive Storage Tank | 1988 | None |
| DBHS/DBIS | DBJ-E | T-2 and T-1 Absorber Product Recovery | 1988 | DBJ-C Catalytic Converter |
| DBKS | DBK-E | Dowtherm Storage Tank | 1988 | DBK-C Condenser |
| DBLS | DBL-E | Recycle Methanol Tank | 1988 | None |
| DBMS | DBM-E | Oxygen Analyzer | 1988 | None |
| DBOS | DAG-E | Formaldehyde Tank Truck Unloading | 2002 | DAG-C Tank Farm Vent Scrubber |
| DBPS | DBK-E | Dowtherm Truck Unloading | 1988 | None |
| DPBS | DPB-E | Formaldehyde Plant Process Sump | 1988 | None |
| DPCS | DPC-E | Formaldehyde Tank Farm Sump | 1988 | None |
| HAIS | DAB-E | “A” Methanol Tank Clean Out and Inspection | 1988 | None |
| HAJS | DAC-E | “B” Methanol Tank Clean Out and Inspection | 1988 | None |
| HAKS | DAG-E | “A” Formaldehyde Day Tank Cleaning and Inspection | 1988 | DAG-C Tank Farm Vent Scrubber |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Control Device |
|---|---|---|---|---|
| HALS | DAG-E | "B" Formaldehyde Day Tank Cleaning and Inspection | 1988 | DAG-C Tank Farm Vent Scrubber |
| HAMS | DAG-E | "F" Formaldehyde Day Tank Cleaning and Inspection | 1988 | DAG-C Tank Farm Vent Scrubber |
| HAOS | DBJ-E | #1 Reactor GC Analyzer | 1988 | DBJ-C Catalytic Converter |
| HAPS | DBJ-E | #2 Reactor GC Analyzer | 1988 | DBJ-C Catalytic Converter |
| HAQS | DBJ-E | #3 Reactor GC Analyzer | 1988 | DBJ-C Catalytic Converter |
| HTAS | HTA-E | Reactor Catalyst Change Out | 1997 | HTA-C Baghouse |
| D02S | D02-E | "B" Formaldehyde Day Tank RV Change | 1988 | None |
| D04S | D04-E | Dilute Formaldehyde Storage RV Change | 1988 | None |
| D09S | D09-E | Dowtherm Storage Tank RV Change | 1988 | None |
| D70S | D70-E | "A" Formaldehyde Day Tank RV Change | 1988 | None |
| ***Polymerization*** | | | | |
| DAL | DOME/HZZE | "E" Formaldehyde Tank | 2011 | DOMC/HZZC |
| DDO | DOME/HZZE | Recycle Tank | 1969 | DOMC/HZZC |
| DEA | DAKE | Hold Up Tank | 1958 | DAKC Scrubber |
| DEB | DOME/HZZE | Feed Tank | 2011 | DOMC/HZZC |
| DEC | DOME/HZZE | Storage Tank | 1959 | DOMC/HZZC |
| DFE | DOME/HZZE | Reactor Column/Extraction Column | Pre-June 1990 | DOMC/HZZC Boiler/Flare |
| HAN | DOUE | Tank Clean-Out | 1980 | DAKC Scrubber |
| DCA | DOME/HZZE | Decanter Tank | 1959 | DOMC/HZZC Boiler/Flare |
| DCB | DCBE | Recycle Filter | 1959 | None |
| DCC | DCCE | Recycle Filter | 1959 | None |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Control Device |
|---|---|---|---|---|
| DCD | DCDE | Recycle Filter | 1959 | None |
| DCF | DOME/HZZE | Recycle Solvent Tank | 1965 | DOMC/HZZC Boiler/Flare |
| HAR | DCFE | Recycle Tank Clean-Out | 1965 | None |
| DCG | DOME/HZZE | Storage Tank | 1965 | DOMC/HZZC Boiler/Flare |
| DCE | DCEE | Solvent Decanter Tank | 1959 | None |
| DCQ | DCQE | Solvent Column Filter | 1959 | None |
| DGK | DGKE | #1 PC Lump Pot | 1959 | None |
| DGL | DGLE | #2 PC Lump Pot | 1959 | None |
| DGM | DGME | #3 PC Lump Pot | 1959 | None |
| HAS | DOUE | Solvent Storage Tank Clean-Out & Purge | 1965 | None |
| DCO | DCOE | South Solvent Tails Filter | 1959 | None |
| DCP | DCPE | North Solvent Tails Filter | 1959 | None |
| DCR | DCRE | Solvent Feed Filter (North) | 1959 | None |
| DCS | DCSE | Solvent Feed Filter (South) | 1959 | None |
| DCH | DCYE | A Gel Bed Regeneration | 1959 | DCMC Condenser |
| DCI | DCYE | B Gel Bed Regeneration | 1959 | DCMC Condenser |
| DCJ | DCYE | C Gel Bed Regeneration | 1959 | DCMC Condenser |
| DCL | DCYE | Solvent Column | 1959 | None |
| DCV | DCYE | Gel Bed Regeneration Condenser | 1959 | None |
| DDF | DCYE | Column Decanter Tank | 1959 | None |
| DDG | DCYE | Column U/L Tank | 1959 | None |
| HAT | DCYE | Column Clean-Out and Purge | 1959 | None |
| DDE | DDEE | Gel Regeneration Recovery Tank | 1959 | None |
| DFH | DDEE | Column $H_2O$ Analyzer | 1959 | None |
| DDP | DDPE | Storage Tank | 1965 | None |
| DDW | DOME/HZZE | LBR Column Feed Tank | 1959 | DOMC/HZZC Boiler/Flare |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Control Device |
|---|---|---|---|---|
| DES | DESE | Feed Tank | 1988 | None |
| DFI | DFIE | Weak $CH_2O$ TT Loading | 1965 | None |
| HAV | DFIE | TT Loading from Recycle Tank | 1965 | None |
| HAW | DFIE | TT Loading from Recycle Tank | 1965 | None |
| HAX | DFIE | TT Loading from Storage Tank | 1965 | None |
| HAY | DFIE | TT Loading from Storage Tank | 1965 | None |
| HAZ | DFIE | TT Loading from Recycle Tank | 1965 | None |
| DHU | DHUE | Reactor Sampling | 1959 | None |
| DHV | DHVE | Reactor Sampling | 1959 | None |
| DHW | DHWE | Reactor Sampling | 1959 | None |
| DHY | DHYE | Catalyst Storage Tank | 1959 | None |
| DHX | DHZE | Catalyst Hold-Up Tank | 1959 | None |
| DHZ | DHZE | Catalyst Mix Tank | 1959 | None |
| HBC | DIEE | Isolation Change-Out Vent | 1959 | None |
| HBL | DIEE | Isolation Change-Out Vent | 1995 | None |
| DIN | DINE | Brine Tank | 1996 | None |
| DIS | DISE | Brine Tank | 1959 | None |
| DJX | DJXE | Brine TT Loading | 1959 | None |
| DJY | DJYE | Brine TT Loading | 1959 | None |
| DJZ | DJZE | Brine TT Loading | 1959 | None |
| DLX | DLXE | Sparger Lump Pot | 1963 | None |
| DMH | DOME/HZZE | Recycle AA Storage Tank | 2000 | DOMC/HZZC Boiler/Flare |
| DMI | DMIE | Refined AA Tank | 1958 | None |
| DML | DMLE | AR Column | 1989 | DMLC Vapor Vent Condenser |
| DMU | DMUE | Vaporizer Boilout | 1959 | None |
| DMV | DMVE | Vaporizer Boilout | 1981 | None |
| DNC | DNCE | Sparger Lump Pot | 1981 | None |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Control Device |
|---|---|---|---|---|
| DOH | DOHE | Oil Storage Tank | 1972, modified 1988 | None |
| DOM | DOME | CFB Liquid – VOCs | 2001 | DOMC Boiler |
| GBQ | DOME | CFB Liquids – Particulate | 2001 | DOMC Boiler |
| GBR | DOME | CFB Liquid – CO | 2001 | DOMC Boiler |
| GBS | DOME | CFB Liquid – $NO_x$ | 2001 | DOMC Boiler |
| GBT | DOME | CFB Liquid – $SO_2$ | 2001 | DOMC Boiler |
| GBU | DOME/HZZE | Column | 1988 | DOMC/HZZC Boiler/Flare |
| DDJ | DOME/HZZE | Purge Tank | 1959 | DOMC/HZZC Boiler/Flare |
| DDL | DOME/HZZE | HBR Column Vent | 1988 | DOMC/HZZC Boiler/Flare |
| DDS | DOME/HZZE | NLBR Column | 1963, modified post-Dec. 1983 | DOMC/HZZC Boiler/Flare |
| DDZ | DOME/HZZE | NLBR Column Distillate Receiver | 1963, modified post-Dec. 1983 | DOMC/HZZC Boiler/Flare |
| DEP | DOME/HZZE | LPD Vent | 1988 | DOMC/HZZC Boiler/Flare |
| DEU | DOME/HZZE | HPD Vent | 1988 | DOMC/HZZC Boiler/Flare |
| DEW | DOME/HZZE | Column | 1959, modified post-Dec. 1983 | DOMC/HZZC Boiler/Flare |
| DEZ | DOME/HZZE | Hold Up Tank | 1959, modified post-July 1984 | DOMC/HZZC Boiler/Flare |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Control Device |
|---|---|---|---|---|
| DFA | DOME/HZZE | Distillate Receiver | 1959 | DOMC/HZZC Boiler/Flare |
| DFB | DOME/HZZE | Neutral Concentrator Feed Tank | 1959, modified post-July 1984 | DOMC/HZZC Boiler/Flare |
| DGQ | DOME/HZZE | #1 P/PC System | Pre-June 1990 | DOMC/HZZC Boiler/Flare |
| DGR | DOME/HZZE | #2 P/PC System | Pre-June 1990 | DOMC/HZZC Boiler/Flare |
| DGS | DOME/HZZE | #3 P/PC System | Pre-June 1990 | DOMC/HZZC Boiler/Flare |
| DGV | DOME/HZZE | PC Steamout Condenser | Pre-Dec. 1983 | DOMC/HZZC Boiler/Flare |
| DGX | DOME/HZZE | Monomer Absorber | Pre-Dec. 1983 | DOMC/HZZC Boiler/Flare |
| DHS | DOME/HZZE | Poly. Steamout Decanter Tank | 1959 | DOMC/HZZC Boiler/Flare |
| DIC | DOME/HZZE | Slurry Feed Tank | 1959 | DOMC/HZZC Boiler/Flare |
| DIE | DOME/HZZE | Isolation Vent | 1959, modified 1980 | DOMC/HZZC Boiler/Flare |
| DIF | DOME/HZZE | Isolation Liquid Receiver Tank | 1959 | DOMC/HZZC Boiler/Flare |
| DJO | DOME/HZZE | D/D U/L Tank | 1959 | DOMC/HZZC Boiler/Flare |
| DJP | DOME/HZZE | D/D L/L Tank | 1959 | DOMC/HZZC Boiler/Flare |
| DJQ | DOME/HZZE | D/D U/L Tank | 1995 | DOMC/HZZC Boiler/Flare |
| DJR | DOME/HZZE | D/D L/L Tank | 1995 | DOMC/HZZC Boiler/Flare |
| DJT | DOME/HZZE | Dryer Blower Loop | 1959, modified 1968 | DOMC/HZZC Boiler/Flare |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Control Device |
|---|---|---|---|---|
| DJU | DOME/HZZE | Dryer Blower Loop | 1995 | DOMC/HZZC Boiler/Flare |
| DJV | DOME/HZZE | Conveyor Blower | 1959 | DOMC/HZZC Boiler/Flare |
| DJW | DOME/HZZE | Conveyor Blower | 1979 | DOMC/HZZC Boiler/Flare |
| DLM | DOME/HZZE | Sparger | 1963 | DOMC/HZZC Boiler/Flare |
| DLR | DOME/HZZE | Sparger | 1981 | DOMC/HZZC Boiler/Flare |
| DMM | DOME/HZZE | Distillation Column | 1989 | DOMC/HZZC Boiler/Flare |
| DMQ | DOME/HZZE | Polymer Conveyor Vent | Mid 1980's | DOMC/HZZC Boiler/Flare |
| DMR | DOME/HZZE | Polymer Conveyor Vent | Mid 1980's | DOMC/HZZC Boiler/Flare |
| DMX | DOME/HZZE | IRS Tank Vent | 1980, modified 1995 | DOMC/HZZC Boiler/Flare |
| DMY | DOME/HZZE | IRS Divert | 1980, modified 1995 | DOMC/HZZC Boiler/Flare |
| DOA | DOME/HZZE | VRS Oil Scrubber | 2013 | DOMC/HZZC Boiler/Flare |
| DOC | DOME/HZZE | VRS – Oil Scrubber Bypass | 1995 | DOMC/HZZC Boiler/Flare |
| DOD | DOME/HZZE | VRS Hi-Delta P (VRS Bypass) | 1995 | DOMC/HZZC Boiler/Flare |
| DOG | DOME/HZZE | Stripper Decanter | 1972, modified 1988 | DOMC/HZZC Boiler/Flare |
| DON | DOME/HZZE | "B" Organic Waste Feed Tank | 2001 | DOMC/HZZC Boiler/Flare |
| DOO | DOME/HZZE | "A" Organic Waste Feed Tank | 1959, modified 1988 | DOMC/HZZC Boiler/Flare |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Control Device |
|---|---|---|---|---|
| DOP | DOME/HZZE | "A" Aqueous Waste Water Tank | 1963 | DOMC/HZZC Boiler/Flare |
| DOQ | DOME/HZZE | Aqueous Waste Water Decanter | 2001 | DOMC/HZZC Boiler/Flare |
| DOX | DOME/HZZE | Polymerization Bldg. East Sump | 1959 | DOMC/HZZC Boiler/Flare |
| DPH | DOME/HZZE | Capper | 1959 | DOMC/HZZC Boiler/Flare |
| DPL | DOME/HZZE | Capper | 1981 | DOMC/HZZC Boiler/Flare |
| DPM | DOME/HZZE | TEHOF Reactor | 2001 | DOMC/HZZC Boiler/Flare |
| DPP | DOME/HZZE | TEHOF Reactor Decanter | 1981 | DOMC/HZZC Boiler/Flare |
| GAA | DOME/HZZE | Reactor/FC | 1959, modified 1988 | DOMC/HZZC Boiler/Flare |
| GAB | DOME/HZZE | Reactor/FC | 1959, modified 1988 | DOMC/HZZC Boiler/Flare |
| GAC | DOME/HZZE | Reactor/FC | 1959, modified 1988 | DOMC/HZZC Boiler/Flare |
| GAN | DOME/HZZE | Intermediate Polymer Silo-Solvent | 1959 | DOMC/HZZC Boiler/Flare |
| GAO | DOME/HZZE | Intermediate Polymer Silo $CH_2O$ | 1959, modified 1995 | DOMC/HZZC Boiler/Flare |
| GAZ | DOME/HZZE | Intermediate Polymer Silo-Solvent | 1959 | DOMC/HZZC Boiler/Flare |
| GBA | DOME/HZZE | Intermediate Polymer Silo $CH_2O$ | 1959, modified 1995 | DOMC/HZZC Boiler/Flare |
| HAA | DOME/HZZE | Virtual Source for Condenser Mass Balance | 1959 | DOMC/HZZC Boiler/Flare |
| HAB | DOME/HZZE | Virtual Source for Condenser Mass Balance | 1981 | DOMC/HZZC Boiler/Flare |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Control Device |
|---|---|---|---|---|
| HAD | DOME/HZZE | Virtual Source for Condenser Mass Balance | 1959 | DOMC/HZZC Boiler/Flare |
| HAF | DOME/HZZE | Virtual Source for Condenser Mass Balance | 1959 | DOMC/HZZC Boiler/Flare |
| HAH | DOME/HZZE | Virtual Source for Condenser Mass Balance | 1959 | DOMC/HZZC Boiler/Flare |
| HBA | DOME/HZZE | S/U Seed Make Up | 1959 | DOMC/HZZC Boiler/Flare |
| HBJ | DOME/HZZE | Condenser Wash | 1959 | DOMC/HZZC Boiler/Flare |
| HBK | DOME/HZZE | Condenser Wash | 1959 | DOMC/HZZC Boiler/Flare |
| HBM | DOME/HZZE | Isolation System Vent | 1995 | DOMC/HZZC Boiler/Flare |
| HBY | HBYE | Fuel TT Loading from “A” to “B” Organic Tank | 1988 | None |
| HBZ | HBZE | TT Loading – “A” Aqueous Tank | 1988 | None |
| DOU | DOUE | Tank Farm Sump | 1959 | None |
| DOW | DOWE | Still-House Sump | 1959 | None |
| GAD | DOXE | Reactor/FC Steam Out | 1959 | DHTC1/DHTC 2 Vapor Condensers |
| GAE | DOXE | Reactor/FC Steam Out | 1959 | DHTC1/DHTC 2 Vapor Condenser |
| GAF | DOXE | Reactor/FC Steam Out | 1959 | DHTC1/DHTC 2 Vapor Condensers |
| DOY | DOYE | Poly. Bldg. West Sump | 1959 | None |
| DLD | DOZE | #1 Secondary Condenser Steamout | 1989 | None |
| DLF | DOZE | #2 Secondary Condenser Steamout | 1989 | None |
| DOZ | DOZE | Capper Bldg. Sump | 1959 | None |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Control Device |
|---|---|---|---|---|
| DPA | DPAE | Waste Area Sump | 1959 | None |
| DPO | DPOE | Column Tails Analyzer | Pre-Dec. 1983 | None |
| GZZ1 | DEME | Maintenance Jet for #1 Capper (DPH) | 2011 | Scrubber DEM-OH |
| GZZ2 | DEME | Maintenance Jet for #2 Capper (DPL) | 2011 | DEM-OH Scrubber |
| HZW | HZZE | Flare - Particulate | 1995 | HZZC Flare |
| HZX | HZZE | Flare – $NO_x$ | 1995 | HZZC Flare |
| HZY | HZZE | Flare – $SO_2$ | 1995 | HZZC Flare |
| HZZ | HZZE | Flare – CO | 1995 | HZZC Flare |
| DAKC | DAKE | Scrubber | 1980 | None |
| DCMC | DCYE | Condenser | Pre-1965 | None |
| DOMC | DOME | Boiler | 2001 | None |
| DMLC | DMLE | Vapor Vent Condenser | 1989 | None |
| HZZC | HZZE | Flare | 1995 | None |
| DHTC1 | DOXE | Vapor Condenser | 1959 | None |
| DHTC2 | DOXE | Vapor Condenser | 1959 | None |
| DEM-OH | DEME | Emergency Wet Scrubber | 1985 | None |
| D11 | D11E | Solvent Column Upper Layer Tank RV Change Out | 1959 | None |
| D12 | D12E | Solvent Column Decanter RV Change Out | 1959 | None |
| D14 | D14E | Recycle Solvent Storage Tank RV Change Out | 1965 | None |
| D15 | D15E | Solvent Storage Tank RV Change Out | 1965 | None |
| D16 | D16E | Silica Gel Bed “A” RV Change Out | 1959 | None |
| D17 | D17E | Silica Gel Bed “B” RV Change Out | 1959 | None |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Control Device |
|---|---|---|---|---|
| D18 | D18E | Silica Gel Bed "C" RV Change Out | 1959 | None |
| D20 | D20E | Solvent Column Decanter RV Change Out | 1959 | None |
| D21 | D21E | Solvent Column Upper Layer Tank RV Change Out | 1959 | None |
| D27 | D27E | LBC Distillate Receiver RV Change Out | 1963 | None |
| D35 | D35E | #1 Slurry Feed Tank RV Change Out | 1959 | None |
| D37 | D37E | #1 Centrifuge RV Change Out | 1959 | None |
| D39 | D39E | #1 Centrifuge Receiver Tank RV Change Out | 1959 | None |
| D40 | D40E | #2 Centrifuge Receiver Tank RV Change Out | 1959 | None |
| D44 | D44E | #1 Dryer-Decanter U/L Tank RV Change Out | 1959 | None |
| D46 | D46E | #2 Dryer-Decanter U/L Tank RV Change Out | 1959 | None |
| D52 | D52E | VRS Steam Stripper Distillate Tank RV Change Out | 1972 | None |
| D57 | D57E | "A" RP Silo RV Change Out | 1959 | None |
| D59 | D59E | "C" RP Silo RV Change Out | 1959 | None |
| D63 | D63E | #2 Centrifuge RV Change Out | 1995 | None |
| D65 | D65E | #1 Capper RV Change Out | 1959 | None |
| D66 | D66E | #2 Capper RV Change Out | 1981 | None |
| D69 | D69E | Catalyst Mix Tank RV Change Out | 1959 | None |
| DDX | DOME/HZZE | Alcohol Decanter | 1959 | DOMC/HZZC Boiler/Flare |
| DOJ | DOJE | Emergency Divert (Hi-Hi $O_2$) from Knock-Out Pot | 1995 | None |
| DOV | DOVE | Furnace/Flare Emergency Divert | 1995 | None |
| DEM-OH | DEME | DEWS Scrubber – Emergency Use OH Protection Only | 2006 | None |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Control Device |
|---|---|---|---|---|
| **Alternative Operating Scenario: Process Unit Shutdown** | | | | |
| DAL-Alt | DEME | "E" Tank | 2011 | None |
| DCF-Alt | DEME | Recycle Solvent Storage Tank | 1965 | None |
| DCG – Alt | DEME | Solvent Storage Tank | 1965 | None |
| DDW-Alt | DEME | Low Boiler Column Feed Tank | 1959 | None |
| DEZ-Alt | DEME | Concentrator Feed Tank | 1959 | None |
| DMH-Alt | DEME | Recycle Acetic Anhydride Storage Tank | 2000 | None |
| DON-Alt | DEME | "B" Organic Tank | 2001 | None |
| DOO-Alt | DEME | "A" Organic Waste Feed Tank | 1959 | None |
| DOP-Alt | DEME | "A" Aqueous Tank | 1963 | None |
| DEB-Alt | DEME | Dehy Feed Tank | 2011 | None |
| DDO-Alt | DAKE | Recycle Alcohol Tank | 1969 | None |
| DEA-Alt | DAKE | Pyro Feed Tank | 1958 | None |
| DOQ-Alt | DEME | Aqueous Waste Water Decanter | 2013 | None |
| DIN-Alt | DINE | Brine Tank | 2013 | None |
| ***Finishing*** | | | | |
| DCR-S | DQC-E | Additive Preparation Equipment | 2007 | DQC-C Bag Filter |
| DLAB-S | DLAB-E | Delrin Lab Hoods | 1960's | None |
| DPD-S | DPD-E | Finishing Area Sump | 1960 | None |
| DQH-S | DQC-E, DQG-E | #6 Ext. Fluff Bin | 1960 | DQC-C, DQG-C Bag Filters |
| DQI-S | DQC-E, DQG-E | #3 Ext. Fluff Bin | 1960 | DQC-C, DQG-C Bag Filters |
| DQJ-S | DQC-E, DQG-E | #4 Ext. Fluff Bin | 1972 | DQC-C, DQG-C Bag Filters |
| DQK-S | DTZ-E | #4 Ext. Sparger Bin | 1972 | DTZ-C Bag Filter |
| DQL-S | DTZ-E | #5 Ext. Fluff Bin | 1981 | DTZ-C Bag Filter |
| DQM-S | DTZ-E | #5 Ext. Sparge Bin | 1981 | DTZ-C Bag Filter |
| DQO-S | DQO-E | #6 Ext. Screw Conveyor | 2004 | None |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Control Device |
|---|---|---|---|---|
| DQP-S | DQC-E, DQG-E | #6 Ext. Wax Blender | 1960 | DQC-C, DQG-C Bag Filters |
| DQQ-S | DQC-E, DQG-E | #6 Ext. Ribbon Blend. | 2004 | DQC-C, DQG-C Bag Filters |
| DQR-S | DQR-E | #3 Ext. Die Hood | 1970 | None |
| DQT-S | DQC-E, DQG-E | #4 Ext. Conc. Blender | 1988 | DQC-C, DQG-C Bag Filters |
| DQU-S | DZB-E, DQV-E | #4 Ext. Cube Blender | 1971 | DZB-C Bag Filter or None |
| DQV-S | DQV-E | #6 Ext. Die Hood | 2004 | None |
| DQW-S | DZD-E | #4 Ext. Die Hood | 1971 | None |
| DQY-S | DQY-E | #6 Ext. Rework Conv. | 2004 | None |
| DQZ-S | DQZ-E | #3 Ext. Rework Conv. | 1970 | None |
| DRA-S | DRA-E | #3 Ext. Screw Conv. | 1960 | None |
| DRB-S | DQC-E, DQG-E | #4 Ext. Screw Conveyor | 1972 | DQC-C, DQG-C Bag Filters |
| DRC-S | DRC-E | #4 Ext. Rework Conveyor | 1972 | None |
| DRD-S | DTZ-E | #5 Ext. Screw Conveyor | 1981 | DTZ-C Bag Filter |
| DSJ-S | DWU-E | #6 Ext. Dryer | 2004 | None |
| DSK-S | DWV-E | #3 Ext. Dryer | 1970 | None |
| DSL-S | DWW-E | #4 Ext. Dryer | 1971 | None |
| DSM-S | DWX-E | #5 Ext. Dryer | 1981 | None |
| DUG-S | DST-E | #6 Extruder Cube Blender | 2004 | DST-C Bag Filter |
| DSY-S | DQC-E, DQG-E | #4 Ext. Rework Hopper | 1972 | DQC-C, DQG-C Bag Filters |
| DTA-S | HFZ-E | #5 Ext. Alloy Additive Bin | 1981 | HFZ-P Bag Filter |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Control Device |
|---|---|---|---|---|
| DTD-S | DQC-E, DQG-E | #3 Ext. Add. Feeder | 1989 | DQC-C, DQG-C<br>Bag Filters |
| DTE-S | DQC-E, DQG-E | Capped Ribbon Blender | 1960 | DQC-C, DQG-C<br>Bag Filters |
| DTF-S | DTF-E | CD Blower System | 1980's | None |
| DTG-S | DTG-E | GH Blower System | 1988 | None |
| DTH-S | DTH-E | "A" Product Silo | 1960 | None |
| DTI-S | DTI-E | "B" Product Silo | 1960 | None |
| DTJ-S | DTJ-E | "C" Product Silo | 1960 | None |
| DTK-S | DTK-E | "D" Product Silo | 1960 | None |
| DTL-S | DTL-E | "E" Product Silo | 1971 | None |
| DTM-S | DTM-E | "F" Product Silo | 1971 | None |
| DTN-S | DTN-E | "G" Product Silo | 1976 | None |
| DTO-S | DTO-E | "H" Product Silo | 1976 | None |
| DTP-S | DUK-E | #3 Elut. Bulk Cubes Silo | 1989 | DUK-C<br>Bag Filter |
| DTQ-S | DTQ-E | #6 Ext. Melt Cut. Tank | 2004 | None |
| DTR-S | DTR-E | #3 Ext. Melt Cut Tank | 1960 | None |
| DTS-S | DTS-E | #4 Ext. Melt Cut. Tank | 1972 | None |
| DTT-S | DTT-E | #5 Ext. Melt Cut Tank | 1981 | None |
| DTV-S | DSZ-E | #6 Ext. Conc. Transfer | 2004 | DST-P<br>Bag Filter (Process)<br>DSZ-C<br>Filter, In-line |
| DUA-S | DSZ-E | #4 Ext. Conc. Transfer | 1972 | DSX-P<br>Bag Filter (Process)<br>DSZ-C<br>Filter, In-Line |
| DUB-S | DUB-E | "E" Fluidizing Blower Vent | Early 1970's | None |
| DUC-S | DUC-E | "K" Fluidizing Blower Vent | Early 1970's | None |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Control Device |
|---|---|---|---|---|
| DUD-S | DUD-E | "J" Fluidizing Blower Vent | 2007 | None |
| DUE-S | DUK-E, DZB-E | "A" Packout Silo | 1961 | DUK-C, DZB-C Bag Filters |
| DUF-S | DUK-E, DZB-E | "B" Packout Silo | 1961 | DUK-C, DZB-C Bag Filters |
| DUG-S | DUK-E | #6 Ext. Cube Blender | 2004 | DUK-C Bag Filter |
| DUI-S | DUK-E, DZB-E | #5 Ext. Cone Blender | 1981 | DUK-C, DBZ-C Bag Filters |
| DUN-S | DUK-E | #4 Ext. Prod. Hopper | 1988 | DUK-C Bag Filter |
| DUO-S | DUK-E | #3 Ext. Net Wt. Hopper | 1989 | DUK-C Bag Filter |
| DUP-S | DQE-E | Box Dumper Return Hopper | 1998 | DQE-P Bag Filter (Process) |
| DUQ1-S | DUQ-E | BF Loading Station | 1970 | DUQ-C Fabric Filter |
| DUQ2-S | DUQ-E | BF Loading Station | 1970 | DUQ-C Fabric Filter |
| DUQ3-S | DUQ-E | BF Dumpling Station | 1998 | DUQ-C Fabric Filter |
| DUR-S | DUR-E | BF Pack Out Rec. | 1970 | DUR-C Fabric Filter |
| DVB-S | DUR-E | BF Pack Out Filt. Rec. | 1970 | DUR-C Fabric Filter |
| DVC-S | DVA-E | #1 BF Storage Silo | 1989 | DVA-C Fabric Filter |
| DVD-S | DVA-E | #2 BF Storage Silo | 1989 | DVA-C Fabric Filter |
| DVE-S | DVA-E | #3 BF Storage Silo | 1989 | DVA-C Fabric Filter |
| DVF-S | DVA-E | #4 BF Storage Silo | 1989 | DVA-C Fabric Filter |
| DVL-S | DVI-E | North Load Out Silo | 1989 | DVI-C Fabric Filter |
| DVM-S | DVJ-E | South Load Out Silo | 1989 | DVJ-C Fabric Filter |
| DVN-S | DVN-E | #6 Ext. Sparger (#1) | 2004 | None |
| DVS-S | DQY-E | #6 Ext. Rework Hopper | 2004 | None |
| DVT-S | DQZ-E | #3 Ext. Rework Hopper | 1960 | None |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Control Device |
|---|---|---|---|---|
| DVU-S | DRY-E/HCL-E | #6 Extruder Vent | 2004 | DRY-P, HCL-P Cyclones (Process) |
| DVV-S | DSN-E | #3 Extruder Vent | 1960 | DSN-P Cyclone (Process) |
| DVW-S | DSO-E | #4 Extruder Vent | 1972 | DSO-P Cyclone (Process) |
| DVX-S | DSB-E | #5 Extruder | 1981 | DSB-P Cyclone (Process) |
| DWA-S | DWA-E | Vacuum Unloading | 1980's | DWA-P Bag Filter (Process) |
| DWB-S | DQN-E | #3 Ext. Sparge Bin | 1960 | None |
| DWC-S | DTZ-E, DUK-E | #5 Ext. Prod. Hopper | 1988 | DTZ-C, DBZ-C Bag Filters |
| DWE-S | DTZ-E | #5 Ext. Sparger Valve | 1981 | DTZ-C Bag Filter |
| DWF-S | HGW-E | #5 Ext. Screener | 1981 | None |
| DWG-S | DZB-E | #6 Ext. Screener | 2004 | DZB-C Bag Filter |
| DWH-S | DZB-E | #3 Ext. Screener | 1960 | None |
| DWI-S | DQC-E, DQG-E | #6 Ext. Feed Hopper | 2004 | DQC-C, DQG-C Bag Filters |
| DWJ-S | DQC-E, DQG-E | #4 Ext. Feed Hopper | 1972 | DQC-C, DQG-C Bag Filters |
| DWK-S | DWK-E | #4 Ext. Fines Screener | 1971 | None |
| DWL-S | DWL-E | #4 Ext. Fines Drum | 1972 | None |
| DWM-S | DZG-E | #5 Ext. Conc. Blower | 1981 | DWD-P Bag Filter (Process) |
| DWP-S | DTZ-E | #5 Ext. Mix Conveyor | 1981 | DTZ-C Bag Filter |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Control Device |
|---|---|---|---|---|
| DWQ-S | DQC-E/DQG-E | #4 Ext. Wax Blender | 1972 | DQC-C, DQG-C Bag Filters |
| DWR-S | DQC-E/DQG-E | #4 Ext. Blender Valve | 1972 | DQC-C, DQG-C Bag Filters |
| DZH-S | DZG-E | #5 Ext. Black Conc. Conv. | 1981 | DWD-P Bag Filters (Process) |
| GCA-S | DUW-E | #1 BF Stor. Silo F-Vent | 1989 | DUW-C Fabric Filter |
| GCB-S | DUX-E | #2 BF Stor. Silo F-Vent | 1989 | DUX-C Fabric Filter |
| GCC-S | DUY-E | #3 BF Stor. Silo F-Vent | 1989 | DUY-C Fabric Filter |
| GCD-S | DUZ-E | #4 BF Stor. Silo F-Vent | 1989 | DUZ-C Fabric Filter |
| HCA-S | HCA-E | #6 Ext. Sparger (#2) | 2004 | None |
| HCI-S | DUK-E | #3 Ext. Cube Blender | 1988 | DUK-C Bag Filter |
| HCO-S | DQC-E, DQG-E | #3 Ext. Wax Blender | 1989 | DQC-C, DQG-C Bag Filters |
| HCU-S | DTZ-E | #5 Ext. Add. Feeder | 1981 | DTZ-C Bag Filter |
| HCV-S | DTZ-E | #5 Ext. Blender Valve | 1981 | DTZ-C Bag Filter |
| HCX-S | DTZ-E | #5 Ext. Wax Blender | 1981 | DTZ-C Bag Filter |
| HCY-S | DTZ-E | #5 Ext. Wax Feeder | 1981 | DTZ-C Bag Filter |
| HCZ-S | DTZ-E | #5 Ext. Ribbon Blender | 1981 | DTZ-C Bag Filter |
| HDG-S | DTZ-E | #5 Extruder Additive Feeder – All Production | 1981 | DTZ-C Bag Filter |
| HDZ-S | HDZ-E | #1 Ext. Melt Cut. Tank | 1997 | None |
| HEA-S | HDW-E | #1 Ext. Wax Feeder | 1997 | HDW-C Bag Filter |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Control Device |
|---|---|---|---|---|
| HEB-S | HDY-E | #1 Ext. Screener | 1997 | None |
| HED-S | HDW-E | #1 Ext. Screw Conveyor | 1997 | HDW-C Bag Filter |
| HEE-S | HEG-E | #1 Snake Skin Stripper | 2005 | HEF-C Bag Filter |
| HEM-S | HDW-E | #1 Ext. Side Feeder | 1997 | HDW-C Bag Filter |
| HER-S | HDW-E | #1 Ext. TPU Feeder | 1997 | HDW-C Bag Filter |
| HES-S | HES-E | #5 BF Stor. Silo F-Vent | 1998 | HES-C Fabric Filter |
| HET-S | HET-E | #6 BF Stor. Silo F-Vent | 1998 | HET-C Fabric Filter |
| HEU-S | DVA-E | #5 BF Storage Silo | 1998 | DVA-C Fabric Filter |
| HEV-S | DVA-E | #6 BF Storage Silo | 1998 | DVA-C Fabric Filter |
| HEW-S | DZG-E | #1 Ext. Add. Conveyor | 1997 | HEW-P Bag Filter (Process) |
| HEY-S | HDY-E | #1 Ext. Dryer | 1997 | None |
| HEZ-S | DZG-E | #1 Ext. Conc. Transfer | 1997 | HED-P Bag Filter (Process) |
| HFB-S | DTZ-E | #1 Ext. Blender Valve | 1997 | DTZ-C Bag Filter |
| HFC-S | DTZ-E | #1 Ext. Sparge Bin | 1997 | DTZ-C Bag Filter |
| HFD-S | HEE-E | #1 Extruder Vent | 1997 | HEE-P Cyclone (Process) |
| HFF-S | HDW-E | #1 Ext. Add. Feeder | 1997 | HDW-C Bag Filter |
| HFG-S | HDW-E | #1 Ext. Conc. Blender | 1997 | HDW-C Bag Filter |
| HFH-S | HEO-E | #1 Ext. Cube Blender | 1997 | HEO-C Bag Filter |
| HFI-S | DQM-E | #1 Ext. Sparge Bin | 1997 | None |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Control Device |
|---|---|---|---|---|
| HFJ-S | HEQ-E | #1 Ext. Fluff Bin | 1997 | None |
| HFL-S | DUK-E | #1 Ext. Prod. Hopper | 1997 | DUK-C Bag Filter |
| HFP-S | HFP-E | #1 Ext. Black Conc. Conveyor | 1997 | HFO-P Bag Filters (Process) |
| HFQ-S | HDW-E | #1 Ext. Net Wt. Hopper | 1997 | HDW-C Bag Filter |
| HFU-S | DQC-E, DQG-E | #3 Ext. Wax Blender | 1960 | DQC-C, DQG-C Bag Filters |
| HFV-S | HFV-E | #1 Ext. Die Hood | 1997 | None |
| HFW-S | HFW-E | #1 Ext. Screener Waste Drum | 1997 | None |
| HFY-S | DZG-E | #1 Ext. TPU Bin/Charge Sys. | 1997 | HER-P Bag Filter |
| HFZ-S | HFZ-E | #5 Ext. Rework Hopper | 1981 | None |
| HGB-S | DTZ-E | #5 Ext. Feed Hopper | 1981 | DTZ-C Bag Filter |
| HGD-S | HGD-E | #5 Ext. Longs Drum | 1981 | None |
| HGF-S | DQC-E, DQG-E | #4 Ext. Wax Feeder | 1972 | DQC-C, DQG-C Bag Filters |
| HGG-S | DQC-E, DQG-E | #4 Ext. Add. Feeder | 1972 | DQC-C, DQG-C Bag Filters |
| HGH-S | DQC-E, DQG-E | #6 Ext. Sparger Valve | 2004 | DQC-C, DQG-C Bag Filters |
| HGI-S | DQC-E, DQG-E | #3 Ext. Wax Bin Valve | 1960 | DQC-C, DQG-C Bag Filters |
| HGK-S | HGK-E | #6 Ext. Screener Box | 2004 | None |
| HGL-S | HGL-E | #3 Ext. Fines Box | 1960 | None |
| HGO-S | DQC-E, DQG-E | #6 Ext. Wax Feeder | 2004 | DQC-C, DQG-C Bag Filters |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Control Device |
|---|---|---|---|---|
| HGP-S | DQC-E, DQG-E | #3 Ext. Wax Feeder | 1989 | DQC-C, DQG-C<br>Bag Filters |
| HGT-S | HDW-E | #1 Ext. Feed Hopper | 1981 | HDW-C<br>Bag Filter |
| HGW-S | HGW-E | #5 Die Head Vent | 1981 | None |
| DBB-S | DBB-E | Maintenance Bead Blaster | 2000 | Integral to unit |
| DBU-S | DBU-E | Electrically Heated Burnout Oven | 1985 | None |
| DGA-S | DGA-E | Solvent Cleaning Station | 2000 | None |

## 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 |
|---|---|
| R13-1596E | March 15, 2011 |
| R13-1849M | January 17, 2014 |
| R13-2381F | March 16, 2011 |
| R13-2617F | March 29, 2012 |

# 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* C.F.R.** | 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 |
| **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 shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. Part 68.10. This stationary source shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.
**[40 C.F.R. 68]**

3.1.9. The permittee shall comply with all hourly and annual emission limits set forth by the affected 45CSR13 permits, for each of the sources and associated emission points identified in Attachment A of R13-2617.

Note: For the Acetal Resin Production Area, the affected permits are R13-1596, R13-1849, and R13-2381, the Attachment A listing only for those sources in the Acetal Resin Production Area is provided in APPENDIX A.1, and the hourly and annual emission limits for the affected sources are provided in 4.1.6 and APPENDIX B.1; 5.1.1 and 5.1.2; and 6.1.3, 6.1.4, 6.1.5, and APPENDIX D.2.
**[45CSR13, R13-2617, 4.1.1]**

3.1.10. The permitted sources identified in Attachment A of R13-2617 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 R13-2617, are also demonstrated. The applicable requirements set forth by 45CSR21 shall include, but not be limited to, the following:
**[45CSR13, R13-2617, 4.1.2 (State-Enforceable only)]**

3.1.10.1. 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 R13-2617.
**[45CSR13, R13-2617, 4.1.2.1; 45CSR§21-40.3.a.1 (State-Enforceable only)]**

3.1.10.2. On or after May 1, 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 1, 1996 shall be subject to the following:
**[45CSR13, R13-2617, 4.1.2.2; 45CSR§21-40.3.c (State-Enforceable only)]**

a. The RACT control plan(s) shall be embodied in a permit in accordance to 45CSR13.
**[45CSR13, R13-2617, 4.1.2.2.a; 45CSR§21-40.4.e (State-Enforceable only)]**

b. 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 3.1.10.1.
**[45CSR13, R13-2617, 4.1.2.2.b (State-Enforceable only)]**

3.1.10.3. 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 3.1.10.2.
**[45CSR13, R13-2617, 4.1.2.3; 45CSR§21-40.3.c (State-Enforceable only)]**

3.1.10.4. 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 1, 1996 shall be subject to the following;
**[45CSR13, R13-2617, 4.1.2.4; 45CSR§21-40.3.c (State-Enforceable only)]**

a. The RACT control plan (s) shall be embodied in a permit in accordance to 45CSR13.
**[45CSR13, R13-2617, 4.1.2.4.a; 45CSR§21-40.4.e (State-Enforceable only)]**

b. The facility-wide RACM plan shall be modified to include the RACT analysis conducted on the modified source(s).
**[45CSR13, R13-2617, 4.1.2.4.b (State-Enforceable only)]**

c. 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 3.1.10.1 of this permit.
**[45CSR13, R13-2617, 4.1.2.4.c (State-Enforceable only)]**

3.1.10.5. 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 3.1.10.1 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 1, 1996, in order to meet the requirements set forth in 3.1.10.1.
**[45CSR13, R13-2617, 4.1.2.5 (State-Enforceable only)]**

3.1.10.6. In the event a source and associated emission point identified in Attachment A of R13-2617 is subject to the New Source Performance Standards (NSPS) of 40 C.F.R. 60, the National Emission Standards for Hazardous Air Pollutants (NESHAP) of 40 C.F.R. 61, or the Maximum Achievable Control Technology (MACT) standards of 40 C.F.R. 63, then compliance with such requirements as defined in the affected 45CSR13 permit shall demonstrate compliance with the RACT requirements set forth in R13-2617.
**[45CSR13, R13-2617, 4.1.2.6 (State-Enforceable only)]**

Note: For the Acetal Resin Production Area, the affected permits are R13-1596, R13-1849, and R13-2381, and the Attachment A only for those sources in the Acetal Resin Production Area is provided in APPENDIX A.1.

3.1.11. The permitted sources identified in Attachment A of R13-2617 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 R13-2617 are also demonstrated. The applicable requirements set forth by 45CSR27 shall include, but not be limited to, the following:
**[45CSR13, R13-2617, 4.1.3 (State-Enforceable only)]**

3.1.11.1. 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 R13-2617.
**[45CSR13, R13-2617, 4.1.3.1; 45CSR§27-3.1 (State-Enforceable only)]**

3.1.11.2. The permittee shall employ BAT for the purpose of preventing and controlling fugitive emissions of TAP to the atmosphere as a result of routing leakage from those sources and their associated equipment identified in Attachment A of R13-2617 as operating in TAP service.
**[45CSR13, R13-2617, 4.1.3.2; 45CSR§27-4.1 (State-Enforceable only)]**

Note: For the Acetal Resin Production Area, the affected permits are R13-1596, R13-1849, and R13-2381, and the Attachment A listing only for those sources in the Acetal Resin Production Area is provided in APPENDIX A.1.

3.1.12. In the event a source and associated emission point identified in Attachment A of R13-2617 are subject to the MACT standards of 40 C.F.R. 63, then compliance with the applicable MACT requirements identified in the affected 45CSR13 permit shall demonstrate compliance with the BAT requirements set forth in 3.1.11.

Note: For the Acetal Resin Production Area, the affected permits are R13-1596, R13-1849, and R13-2381, and the Attachment A listing only for those sources in the Acetal Resin Production Area is provided in APPENDIX A.1.
**[45CSR13, R13-2617, 4.1.4; 45CSR§27-3.1 (State-Enforceable only)]**

3.1.13. The permittee shall not 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 operations and maintenance procedures, to minimize the emission of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate emissions reasonably achievable.
**[45CSR§7-5.1; 45CSR13, R13-1596, 4.1.7; 45CSR13, R13-1849, 4.1.3.4]**

3.1.14. 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; 45CSR13, R13-1849, 4.1.3.5]**

3.1.15. **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 Appendix A.1 and

associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary. **[45CSR13, R13-2617, 4.1.5]**

## 3.2. Monitoring Requirements

3.2.1. 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 45CSR§21-37 or alternate procedures approved by the Director. Procedures approved by the Director, 40 C.F.R. 60, Subpart VV, 40 C.F.R. 61, Subpart V, 40 C.F.R. 63, Subpart H, 40 C.F.R. 63, Subpart TT, 40 C.F.R. 63, Subpart UU, 40 C.F.R. 65, Subpart F, and 40 C.F.R. 265, Subpart CC. This requirement shall apply to all units identified in Attachment A of R13-2617 irrespective of whether or not such units produce as intermediates or final products, substances on the lists contained with 40 C.F.R. 60, 40 C.F.R. 61, or 40 C.F.R. 63.

Note: The Attachment A listing only for those sources in the Acetal Resin Production Area is provided in APPENDIX A.1.
**[45CSR13, R13-2617, 4.2.1; 45CSR§21-40.3.a.2 (State-Enforceable only)]**

3.2.2. The permittee shall implement and maintain a LDAR program for the applicable sources and emission points identified in Attachment A of R13-2617 in order to reduce the emissions of TAP in accordance with the requirements of 40 C.F.R. 63, Subpart H – "National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks." Compliance with 40 C.F.R. 63, Subpart H shall be considered demonstration of compliance with the provisions of 45CSR§27-4 – "Fugitive Emissions of Toxic Air Pollutants."

Note: The Attachment A listing only for those sources in the Acetal Resin Production Area is provided in APPENDIX A.1.
**[45CSR13, R13-2617, 4.2.2; 45CSR§27-4.1 (State-Enforceable only)]**

3.2.3. In the event a source and associated emission point identified in Attachment A of R13-2617 are subject to the MACT standards of 40 C.F.R. 63, 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.

Note: For the Acetal Resin Production Area, the affected permits are R13-1596, R13-1849, and R13-2381, and the Attachment A listing only for those sources in the Acetal Resin Production Area is provided in APPENDIX A.1.
**[45CSR13, R13-2617, 4.2.3; 45CSR§21-37.1.c (State-Enforceable only); 45CSR§27-4.1 (State-Enforceable only)]**

## 3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may

at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.

b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.

c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

d. The permittee shall submit a report of the results of the stack test within 60 days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:

1. The permit or rule evaluated, with the citation number and language.

2. The result of the test for each permit or rule condition.

3. A statement of compliance or non-compliance with each permit or rule condition.

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

3.3.2. 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 testing 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, R13-2617, 4.3.1; 45CSR§21-40.3.a.2 (State-Enforceable only)]**

3.3.3. In the event a source and associated emission point identified in Attachment A of R13-2617 are subject to the MACT standards of 40 C.F.R. 63, 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.

Note: For the Acetal Resin Production Area, the affected permits are R13-1596, R13-1849, and R13-2381, and the Attachment A listing only for those sources in the Acetal Resin Production Area is provided in APPENDIX A.1.
**[45CSR13, R13-2617, 4.3.2; 45CSR§21-37.1.c (State-Enforceable only); 45CSR§27-4.1 (State-Enforceable only)]**

## 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; R13-2617 Condition 4.4.1; R13-1596 Condition 4.4.1; R13-1849 Condition 4.4.1; and R13-2381 Condition 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, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
**[45CSR13, R13-2617, Condition 4.4.2; 45CSR13, R13-1596, Condition 4.4.2; 45CSR13, R13-1849, Condition 4.4.2; 45CSR13, R13-2381, Condition 4.4.2]**

3.4.5. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, 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, R13-2617, 4.4.3; 45CSR13, R13-1596, 4.4.3; 45CSR13, R13-1849, 4.4.3; 45CSR13, R13-2381, 4.4.3]**

3.4.6. Unless granted a variance pursuant to 45CSR§21-9.3, 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 40 C.F.R. 63, the owner or operator of the facility shall operate all emission control equipment listed in Attachment A of R13-2617 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 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.

Note: For the Acetal Resin Production Area, the affected permits are R13-1596, R13-1849, and R13-2381, and the Attachment A listing only for those sources in the Acetal Resin Production Area is provided in APPENDIX A.1.
**[45CSR13, R13-2617, 4.4.4 (State-Enforceable only)]**

3.4.7. 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 R13-2617.

Note: For the Acetal Resin Production Area, the affected permits are R13-1596, R13-1849, and R13-2381, and the Attachment A listing only for those sources in the Acetal Resin Production Area is provided in APPENDIX A.1.
**[45CSR13, R13-2617, 4.4.5]**

3.4.8. The permittee shall monitor all fugitive particulate emission sources as required by 3.1.13. to ensure that a system to minimize fugitive emissions has been installed or implemented. Records shall be maintained on site for a period of no less than five (5) years stating the types of fugitive particulate capture and/or suppression systems used, the times these systems were inoperable, and the corrective actions taken to repair these systems.
**[45CSR§30-5.1.c.]**

3.4.9. The permittee shall maintain records indicating the use of any dust suppressants or any other suitable dust control measures as required by 3.1.14 applied at the facility. These records shall be maintained on site for a period of no less than five (5) years.
**[45CSR§30-5.1.c.]**

3.4.10. Your site remediation activities are not subject to the requirements of 40 C.F.R. 63, Subpart GGGGG, except for the recordkeeping requirements in this paragraph, provided that you meet the requirements specified in paragraphs (c)(1) through (c)(3) of this section.

3.4.10.1. You determine that the total quantity of the HAP listed in Table 1 of 40 C.F.R. 63, Subpart GGGGG that is contained in the remediation material excavated, extracted, pumped, or otherwise removed during all of the site remediations conducted at your facility is less than 1 mega gram (Mg) annual. This exemption applies the 1 Mg limit on a facility-wide, annual basis, and there is no restriction to the number of site remediations that can be conducted during this period.

3.4.10.2. You must prepare and maintain at your facility written documentation to support your determination that the total HAP quantity in your remediation materials for the year is less than 1 Mg. The documentation must include a description of your methodology and data used for determining the total HAP content of the remediation material.

3.4.10.3. Your Title V permit does not have to be reopened or revised solely to include the recordkeeping requirement specified in 3.4.10.2. However, the requirement must be included in your permit the next time the permit is renewed, reopened, or revised for another reason.
**[45CSR34; 40 C.F.R. §63.7881(c)]**

## 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:**

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

Phone: 304/926-0475
FAX: 304/926-0478

**If to the US EPA:**

Associate Director
Office of Enforcement and Permits Review (3AP12)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
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 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.]**

3.5.10. 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 1, 1996) has occurred. Such plan shall include those sources listed in Attachment A of R13-2617 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.
Note: The Attachment A listing only for those sources in the Acetal Resin Production Area is provided in APPENDIX A.1.
**[45CSR13, R13-2617, 4.5.1; 45CSR§40.4.c.1 (State-Enforceable only)]**

## 3.6. Compliance Plan

N/A

## 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 C.F.R. 60, Subpart K - "Standards of Performance For Storage Vessels For Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978." There are no petroleum liquid storage tanks in the Acetal Resin Production Area.

b. 40 C.F.R. 60, Subpart Ka - "Standards of Performance for Storage Vessels For Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984." There are no petroleum liquid storage tanks in the Acetal Resin Production Area.

c. 40 C.F.R. 60, Subpart DDD - "Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry." The Acetal Resin Production Area does not manufacture polypropylene, polyethylene, polystyrene, or poly(ethylene terephthalate) for which this rule applies.

d. 40 C.F.R. 61, Subpart V - "National Emission Standards for Equipment Leaks (Fugitive Emissions Sources)." Applies to sources in VHAP service as defined in 40 C.F.R. §61.241. VHAP service involves chemicals that are not used in a manner that qualifies them under the rule in the Acetal Resin Production Area.

e. 40 C.F.R. 63, Subpart DD – "National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations." The Acetal Resin Production Area does not receive off-site materials as specified in paragraph 40 C.F.R. §63.680(b) and the operations are not one of the waste management operations or recovery operations as specified in 40 C.F.R. §§63.680(a)(2)(i) through (a)(2)(vi).

f. 40 C.F.R. 63, Subpart EEE – "National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors." DOM is not subject to the provisions of this subpart because, in accordance with 40 C.F.R. §63.1200(b)(3), it does not combust a hazardous waste as defined by 40 C.F.R. §§266.100(c) and 261.4(a)(16).

g. 40 C.F.R. 63, Subpart JJJ - "National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins." The Acetal Resin Production Area does not produce the materials listed in 40 C.F.R. §63.1310.

h. 40 C.F.R. 63, Subpart PPPP – "National Emission Standards for Hazardous Air Pollutants: Surface Coating of Plastic Parts and Products." The Acetal Resin Production Area does not produce an intermediate or final product that meets the definition of a "surface coated" plastic part.

i. 40 C.F.R. 63, Subpart WWWW - "National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production." The Acetal Resin Production Area does not engage in

reinforced plastics composites production as defined in 40 C.F.R. §63.5785 and does not manufacture composite material as defined in 40 C.F.R. §63.5935.

j. 40 C.F.R. 63, Subpart ZZZZ – "National Emission Standards for Hazardous Air Pollutants: Reciprocating Internal Combustion Engines." The Acetal Resin Production Area does not have a stationary Reciprocating Internal Combustion Engine (RICE) as defined by 40 C.F.R. §63.6675.

~~k. 40 C.F.R. 63, Subpart DDDDD – "National Emission Standards for Hazardous Air Pollutants: Industrial/Commercial/Institutional Boilers and Process Heaters." The Acetal Resin Production Area does not own or operate an industrial, commercial, or institutional boiler or process heater as defined in 40 C.F.R. §63.7575.~~

~~l~~k. 40 C.F.R. 63, Subpart GGGGG – "National Emission Standards for Hazardous Air Pollutants: Site Remediation." The Acetal Resin Production Area does not conduct site remediation as defined by 40 C.F.R. §63.7957 that meets all three of the conditions specified in 40 C.F.R. §§63.7881(a)(1) through (a)(3).

~~m~~l. 40 C.F.R. 63, Subpart HHHHH – "National Emission Standards for Hazardous Air Pollutants: Miscellaneous Coating Manufacturing." The Acetal Resin Production Area does not produce, blend, or manufacture coatings as part of the manufacturing process.

~~n~~m. 40 C.F.R. 63, Subpart NNNNN – "National Emission Standards for Hazardous Air Pollutants: Hydrochloric Acid Production." The Acetal Resin Production Area is not an HCl production facility as defined by 40 C.F.R. §63.9075.

~~o~~n. 40 C.F.R. 82, Subpart B - "Protection of Stratospheric Ozone." Requires recycling of Chlorofluorocarbons (CFCs) from motor vehicles and that technicians servicing equipment need to be licensed. The Acetal Resin Production Area does not conduct motor vehicle maintenance involving CFCs on site.

~~p~~o. 40 C.F.R. 82, Subpart C – "Protection of Stratospheric Ozone." Bans non-essential products containing Class I substances and bans non-essential products containing or manufactured with Class II substances. The Acetal Resin Production Area does not use, manufacture, nor distribute these materials.

~~q~~p. 45CSR17 – "To Prevent and Control Particulate Matter Air Pollution from Materials Handling, Preparation, Storage and Other Sources of Fugitive Particulate Matter." Per 45CSR§17-6.1, the Acetal Resin Production Area is not subject to 45CSR17 because it is subject to the fugitive particulate matter emission requirements of 45CSR7.

~~u~~q. 40 C.F.R. 63, Subpart EEEE – "National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)." Storage tanks DIN, DIR, and DIS are existing tanks with a design capacity greater than or equal to 18.9 cubic meters (5,000 gallons) and less than 189.3 cubic meters (50,000 gallons) storing an organic liquid with an annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid less than 27.6 kilopascals (4.0 psia). Since the annual average true vapor pressure of the total Table 1 organic HAP is less than 4.0 psia, these tanks are not required to be controlled under 40 C.F.R. 63, Subpart EEEE and are only subject to the notification, recordkeeping, and reporting requirements of 40 C.F.R. §§63.2343(b)(1) through (3). The unloading systems for these tanks, DJZ, DJY, and DJX are used for unloading the storage tanks when

maintenance or inspection is required and are not an affected source under 40 C.F.R. 63, Subpart EEEE as specified in 40 C.F.R. §63.2338(c)(3). Since the tanks do not require control and the unloading systems are not affected sources, 40 C.F.R. §63.2350(c) does not require DuPont to develop a written startup, shutdown, and malfunction (SSM) plan for the tanks or unloading systems. Also, since the equipment leak detection requirements of 40 C.F.R. §63.2346(c) only apply if the affected source has at least one storage tank or transfer rack that meets the applicability criteria for control in Table 2 of 40 C.F.R. 63, Subpart EEEE, and none of the tanks or transfer racks are required to be controlled, DuPont is not subject to the leak detection and repair requirements of 40 C.F.R. 63, Subpart EEEE.

~~v~~r. 40 C.F.R. 63, Subpart FFFF (MON) – "National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing
The Acetal resin finishing area is not subject to this Subpart due to the following exemption:
40 C.F.R. §63.2435(c)(4) Fabricating operations (such as spinning or compressing a solid polymer into its end use); compounding operations (in which blending, melting, and resolidification of a solid polymer product occur for the purpose of incorporating additives, colorants, or stabilizers); and extrusion and drawing operations (converting an already produced solid polymer into a different shape by melting or mixing the polymer and then forcing it or pulling it through an orifice to create an extruded product). An operation is not exempt if it involves processing with HAP solvent or if an intended purpose of the operation is to remove residual HAP monomer.

# 4.0 Formaldehyde

## 4.1. Limitations and Standards

4.1.1. The permitted facility shall be limited to the emission sources, pollution control equipment, and associated emission points identified in Section 1.0 - *Formaldehyde*.
**[45CSR13, R13-1596, 4.1.1]**

4.1.2. The Catalytic Converter (DBJ-C) shall be operated and maintained so to provide optimum performance and the minimum guaranteed control efficiency for the emissions released through Emission Point DBJ-E.
**[45CSR13, R13-1596, 4.1.2]**

4.1.3. The Tank Farm Scrubber (DAG-C) shall be operated and maintained so to provide optimum performance and the minimum guaranteed control efficiency for the emissions released through Emission Point DAG-E. The permittee shall operate and maintain the Tank Farm Scrubber (DAG-C) in accordance to the following parameters:

4.1.3.1. Maintain the liquor flow rate at or above fifteen (15) gallons per minute, or 7,500 pounds per hour, during periods of time in which volatile organic compounds (VOC) are venting to the scrubber.

4.1.3.2. The formaldehyde concentration of the scrubber liquor shall be maintained at or below ten percent (10%) by weight. At such times when the concentration exceeds ten percent (10%), the scrubber liquid shall be drained and replaced with fresh demineralized water.

4.1.3.3. The maximum cooling liquid outlet temperature shall be 60°C (140°F).

4.1.3.4. Scrubber liquid shall be maintained at an adequate level in the system.
**[45CSR13, R13-1596, 4.1.3]**

4.1.4. The Condenser (DBK-C) shall be operated and maintained so to provide optimum performance and the minimum guaranteed control efficiency for the emissions released through Emission Point DBK-E. The permittee shall demonstrate proper operation of the condenser by maintaining a maximum cooling liquid outlet temperature of 60°C (140°F).
**[45CSR13, R13-1596, 4.1.4]**

4.1.5. The permittee shall operate and maintain the Baghouse (HTA-C) for the purpose of controlling particulate matter released through Emission Point HTA-E.
**[45CSR13, R13-1596, 4.1.5]**

4.1.6. The maximum hourly and annual emission rates through the emission points identified in Section 1.0 – *Formaldehyde* shall not exceed the emission rates documented as the Maximum Permitted Emission Rates in Appendix B.1. Compliance with the hourly particulate emission limits for emission point HTA-E shall demonstrate compliance with the less stringent 45CSR§7-4.1 hourly particulate emission limits.
**[45CSR13, R13-1596, 4.1.6 and APPENDIX A]**

4.1.7. The permitted facility shall comply with all applicable requirements of 45CSR7, with the exception of any more stringent limitations set forth in 4.1.6. The principal provisions of 45CSR7, applicable to the permitted facility, are:

4.1.7.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air form any process source operation which is greater than twenty (20) percent opacity, except as noted in 4.1.7.2 and 4.1.7.3.
**[45CSR§7-3.1]**

4.1.7.2. The provisions of 4.1.7.1 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]**

4.1.7.3. No person shall cause, suffer, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to 3.1.13 is required to have a full enclosure and be equipped with a particulate matter control device.
**[45CSR§7-3.7]**

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

*(HTA-E)* **[45CSR13, R13-1596, 4.1.7]**

4.1.8. The permitted facility shall comply with all applicable requirements of 45CSR21 – "Regulation to Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds."

4.1.8.1. For all sources identified in Section 1.0 - *Formaldehyde* and affected by WV Air Quality Permit R13-2617, compliance with the terms and conditions of R13-2167 shall be considered compliance with the applicable requirements of 45CSR21.

4.1.8.2. Compliance with 4.1.10 shall be considered compliance for all sources identified Section 1.0 - *Formaldehyde* and subject to the requirements of 45CSR§21-39.
**[45CSR13, R13-1596, 4.1.8]**

4.1.9. The permitted facility shall comply with all applicable requirements of 45CSR27 – "To Prevent and Control the Emissions of Toxic Air Pollutants." For all sources identified in Section 1.0 - *Formaldehyde* and affected by WV Air Quality Permit R13-2617, compliance with the terms and conditions of R13-2617 shall be considered compliance with the applicable requirements of 45CSR27.
**[45CSR13, R13-1596, 4.1.9]**

4.1.10. **Group 1 Process Vents.** The owner or operator of a Group 1 process vent shall reduce emissions of total organic hazardous air pollutants by 98 weight-percent or to a concentration of 20 parts per million by volume, whichever is less stringent. For combustion devices, the emissions reduction or concentration shall be calculated on a dry basis, corrected to 3-percent oxygen, and compliance can be determined by measuring either organic hazardous air pollutants or total organic carbon using the procedures in 40 C.F.R. §63.116. Compliance with the Group 1 Process Vent provisions of 40 C.F.R. 63, Subpart G for DAQ, DAR, and DAS shall be considered compliance with the provisions of 40 C.F.R. 60, Subpart III. *(DAQS, DARS, DASS)*

**[45CSR34; 40 C.F.R. §§63.110(d), 63.113(a)(2) and (a)(2)(i); 45CSR13, R13-1596, 4.1.10.b and 4.1.13]**

4.1.11. **Group 1 Storage Vessel (Fixed Roof and Internal Floating Roof).** For each Group 1 storage vessel storing a liquid for which the maximum true vapor pressure of the total organic hazardous air pollutants in the liquid is less than 76.6 kilopascals, the owner or operator shall reduce hazardous air pollutants emissions to the atmosphere by operating and maintaining a fixed roof and internal floating roof, as defined in 40 C.F.R. §63.111, in accordance with 4.1.11.1 through 4.1.11.6.
**[45CSR34; 40 C.F.R. §§63.119(a)(1) and 63.119(b); 45CSR13, R13-1596, 4.1.10.b]**

4.1.11.1. The internal floating roof shall be floating on the liquid surface at all times except when the floating roof must be supported by the leg supports during the periods specified in 4.1.11.1.a through 4.1.11.1.c.
**[45CSR34; 40 C.F.R. §63.119(b)(1); 45CSR13, R13-1596, 4.1.10.b]**

a. During an initial fill.
**[45CSR34; 40 C.F.R. §63.119(b)(1)(i); 45CSR13, R13-1596, 4.1.10.b]**

b. After the vessel has been completely emptied and degassed.
**[45CSR34; 40 C.F.R. §63.119(b)(1)(ii); 45CSR13, R13-1596, 4.1.10.b]**

c. When the vessel is completely emptied before being subsequently refilled.
**[45CSR34; 40 C.F.R. §63.119(b)(1)(iii); 45CSR13, R13-1596, 4.1.10.b]**

4.1.11.2. When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical.
**[45CSR34; 40 C.F.R. §63.119(b)(2); 45CSR13, R13-1596, 4.1.10.b]**

4.1.11.3. Each internal floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device shall consist of one of the devices listed in 4.1.11.3.a through 4.1.11.3.c.
**[45CSR34; 40 C.F.R. §63.119(b)(3); 45CSR13, R13-1596, 4.1.10.b]**

a. A liquid-mounted seal as defined in 40 C.F.R. §63.111.
**[45CSR34; 40 C.F.R. §63.119(b)(3)(i); 45CSR13, R13-1596, 4.1.10.b]**

b. A metallic shoe seal as defined in 40 C.F.R. §63.111.
**[45CSR34; 40 C.F.R. §63.119(b)(3)(ii); 45CSR13, R13-1596, 4.1.10.b]**

c. Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous seals.
**[45CSR34; 40 C.F.R. §63.119(b)(3)(iii); 45CSR13, R13-1596, 4.1.10.b]**

4.1.11.4. Automatic bleeder vents are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports.
**[45CSR34; 40 C.F.R. §63.119(b)(4); 45CSR13, R13-1596, 4.1.10.b]**

4.1.11.5. Each internal floating roof shall meet the specifications listed in 4.1.11.5.a through 4.1.11.5.g.
**[45CSR34; 40 C.F.R. §63.119(b)(5); 45CSR13, R13-1596, 4.1.10.b]**

a. Each opening in a noncontact internal floating roof except for the automatic bleeder vents (vacuum breaker vents) and rim space vents is to provide a projection below the liquid surface.
**[45CSR34; 40 C.F.R. §63.119(b)(5)(i); 45CSR13, R13-1596, 4.1.10.b]**

b. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover or lid. The cover or lid shall be equipped with a gasket.
**[45CSR34; 40 C.F.R. §63.119(b)(5)(ii); 45CSR13, R13-1596, 4.1.10.b]**

c. Each penetration of the internal floating roof for the purposes of sampling shall be a sample well. Each sample well shall have a slit fabric cover that covers at least 90 percent of the opening.
**[45CSR34; 40 C.F.R. §63.119(b)(5)(iii); 45CSR13, R13-1596, 4.1.10.b]**

d. Each automatic bleeder vent shall be gasketed.
**[45CSR34; 40 C.F.R. §63.119(b)(5)(iv); 45CSR13, R13-1596, 4.1.10.b]**

e. Each rim space vent shall be gasketed.
**[45CSR34; 40 C.F.R. §63.119(b)(5)(v); 45CSR13, R13-1596, 4.1.10.b]**

f. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.
**[45CSR34; 40 C.F.R. §63.119(b)(5)(vi); 45CSR13, R13-1596, 4.1.10.b]**

g. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
**[45CSR34; 40 C.F.R. §63.119(b)(5)(vii); 45CSR13, R13-1596, 4.1.10.b]**

4.1.11.6. Each cover or lid on any opening in the internal floating roof shall be closed (i.e., no visible gaps), except when the cover or lid must be open for access. Covers on each access hatch and each gauge float well shall be bolted or fastened so as to be air-tight when they are closed. Rim space vents are to be set open only when the internal floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.
**[45CSR34; 40 C.F.R. §63.119(b)(6); 45CSR13, R13-1596, 4.1.10.b]**

Compliance with the Group 1 Storage Vessel provisions of 40 C.F.R. 63, Subpart G provided above for DAB and DAC shall be considered compliance with the storage vessel provisions of 40 C.F.R. 60, Subpart Kb. *(DABS and DACS)*
**[45CSR34; 40 C.F.R. §63.110(b); 45CSR13, R13-1596, 4.1.11]**

4.1.12. **Group 2 Storage Vessels.** For each Group 2 storage vessel, the owner or operator shall comply with the recordkeeping requirements in 4.4.8. Compliance with the Group 2 Storage Vessel provisions of 40 C.F.R. 63, Subpart G for DAE and DAF shall be considered compliance with the storage vessel provisions of 40 C.F.R. 60, Subpart Kb. *(DAES and DAFS)*
**[45CSR34; 40 C.F.R. §§63.110(b) and 63.119(a)(3); 45CSR13, R13-1596, 4.1.10.b and 4.1.11]**

4.1.13. **Group 2 Process Wastewater Streams.** For wastewater streams that are Group 2 for 40 C.F.R. 63, Subpart G, Table 9 compounds, the owner or operator shall comply with the recordkeeping requirements specified in 4.4.11. *(DOPS)*
**[45CSR34; 40 C.F.R. §63.132(a)(3); 45CSR13, R13-1596, 4.1.10.b]**

4.1.14. **Heat Exchange Systems.** Owners and operators of sources subject to 40 C.F.R. 63, Subpart F shall monitor each heat exchange system used to cool process equipment in a chemical manufacturing process unit meeting the conditions of 40 C.F.R. §§63.100(b)(1) through (b)(3), according to the provisions in 4.1.14.1. Whenever a leak is detected, the owner or operator shall comply with the requirements in 4.1.14.2.
**[45CSR34; 40 C.F.R. §63.104(a); 45CSR13, R13-1596, 4.1.10.a]**

4.1.14.1. The owner or operator who elects to comply by monitoring the cooling water for the presence of one or more organic hazardous air pollutants or other representative substances whose presence in cooling water indicates a leak shall comply with the requirements specified in 4.1.14.1.a through 4.1.14.1.f. The cooling water shall be monitored for total hazardous air pollutants, total volatile organic compounds, total organic carbon, one or more speciated HAP compounds, or other representative substances that would indicate the presence of a leak in the heat exchange system. **[45CSR34; 40 C.F.R. §63.104(b); 45CSR13, R13-1596, 4.1.10.a]**

a. The cooling water shall be monitored monthly for the first 6 months of operation under the MACT requirements and quarterly thereafter to detect leaks.
**[45CSR34; 40 C.F.R. §63.104(b)(1); 45CSR13, R13-1596, 4.1.10.a]**

b. For recirculating heat exchange systems (cooling tower systems), the monitoring of speciated hazardous air pollutants or total hazardous air pollutants refers to the hazardous air pollutants listed in table 4 of 40 C.F.R. 63, Subpart F.
**[45CSR34; 40 C.F.R. §63.104(b)(2); 45CSR13, R13-1596, 4.1.10.a]**

c. The concentration of the monitored substance(s) in the cooling water shall be determined using any EPA-approved method listed in part 136 of Chapter I as long as the method is sensitive to concentrations as low as 10 parts per million and the same method is used for both entrance and exit samples. Alternative methods may be used upon approval by the Administrator.
**[45CSR34; 40 C.F.R. §63.104(b)(3); 45CSR13, R13-1596, 4.1.10.a]**

d. The samples shall be collected either at the entrance and exit of each heat exchange system or at locations where the cooling water enters and exits each heat exchanger or any combination of heat exchangers.
**[45CSR34; 40 C.F.R. §63.104(b)(4); 45CSR13, R13-1596, 4.1.10.a]**

i. For samples taken at the entrance and exit of recirculating heat exchange systems, the entrance is the point at which the cooling water leaves the cooling tower prior to being returned to the process equipment and the exit is the point at which the cooling water is introduced to the cooling tower after being used to cool the process fluid.
**[45CSR34; 40 C.F.R. §63.104(b)(4)(i); 45CSR13, R13-1596, 4.1.10.a]**

ii. For samples taken at the entrance and exit of each heat exchanger or any combination of heat exchangers in chemical manufacturing process units, the entrance is the point at which the cooling water enters the individual heat exchanger or group of heat exchangers and the exit is the point at which the cooling water exits the heat exchanger or group of heat exchangers.
**[45CSR34; 40 C.F.R. §63.104(b)(4)(iii); 45CSR13, R13-1596, 4.1.10.a]**

e. A minimum of three sets of samples shall be taken at each entrance and exit as defined in 4.1.14.1.d. The average entrance and exit concentrations shall then be calculated. The concentration shall be corrected for the addition of any make-up water or for any evaporative losses, as applicable.
**[45CSR34; 40 C.F.R. §63.104(b)(5); 45CSR13, R13-1596, 4.1.10.a]**

f. A leak is detected if the exit mean concentration is found to be greater than the entrance mean using a one-sided statistical procedure at the 0.05 level of significance and the amount by which it is greater is at least 1 part per million or 10 percent of the entrance mean, whichever is greater.
**[45CSR34; 40 C.F.R. §63.104(b)(6); 45CSR13, R13-1596, 4.1.10.a]**

4.1.14.2. If a leak is detected according to the criteria in 4.1.14.1, the owner or operator shall comply with the requirements in 4.1.14.2.a and 4.1.14.2.b., except as provided in 4.1.14.3.
**[45CSR34; 40 C.F.R. §63.104(d); 45CSR13, R13-1596, 4.1.10.a]**

a. The leak shall be repaired as soon as practical but not later than 45 calendar days after the owner or operator receives results of monitoring tests indicating a leak. The leak shall be repaired unless the owner or operator demonstrates that the results are due to a condition other than a leak.
**[45CSR34; 40 C.F.R. §63.104(d)(1); 45CSR13, R13-1596, 4.1.10.a]**

b. Once the leak has been repaired, the owner or operator shall confirm that the heat exchange system has been repaired within 7 calendar days of the repair or startup, whichever is later.
**[45CSR34; 40 C.F.R. §63.104(d)(2); 45CSR13, R13-1596, 4.1.10.a]**

4.1.14.3. Delay of repair of heat exchange systems for which leaks have been detected is allowed if the equipment is isolated from the process. Delay of repair is also allowed if repair is technically infeasible without a shutdown and any one of the conditions in 4.1.14.3.a or 4.1.14.3.b is met. All time periods in 4.1.14.3.a and 4.1.14.3.b shall be determined from the date when the owner or operator determines that delay of repair is necessary.
**[45CSR34; 40 C.F.R. §63.104(e); 45CSR13, R13-1596, 4.1.10.a]**

a. If a shutdown is expected within the next 2 months, a special shutdown before the planned shutdown is not required.
**[45CSR34; 40 C.F.R. §63.104(e)(1); 45CSR13, R13-1596, 4.1.10.a]**

b. If a shutdown is not expected within the next 2 months, the owner or operator may delay repair as provided in 4.1.14.3.b.i or 4.1.14.3.b.ii. Documentation of a decision to delay repair shall state the reasons repair was delayed and shall specify a schedule for completing the repair as soon as practical.
**[45CSR34; 40 C.F.R. §63.104(e)(2); 45CSR13, R13-1596, 4.1.10.a]**

i. If a shutdown for repair would cause greater emissions than the potential emissions from delaying repair, the owner or operator may delay repair until the next shutdown of the process equipment associated with the leaking heat exchanger. The owner or operator shall document the basis for the determination that a shutdown for repair would cause greater emissions than the emissions likely to result from delaying repair as specified in 4.1.14.3.b.i.A and 4.1.14.3.b.i.B.
**[45CSR34; 40 C.F.R. §63.104(e)(2)(i); 45CSR13, R13-1596, 4.1.10.a]**

A. The owner or operator shall calculate the potential emissions from the leaking heat exchanger by multiplying the concentration of total hazardous air pollutants listed in table 4 of 40 C.F.R. 63, Subpart F in the cooling water from the leaking heat exchanger by the flowrate of the cooling water from the leaking heat exchanger by

the expected duration of the delay. The owner or operator may calculate potential emissions using total organic carbon concentration instead of total hazardous air pollutants listed in table 4 of 40 C.F.R. 63, Subpart F.
**[45CSR34; 40 C.F.R. §63.104(e)(2)(i)(A); 45CSR13, R13-1596, 4.1.10.a]**

B. The owner or operator shall determine emissions from purging and depressurizing the equipment that will result from the unscheduled shutdown for the repair. **[45CSR34; 40 C.F.R. §63.104(e)(2)(i)(B); 45CSR13, R13-1596, 4.1.10.a]**

ii. If repair is delayed for reasons other than those specified in 4.1.14.3.b.i, the owner or operator may delay repair up to a maximum of 120 calendar days. The owner shall demonstrate that the necessary parts or personnel were not available.
**[45CSR34; 40 C.F.R. §63.104(e)(2)(ii); 45CSR13, R13-1596, 4.1.10.a]**
*(DAOS)*

4.1.15. **Maintenance Wastewater.** Each owner or operator of a source subject to 40 C.F.R. 63, Subpart F shall comply with the requirements of 4.1.15.1 through 4.1.15.3 for maintenance wastewaters containing those organic HAP's listed in table 9 of 40 C.F.R. 63, Subpart G.
**[45CSR34; 40 C.F.R. §63.105(a); 45CSR13, R13-1596, 4.1.10.a]**

4.1.15.1. The owner or operator shall prepare a description of maintenance procedures for management of wastewaters generated from the emptying and purging of equipment in the process during temporary shutdowns for inspections, maintenance, and repair (i.e., a maintenance-turn-around) and during periods which are not shutdowns (i.e., routine maintenance). The descriptions shall:
**[45CSR34; 40 C.F.R. §63.105(b); 45CSR13, R13-1596, 4.1.10.a]**

a. Specify the process equipment or maintenance tasks that are anticipated to create wastewater during maintenance activities.
**[45CSR34; 40 C.F.R. §63.105(b)(1); 45CSR13, R13-1596, 4.1.10.a]**

b. Specify the procedures that will be followed to properly manage the wastewater and control organic HAP emissions to the atmosphere; and
**[45CSR34; 40 C.F.R. §63.105(b)(2); 45CSR13, R13-1596, 4.1.10.a]**

c. Specify the procedures to be followed when clearing materials from process equipment. **[45CSR34; 40 C.F.R. §63.105(b)(3); 45CSR13, R13-1596, 4.1.10.a]**

4.1.15.2. The owner or operator shall modify and update the information required by 4.1.15.1 as needed following each maintenance procedure based on the actions taken and the wastewaters generated in the preceding maintenance procedure.
**[45CSR34; 40 C.F.R. §63.105(c); 45CSR13, R13-1596, 4.1.10.a]**

4.1.15.3. The owner or operator shall implement the procedures described in 4.1.15.1 and 4.1.15.2 as part of the start-up, shutdown, and malfunction plan required under 40 C.F.R. §63.6(e)(3).
**[45CSR34; 40 C.F.R. §63.105(d); 45CSR13, R13-1596, 4.1.10.a]**

4.1.16. **40 C.F.R. 63, Subpart H Requirements for Equipment Leaks.** The permittee shall comply with all applicable standards of 40 C.F.R. 63, Subpart H – "National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks." The pertinent equipment leak standards include 40 C.F.R. §§63.162 (Standards: General), 63.163 (Standards: Pumps in light liquid service), 63.165 (Standards: Pressure

relief devices in gas/vapor service), 63.166 (Standards: Sampling connection systems), 63.167 (Standards: Open-ended vales or lines), 63.168 (Standards: Valves in gas/vapor service and in light liquid service), 63.169 (Standards: Pumps, valves, connectors, and agitators in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service), 63.170 (Standards: Surge control vessels and bottoms receivers), 63.171 (Standards: Delay of repair), 63.172 (Standards: Closed-vent systems and control devices), and 63.174 (Standards: Connectors in gas/vapor service and in light liquid service).
**[45CSR34; 40 C.F.R. 63, Subpart H; 40 C.F.R. §§63.162, 63.163, 63.165, 63.166, 63.167, 63.168, 63.169, 63.170, 63.171, 63.172, and 63.174; 45CSR13, R13-1596, 4.1.10.c]**

4.1.17. **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 – *Formaldehyde* 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, R13-1596, 4.1.14; 45CSR§13-5.11]**

4.1.18. **40 C.F.R. 60, Subpart VV Requirements for Equipment Leaks.** The permittee shall comply with all applicable standards of 40 C.F.R. 60, Subpart VV - "Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry." If a process unit subject to the provisions of 40 C.F.R. 63, Subpart H has equipment to which this subpart does not apply, but which is subject to 40 C.F.R. 60, Subpart VV, the owner or operator may elect to apply 40 C.F.R. 63, Subpart H to all such equipment in the process unit. If the owner or operator elects this method of compliance, all VOC in such equipment shall be considered, for purposes of applicability and compliance with 40 C.F.R. 63, Subpart H as if it were organic hazardous air pollutant (HAP). Compliance with the leak detection and repair (LDAR) provisions of 40 C.F.R. 63, Subpart H shall be considered compliance with the LDAR requirements of 40 C.F.R. 60, Subpart VV."
**[45CSR16; 45CSR34; 40 C.F.R. 60, Subpart VV; 40 C.F.R. §63.160(c)(1); 45CSR13, R13-1596, 4.1.12]**

## 4.2. Monitoring Requirements

4.2.1. For the purpose of determining compliance with 4.1.2, the permittee shall provide continuous monitoring of the inlet and discharge temperatures of the Catalytic Converter (DBJ-C).
**[45CSR13, R13-1596, 4.2.1]**

4.2.2. For the purpose of determining compliance with 4.1.3, the permittee shall monitor the following process parameters of the Tank Farm Scrubber (DAG-C):

4.2.2.1. Liquor flow rate and temperature shall be monitored during periods of time in which VOC emissions are venting to the scrubber.

4.2.2.2. Formaldehyde concentration of the scrubber liquor shall be monitored at a minimum rate of once per week.

4.2.2.3. Liquid level in the scrubber shall be monitored at a minimum of once per 24 hour period.
**[45CSR13, R13-1596, 4.2.2]**

4.2.3. For the purpose of demonstrating compliance with 4.1.4, the permittee shall record the temperature of the outlet cooling fluid from the condenser (DBK-C) at least once per day. Record of the identity of the person providing the record of the data should also be maintained with the reading of the temperature.
**[45CSR13, R13-1596, 4.2.3]**

4.2.4. For the purpose of determining compliance with the emission limitations established in 4.1.6, the permittee shall monitor the material transfer and production rates, and the associated process conditions necessary for calculating actual hourly and annual emissions from the operation of all affected sources identified in Section 4.1.6.
**[45CSR13, R13-1596, 4.2.4]**

4.2.5. For the purpose of determining compliance with the opacity limits set forth in 4.1.7, the permittee shall conduct opacity monitoring for all emission points and equipment subject to an opacity limit under 45CSR7 and for which particulate emission limits have been set in 4.1.6.

Monitoring shall be conducted at least once per month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed during periods of operation of emission sources that vent from the referenced emission points for a sufficient time interval to determine if there is a visible emission. If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct a visual emission evaluation per 45CSR7A within three (3) days of the first identification of visible emissions. A 45CSR7A evaluation shall not be required if the visible emission condition is corrected within seventy-two (72) hours after the visible emission and the sources are operating at normal conditions.
*(HTA-E)* **[45CSR13, R13-1596, 4.2.5]**

4.2.6. **Group 1 Process Vents.** To demonstrate compliance with 4.1.10 using a catalytic incinerator, the permittee shall install temperature monitoring devices in the gas stream immediately before and after the catalyst bed. These temperature monitoring devices shall be equipped with a continuous recorder. All monitoring equipment 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.

The monitoring parameter ranges for the daily average upstream temperature and temperature difference across the catalyst bed were established based on methanol feed rate and submitted as part of the revised Notification of Compliance Status Report dated May 16, 2005.

*(DAQS, DARS, DASS)* [**45CSR34; 40 C.F.R. §§63.114(a), (a)(1), and (a)(1)(ii); 40 C.F.R. §63.117(f); 45CSR13, R13-1596, 4.2.6; Revised Notification of Compliance Status Report dated May 16, 2005]**

4.2.7. **Group 1 Process Vents.** The permittee shall comply with 4.2.7.1 for any bypass line between the origin of the gas stream (i.e., at an air oxidation reactor, distillation unit, or reactor as identified in 40 C.F.R. §63.107(b)) and the point where the gas stream reaches the process vent, as described in 40 C.F.R. §63.107, that could divert the gas stream directly to the atmosphere. Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes are not subject to this requirement.
**[45CSR34; 40 C.F.R. §63.114(d); 45CSR13, R13-1596, 4.2.6]**

4.2.7.1. Properly install, maintain and operate a flow indicator that takes a reading at least once every 15 minutes. Records shall be generated as specified in 4.4.6.3. The flow indicator shall be installed at the entrance to any by-pass line that could divert the gas stream to the atmosphere.
**[45CSR34; 40 C.F.R. §63.114(d)(1); 45CSR13, R13-1596, 4.2.6]** *(DAQS, DARS, DASS)*

4.2.8. **Group 1 Storage Vessel (Fixed Roof and Internal Floating Roof).** To demonstrate compliance with 4.1.11 (storage vessel equipped with a fixed roof and internal floating roof), the owner or operator shall comply with the requirements of 4.2.8.1 through 4.2.8.7.
**[45CSR34; 40 C.F.R. §63.120(a); 45CSR13, R13-1596, 4.2.6]**

4.2.8.1. The owner or operator shall visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), according to the schedule specified in 4.2.8.2 and 4.2.8.3.
**[45CSR34; 40 C.F.R. §63.120(a)(1); 45CSR13, R13-1596, 4.2.6]**

4.2.8.2. For vessels equipped with a single-seal system, the owner or operator shall perform the inspections specified in 4.2.8.2.a and 4.2.8.2.b.
**[45CSR34; 40 C.F.R. §63.120(a)(2); 45CSR13, R13-1596, 4.2.6]**

a. Visually inspect the internal floating roof and the seal through manholes and roof hatches on the fixed roof at least once every 12 months.
**[45CSR34; 40 C.F.R. §63.120(a)(2)(i); 45CSR13, R13-1596, 4.2.6]**

b. Visually inspect the internal floating roof, the seal, gaskets, slotted membranes, and sleeve seals (if any) each time the storage vessel is emptied and degassed, and at least once every ten years.
**[45CSR34; 40 C.F.R. §63.120(a)(2)(ii); 45CSR13, R13-1596, 4.2.6]**

4.2.8.3. For vessels equipped with a double-seal system as specified in 4.1.11.3.c, the owner or operator shall perform either the inspection required in 4.2.8.3.a or the inspections required in both paragraphs 4.2.8.3.b and 4.2.8.3.c.
**[45CSR34; 40 C.F.R. §63.120(a)(3); 45CSR13, R13-1596, 4.2.6]**

a. The owner or operator shall visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes, and sleeve seals (if any) each time the storage vessel is emptied and degassed and at least once every 5 years; or
**[45CSR34; 40 C.F.R. §63.120(a)(3)(i); 45CSR13, R13-1596, 4.2.6]**

b. The owner or operator shall visually inspect the internal floating roof and the secondary seal through manholes and roof hatches on the fixed roof at least once every 12 months.
**[45CSR34; 40 C.F.R. §63.120(a)(3)(ii); 45CSR13, R13-1596, 4.2.6]**

c. Visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes, and sleeve seals (if any) each time the vessel is emptied and degassed and at least once every 10 years.
**[45CSR34; 40 C.F.R. §63.120(a)(3)(iii); 45CSR13, R13-1596, 4.2.6]**

4.2.8.4. If during the inspections required by 4.2.8.2.a or 4.2.8.3.b, the internal floating roof is not resting on the surface of the liquid inside the storage vessel and is not resting on the leg supports; or there is liquid on the floating roof; or the seal is detached; or there are holes or tears in the seal fabric; or there are visible gaps between the seal and the wall of the storage vessel, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 calendar days. If a failure that is detected during inspections required by 4.2.8.2.a or 4.2.8.3.b cannot be

repaired within 45 calendar days and if the vessel cannot be emptied within 45 calendar days, the owner or operator may utilize up to 2 extensions of up to 30 additional calendar days each. Documentation of a decision to utilize an extension shall include a description of the failure, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be emptied as soon as practical.
**[45CSR34; 40 C.F.R. §63.120(a)(4); 45CSR13, R13-1596, 4.2.6]**

4.2.8.5. Except as provided in 4.2.8.6, for all the inspections required by 4.2.8.2.b, 4.2.8.3.a, and 4.2.8.3.c, the owner or operator shall notify the Administrator in writing at least 30 calendar days prior to the refilling of each storage vessel to afford the Administrator the opportunity to have an observer present.
**[45CSR34; 40 C.F.R. §63.120(a)(5); 45CSR13, R13-1596, 4.2.6]**

4.2.8.6. If the inspection required by 4.2.8.2.b, 4.2.8.3.a, or 4.2.8.3.c is not planned and the owner or operator could not have known about the inspection 30 calendar days in advance of refilling the vessel, the owner or operator shall notify the Administrator at least 7 calendar days prior to the refilling of the storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, the notification including the written documentation may be made in writing and sent so that it is received by the Administrator at least 7 calendar days prior to refilling.
**[45CSR34; 40 C.F.R. §63.120(a)(6); 45CSR13, R13-1596, 4.2.6]**

4.2.8.7. If during the inspections required by 4.2.8.2.b, 4.2.8.3.a, or 4.2.8.3.c, the internal floating roof has defects; or the primary seal has holes, tears, or other openings in the seal or the seal fabric; or the secondary seal has holes, tears, or other openings in the seal or the seal fabric; or the gaskets no longer close off the liquid surface from the atmosphere; or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with organic HAP.
**[45CSR34; 40 C.F.R. §63.120(a)(7); 45CSR13, R13-1596, 4.2.6]** *(DABS and DACS)*

## 4.3. Testing Requirements

4.3.1. **40 C.F.R. 63, Subpart H Testing Requirements for Equipment Leaks.** The permittee shall comply with all applicable test methods and procedures of 40 C.F.R. 63, Subpart H – "National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks" as specified in 40 C.F.R. §63.180 (Test methods and procedures).
**[45CSR34; 40 C.F.R. 63, Subpart H; 40 C.F.R. §63.180; 45CSR13, R13-1596, 4.3.3]**

4.3.2. **40 C.F.R. 60, Subpart VV Testing Requirements for Equipment Leaks.** The permittee shall comply with all applicable test methods and procedures of 40 C.F.R. 63, Subpart VV – "Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry" as specified in 40 C.F.R. §60.485 (Test methods and procedures). Compliance with the leak detection and repair (LDAR) provisions of 40 C.F.R. 63, Subpart H shall be considered compliance with the LDAR requirements of 40 C.F.R. 60, Subpart VV.
**[45CSR16; 45CSR34; 40 C.F.R. 60, Subpart VV; 40 C.F.R. §60.485; 40 C.F.R. §63.160(c)(1); 45CSR13, R13-1596, 4.1.12]**

## 4.4. Recordkeeping Requirements

4.4.1. For the purpose of demonstrating compliance with the monitoring requirements set forth in 4.2.1, the permittee shall maintain records of all monitoring data required to demonstrate proper operation of the Catalytic Converter (DBJ-C). The records shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on-site. The remaining three (3) years of data may be maintained off-site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on computer, on computer floppy disks, CDs, or DVDs, or magnetic tape disks), on microfilm, or on microfiche.
**[45CSR13, R13-1596, 4.4.4]**

4.4.2. For the purpose of demonstrating compliance with the monitoring requirements set forth in 4.2.2, the permittee shall maintain records of all monitoring data required to demonstrate proper operating of the Tank Farm Scrubber (DAG-C). The records shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on-site. The remaining three (3) years of data may be maintained off-site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on computer, on computer floppy disks, CDs, or DVDs, or magnetic tape disks), on microfilm, or on microfiche.
**[45CSR13, R13-1596, 4.4.5]**

4.4.3. For the purpose of demonstrating compliance with the monitoring requirements set forth in 4.2.3, the permittee shall maintain records of all monitoring data required to demonstrate proper operating of the Condenser (DBK-C). The records shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on-site. The remaining three (3) years of data may be maintained off-site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on computer, on computer floppy disks, CDs, or DVDs, or magnetic tape disks), on microfilm, or on microfiche.
**[45CSR13, R13-1596, 4.4.6]**

4.4.4. For the purposes of demonstrating compliance with the emission limits set forth in 4.1.6, the hourly and annual emission rates shall be calculated and records maintained using the following methods:

a. Compliance with all hourly emission limits shall be based on the calculated monthly actual emission rate for the affected source divided by the actual operating hours of the affected source within the calculated period.

b. Compliance with all annual emission limits shall be determined using a 12-month rolling total. A rolling yearly total shall mean the sum of emissions at any given time for the previous twelve (12) consecutive calendar months.

**[45CSR13, R13-1596, 4.4.7; 45CSR§30-5.1.c]**

4.4.5. The permittee shall maintain records of all monitoring data required by 4.2.5, documenting the date and time of each visible emission check, the emission point or equipment identification number, the name or means of identification of the responsible observer, the results of the check, and, if necessary, all corrective actions taken. Should a visible 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 an emission unit out of service during the normal monthly evaluation, the record of observation may note "out of service" (OOS) or equivalent. These records shall be maintained according to the conditions specified in 40 C.F.R. 63.10(b)(1).
**[45CSR13, R13-1596, 4.4.8]**

4.4.6. **Group 1 Process Vents.** To demonstrate compliance with 4.1.10 for Group 1 process vents using a catalytic incinerator, the permittee shall keep the following records up-to-date and readily accessible: **[45CSR34; 40 C.F.R. §63.118(a); 45CSR13, R13-1596, 4.4.10]**

4.4.6.1. Continuous records of the equipment operating parameters specified to be monitored under 4.2.6 and listed in table 3 of 40 C.F.R. 63, Subpart G.

TABLE 3. – PROCESS VENTS – MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS FOR COMPLYING WITH 98 WEIGHT-PERCENT REDUCTION OF TOTAL ORGANIC HAZARDOUS AIR POLUTANTS EMISSIONS OR A LIMIT OF 20 PARTS PER MILLION BY VOLUME

| Control device | Parameters to be monitored | Recordkeeping and reporting requirements for monitored parameters |
|---|---|---|
| Catalytic Incinerator | Temperature upstream and downstream of the catalyst bed [63.114(a)(1)(ii)]. | 1. Continuous records[1]. |
| | | 2. Record and report the upstream and downstream temperatures and the temperature difference across the catalyst bed averaged over the full period of the performance test – NCS[2]. |
| | | 3. Record the daily average upstream temperature and temperature difference across the catalyst bed for each operating day[3]. |
| | | 4. Report all daily average upstream temperatures that are outside the range established in the NCS or operating permit – PR[4]. |
| | | 5. Report all daily average temperature differences across the catalyst bed that are outside the range established in the NCS or operating permit – PR[4]. |
| | | 6. Report all operating days when insufficient monitoring data are collected[5]. |
| All control devices | Presence of flow diverted to the atmosphere from the control device [63.114(d)(1)]. | 1. Hourly records of whether the flow indicator was operating and whether diversion was detected at any time during each hour. |
| | | 2. Record and report the times and durations of all periods when the vent stream is diverted through a bypass line or the monitor is not operating – PR. |

[1]"Continuous records" is defined in 40 C.F.R. §63.111.
[2]NCS = Notification of Compliance Status as described in 40 C.F.R. §63.152 and submitted on September 18, 1997, or any amendments thereto.
[3]The daily average is the average of all recorded parameter values for the operating day. If all recorded values during an operating day are within the range established in the NCS or operating permit, a statement to this effect can be recorded instead of the daily average.
[4]PR = Periodic Reports described in 40 C.F.R. §63.152.
[5]The periodic reports shall include the duration of periods when monitoring data is not collected for each excursion as defined in 40 C.F.R. §63.152(c)(2)(ii)(A) of 40 C.F.R. 60, Subpart G.
**[45CSR34; 40 C.F.R. §63.118(a)(1) and Table 3 of 40 C.F.R. 63, Subpart G; 45CSR13, R13-1596, 4.4.10]**

4.4.6.2. Records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in 40 C.F.R. §63.152(f).
**[45CSR34; 40 C.F.R. §63.118(a)(2); 45CSR13, R13-1596, 4.4.10]**

4.4.6.3. Hourly records of whether the flow indicator specified under 4.2.7.1 was operating and whether a diversion was detected at any time during the hour, as well as records of the times and durations of all periods when the gas stream is diverted to the atmosphere or the monitor is not operating. **[45CSR34; 40 C.F.R. §63.118(a)(3); 45CSR13, R13-1596, 4.4.10]** *(DAQS, DARS, DASS)*

4.4.7. **Group 1 Process Vents.** Each owner or operator subject to the control provisions for Group 1 process vents in 4.1.10 shall:
**[45CSR34; 40 C.F.R. §63.117(a); 45CSR13, R13-1596, 4.4.10]**

4.4.7.1. Keep an up-to-date, readily accessible record of the data specified in 4.4.7.1.a and 4.4.7.1.b submitted as part of the Notification of Compliance Status report dated September 18, 1997 or any amendments thereto.
**[45CSR34; 40 C.F.R. §63.117(a)(1); 45CSR13, R13-1596, 4.4.10]**

a. The parameter monitoring results for catalytic incinerators specified in Table 3 of Subpart G, and averaged over the same period of the performance testing;
**[45CSR34; 40 C.F.R. §63.117(a)(4)(i); 45CSR13, R13-1596, 4.4.10]**

b. The percent reduction of organic HAP or TOC achieved by the incinerator determined as specified in 40 C.F.R. §63.116(c), or the concentration of organic HAP or TOC (parts per million by volume, by compound) determined as specified in 40 C.F.R. §63.116(c) at the outlet of the incinerator on a dry basis corrected to 3 percent oxygen.
**[45CSR34; 40 C.F.R. §63.117(a)(4)(ii); 45CSR13, R13-1596, 4.4.10]** *(DAQS, DARS, DASS)*

4.4.8. **Group 1 and Group 2 Storage Vessels.** Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. *(DABS, DACS, DAES, and DAFS)*
**[45CSR34; 40 C.F.R. §63.123(a); 45CSR13, R13-1596, 4.4.10]**

4.4.9. **Group 1 Storage Vessel (Fixed Roof and Internal Floating Roof).** An owner or operator who elects to comply with 4.1.11 shall keep a record that each inspection required by 4.2.8 was performed. *(DABS and DACS)*
**[45CSR34; 40 C.F.R. §63.123(c); 45CSR13, R13-1596, 4.4.10]**

4.4.10. **Group 1 Storage Vessel (Fixed Roof and Internal Floating Roof)**. An owner or operator who elects to utilize an extension in emptying a storage vessel in accordance with 4.2.8.4, shall keep in a readily accessible location the documentation specified in 4.2.8.4. *(DABS and DACS)*
**[45CSR34; 40 C.F.R. §63.123(g); 45CSR13, R13-1596, 4.4.10]**

4.4.11. **Group 2 Process Wastewater Streams.** The owner or operator shall keep in a readily accessible location the records specified in 4.4.11.1 through 4.4.11.4.
**[45CSR34; 40 C.F.R. §63.147(b)(8); 45CSR13, R13-1596, 4.4.10]**

4.4.12.1. Process unit identification and description of the process unit.
**[45CSR34; 40 C.F.R. §63.147(b)(8)(i); 45CSR13, R13-1596, 4.4.10]**

4.4.12.2. Stream identification code.
**[45CSR34; 40 C.F.R. §63.147(b)(8)(ii); 45CSR13, R13-1596, 4.4.10]**

4.4.12.3 For existing sources, concentration of 40 C.F.R. 63, Subpart G, Table 9 compound(s) in parts per million, by weight. Include documentation of the methodology used to determine the concentration.
**[45CSR34; 40 C.F.R. §63.147(b)(8)(iii); 45CSR13, R13-1596, 4.4.10]**

4.4.12.4. Flow rate in liter per minute.
**[45CSR34; 40 C.F.R. §63.147(b)(8)(iv); 45CSR13, R13-1596, 4.4.10]**
*(DOPS)*

4.4.12. **Heat Exchange Systems.** The owner or operator shall retain the records identified in 4.4.12.1 through 4.4.12.3 as specified in 40 C.F.R. §63.103(c)(1).
**[45CSR34; 40 C.F.R. §63.104(f)(1); 45CSR13, R13-1596, 4.4.9]**

4.4.12.1. Monitoring data required by 4.1.14 indicating a leak and the date when the leak was detected, and if demonstrated not to be a leak, the basis for that determination:
**[45CSR34; 40 C.F.R. §63.104(f)(1)(i); 45CSR13, R13-1596, 4.4.9]**

4.4.12.2. The dates of efforts to repair leaks; and
**[45CSR34; 40 C.F.R. §63.104(f)(1)(iii); 45CSR13, R13-1596, 4.4.9]**

4.4.12.3. The method or procedure used to confirm repair of a leak and the date repair was confirmed.
**[45CSR34; 40 C.F.R. §63.104(f)(1)(iv); 45CSR13, R13-1596, 4.4.9]**
*(DAOS)*

4.4.13. **Maintenance Wastewater.** The owner or operator shall maintain a record of the information required by 4.1.15.1 and 4.1.15.2 as part of the start-up, shutdown, and malfunction plan required under 40 C.F.R. §63.6(e)(3).
**[45CSR34; 40 C.F.R. §63.105(e); 45CSR13, R13-1596, 4.4.9]**

4.4.14. **40 C.F.R. 63, Subpart H Recordkeeping Requirements for Equipment Leaks.** The permittee shall comply with all applicable recordkeeping requirements of 40 C.F.R. 63, Subpart H – "National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks" as specified in 40 C.F.R. §63.181 (Recordkeeping requirements).
**[45CSR34; 40 C.F.R. 63, Subpart H; 40 C.F.R. §63.181; 45CSR13, R13-1596, 4.4.11]**

4.4.15. **40 C.F.R. 60, Subpart VV Recordkeeping Requirements for Equipment Leaks.** The permittee shall comply with all applicable recordkeeping requirements of 40 C.F.R. 63, Subpart VV – "Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry" as specified in 40 C.F.R. §60.486 (Recordkeeping requirements). Compliance with the leak detection and repair (LDAR) provisions of 40 C.F.R. 63, Subpart H shall be considered compliance with the LDAR requirements of 40 C.F.R. 60, Subpart VV.
**[45CSR16; 45CSR34; 40 C.F.R. 60, Subpart VV; 40 C.F.R. §60.486; 40 C.F.R. §63.160(c)(1); 45CSR13, R13-1596, 4.1.12]**

## 4.5. Reporting Requirements

4.5.1. The permittee shall submit Periodic Reports as described in 40 C.F.R. §63.152(c).
**[45CSR34; 40 C.F.R. §§63.152(a)(4) and 63.152(c); 45CSR13, R13-1596, 4.5.2]**

4.5.2. The permittee shall submit reports of start-up, shutdown, and malfunction required by 40 C.F.R. §63.10(d)(5). The start-up, shutdown and malfunction reports may be submitted on the same schedule as the Periodic Reports required under 40 C.F.R. §63.152(c).
**[45CSR34; 40 C.F.R. §§63.152(a)(5) and 63.152(d)(1); 45CSR13, R13-1596, 4.5.2]**

4.5.3. **Group 1 Process Vents.** If any subsequent TRE determinations or performance tests are conducted after submittal of the Notification of Compliance Status on September 18, 1997, the data in 4.4.7.1.a and 4.4.7.1.b shall be reported in the next Periodic Report as specified in 40 C.F.R. §63.152(c). *(DAQS, DARS, DASS)* **[45CSR34; 40 C.F.R. §63.117(a)(3); 45CSR13, R13-1596, 4.5.2]**

4.5.4. **Group 1 Process Vents.** The permittee shall submit to the Administrator Periodic Reports of the following recorded information according to the schedule in 40 C.F.R. §63.152(c).
[**45CSR34; 40 C.F.R. §§63.118(f), 63.152(a), 63.152(a)(4), and 63.152(c); 45CSR13, R13-1596, 4.5.2]**

4.5.4.1. Reports of daily average values of monitored parameters for all operating days when the daily average values recorded under 4.4.6 were outside the ranges established in the Notification of Compliance Status or operating permit.
[**45CSR34; 40 C.F.R. §63.118(f)(1); 45CSR13, R13-1596, 4.5.2]**

4.5.4.2. For Group 1 points, reports of the duration of periods when monitoring data is not collected for each excursion caused by insufficient monitoring data as defined in 40 C.F.R. §63.152(c)(2)(ii)(A).
[**45CSR34; 40 C.F.R. §63.118(f)(2); 45CSR13, R13-1596, 4.5.2]**

4.5.4.3. Reports of the times and durations of all periods recorded under 4.4.6.3 when the gas stream is diverted to the atmosphere through a bypass line.
[**45CSR34; 40 C.F.R. §63.118(f)(3); 45CSR13, R13-1596, 4.5.2]** *(DAQS, DARS, DASS)*

4.5.5. **Group 1 Storage Vessel (Fixed Roof and Internal Floating Roof).** An owner or operator who elects to comply with 4.1.11 by using a fixed roof and an internal floating roof shall submit, as part of the Periodic Report required under 40 C.F.R. §63.152(c), the results of each inspection conducted in accordance with 4.2.8 in which a failure is detected in the control equipment.
**[45CSR34; 40 C.F.R. §63.122(d); 45CSR13, R13-1596, 4.5.2]**

4.5.5.1. For vessels for which annual inspections are required under 4.2.8.2.a or 4.2.8.3.b, the specifications and requirements listed in 4.5.5.1.a through 4.5.5.1.c apply.
**[45CSR34; 40 C.F.R. §63.122(d)(1); 45CSR13, R13-1596, 4.5.2]**

a. A failure is defined as any time in which the internal floating roof is not resting on the surface of the liquid inside the storage vessel and is not resting on the leg supports; or there is liquid on the floating roof; or the seal is detached from the internal floating roof; or there are holes, tears, or other openings in the seal or seal fabric; or there are visible gaps between the seal and the wall of the storage vessel.
**[45CSR34; 40 C.F.R. §63.122(d)(1)(i); 45CSR13, R13-1596, 4.5.2]**

b. Except as provided in 4.5.5.1.c, each Periodic Report shall include the date of the inspection, identification of each storage vessel in which a failure was detected, and a description of the failure. The Periodic Report shall also describe the nature of and date the repair was made or the date the storage vessel was emptied.
**[45CSR34; 40 C.F.R. §63.122(d)(1)(ii); 45CSR13, R13-1596, 4.5.2]**

c. If an extension is utilized in accordance with 4.2.8.4, the owner or operator shall, in the next Periodic Report, identify the vessel; include the documentation specified in 4.2.8.4; and describe the date the storage vessel was emptied and the nature of and date the repair was made.
**[45CSR34; 40 C.F.R. §63.122(d)(1)(iii); 45CSR13, R13-1596, 4.5.2]**

4.5.5.2. For vessels for which inspections are required under 4.2.8.2.b, 4.2.8.3.a, or 4.2.8.3.c, the specifications and requirements listed in 4.5.5.2.a and 4.5.5.2.b apply.
**[45CSR34; 40 C.F.R. §63.122(d)(2); 45CSR13, R13-1596, 4.5.2]**

a. A failure is defined as any time in which the internal floating roof has defects; or the primary seal has holes, tears, or other openings in the seal or the seal fabric; or the secondary seal (if one has been installed) has holes, tears or other openings in the seal or the seal fabric; or the gaskets no longer close off the liquid surface from the atmosphere; or the slotted membrane has more than 10 percent open area.
**[45CSR34; 40 C.F.R. §63.122(d)(2)(i); 45CSR13, R13-1596, 4.5.2]**

b. Each Periodic Report required under 40 C.F.R. §63.152(c) shall include the date of the inspection, identification of each storage vessel in which a failure was detected, and a description of the failure. The Periodic Report shall also describe the nature of and date the repair was made.
**[45CSR34; 40 C.F.R. §63.122(d)(2)(ii); 45CSR13, R13-1596, 4.5.2]** *(DABS and DACS)*

4.5.6. **Group 1 Storage Vessel (Fixed Roof and Internal Floating Roof).** In order to afford the Administrator the opportunity to have an observer present, the owner or operator shall notify the Administrator of the refilling of a storage vessel that has been emptied and degassed. For storage vessels equipped with an internal floating roof as specified in 4.1.11, the notification shall meet the requirements of either 4.2.8.5 or 4.2.8.6, as applicable. *(DABS and DACS)*
**[45CSR34; 40 C.F.R. §§63.122(h)(1) and 63.122(h)(1)(i); 45CSR13, R13-1596, 4.5.2]**

4.5.7. **Heat Exchange Systems.** If an owner or operator invokes the delay of repair provisions for a heat exchange system, the following information shall be submitted in the next semi-annual periodic report required by 4.5.1. If the leak remains unrepaired, the information shall also be submitted in each subsequent periodic report, until repair of the leak is reported.
**[45CSR34; 40 C.F.R. §63.104(f)(2); 45CSR13, R13-1596; 4.5.1]**

4.5.7.1. The owner or operator shall report the presence of the leak and the date that the leak was detected.
**[45CSR34; 40 C.F.R. §63.104(f)(2)(i); 45CSR13, R13-1596, 4.5.1]**

4.5.7.2. The owner or operator shall report whether or not the leak has been repaired.
**[45CSR34; 40 C.F.R. §63.104(f)(2)(ii); 45CSR13, R13-1596, 4.5.1]**

4.5.7.3. The owner or operator shall report the reason(s) for delay of repair. If delay of repair is invoked due to the reasons described in 4.1.14.3.b, documentation of emissions estimates must also be submitted.
**[45CSR34; 40 C.F.R. §63.104(f)(2)(iii); 45CSR13, R13-1596, 4.5.1]**

4.5.7.4. If the leak remains unrepaired, the owner or operator shall report the expected date of repair.
**[45CSR34; 40 C.F.R. §63.104(f)(2)(iv); 45CSR13, R13-1596, 4.5.1]**

4.5.7.5. If the leak is repaired, the owner or operator shall report the date the leak was successfully repaired.
**[45CSR34; 40 C.F.R. §63.104(f)(2)(v); 45CSR13, R13-1596, 4.5.1]** *(DAOS)*

4.5.8. **40 C.F.R. 63, Subpart H Reporting Requirements for Equipment Leaks.** The permittee shall comply with all applicable reporting requirements of 40 C.F.R. 63, Subpart H – "National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks" as specified in 40 C.F.R. §63.182 (Reporting requirements).
**[45CSR34; 40 C.F.R. 63, Subpart H; 40 C.F.R. §63.182; 45CSR13, R13-1596, 4.5.3]**

4.5.9. **40 C.F.R. 60, Subpart VV Reporting Requirements for Equipment Leaks.** The permittee shall comply with all applicable reporting requirements of 40 C.F.R. 63, Subpart VV – "Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry" as specified in 40 C.F.R. §60.487 (Reporting requirements). Compliance with the leak detection and repair (LDAR) provisions of 40 C.F.R. 63, Subpart H shall be considered compliance with the LDAR requirements of 40 C.F.R. 60, Subpart VV.
**[45CSR16; 45CSR34; 40 C.F.R. 60, Subpart VV; 40 C.F.R. §60.487; 40 C.F.R. §63.160(c)(1); 45CSR13, R13-1596, 4.1.12]**

## 4.6. Compliance Plan

N/A

# 5.0 Polymerization

## 5.1. Limitations and Standards

5.1.1. Maximum allowable hourly and annual emissions from the "D" Area – Acetal Resins, shall not exceed the limitations set forth in Table 5.1.1.

**Table 5.1.1. Emission Limits for Acetal Resin Manufacturing Unit**

| Emission Point | Pollutant | Emission Limit | |
|---|---|---|---|
| | | pph | tpy |
| DAKE | VOC | 2.44 | 10.66 |
| | Benzene | 0.01 | 0.02 |
| | Formaldehyde | 0.40 | 1.74 |
| | Methanol | 0.05 | 0.24 |
| | Toluene | 0.01 | 0.01 |
| | THAP | 0.69 | 3.03 |
| DOME | CO | 4.40 | 13.80 |
| | $NO_X$ | 12.10 | 23.7 |
| | $PM_{10}$ | 1.00 | 4.50 |
| | $SO_2$ | 2.60 | 11.0 |
| | VOC | 17.69 | 29.88 |
| | Benzene | 0.01 | 0.01 |
| | Formaldehyde | 7.60 | 4.86 |
| | Hexane | 0.04 | 0.07 |
| | Methanol | 0.15 | 0.33 |
| | Toluene | 0.20 | 0.13 |
| | THAP | 7.98 | 5.38 |
| HZZE | CO | 12.20 | 50.00 |
| | $NO_X$ | 6.60 | 24.60 |
| | $PM_{10}$ | 0.50 | 1.30 |
| | $SO_2$ | 0.20 | 0.30 |
| | VOC | 78.13 | 55.03 |
| | Benzene | 0.01 | 0.01 |
| | Formaldehyde | 11.21 | 5.81 |
| | Hexane | 0.14 | 0.29 |
| | Methanol | 0.21 | 0.11 |
| | Toluene | 0.25 | 0.11 |
| | THAP | 11.79 | 6.33 |
| DCBE | VOC | 18.0 | 1.1 |
| | Formaldehyde | 0.01 | 0.01 |
| | Toluene | 0.03 | 0.01 |
| | THAP | 0.03 | 0.01 |
| DCCE | VOC | 18.1 | 1.6 |
| | Formaldehyde | 0.01 | 0.01 |
| | Toluene | 0.03 | 0.01 |
| | THAP | 0.03 | 0.01 |
| DCDE | VOC | 18.1 | 1.6 |
| | Formaldehyde | 0.01 | 0.01 |
| | Toluene | 0.03 | 0.01 |
| | THAP | 0.03 | 0.01 |
| DCEE | VOC | 0.1 | 0.01 |
| | Formaldehyde | 0.01 | 0.01 |

| Emission Point | Pollutant | Emission Limit | |
|---|---|---|---|
| | | pph | tpy |
| DCOE | VOC | 8.3 | 2.3 |
| | Formaldehyde | 0.01 | 0.01 |
| | Toluene | 0.04 | 0.01 |
| | THAP | 0.04 | 0.01 |
| DCPE | VOC | 8.3 | 2.3 |
| | Formaldehyde | 0.01 | 0.01 |
| | Toluene | 0.04 | 0.01 |
| | THAP | 0.04 | 0.01 |
| DCQE | VOC | 18.1 | 3.2 |
| | Formaldehyde | 0.01 | 0.01 |
| | Toluene | 0.03 | 0.01 |
| | THAP | 0.03 | 0.01 |
| DCRE | VOC | 18.1 | 5.0 |
| | Formaldehyde | 0.01 | 0.01 |
| | Toluene | 0.08 | 0.03 |
| | THAP | 0.08 | 0.03 |
| DCSE | VOC | 18.1 | 5.0 |
| | Formaldehyde | 0.01 | 0.01 |
| | Toluene | 0.08 | 0.03 |
| | THAP | 0.08 | 0.03 |
| DCYE | VOC | 15.6 | 37.2 |
| | Formaldehyde | 0.01 | 0.01 |
| | Hexane | 0.01 | 0.01 |
| | Toluene | 0.02 | 0.03 |
| | THAP | 0.02 | 0.04 |
| DDEE | VOC | 0.1 | 0.12 |
| | Hexane | 0.01 | 0.01 |
| | Toluene | 0.01 | 0.01 |
| | THAP | 0.01 | 0.01 |
| DDPE | VOC | 0.1 | 0.2 |
| DESE | VOC | 0.5 | 0.1 |
| | Formaldehyde | 0.11 | 0.01 |
| DFIE | VOC | 47.5 | 0.4 |
| | Formaldehyde | 0.35 | 0.01 |
| | Methanol | 4.50 | 0.05 |
| | THAP | 5.20 | 0.05 |
| DGKE | VOC | 0.1 | 0.1 |
| | Formaldehyde | 0.04 | 0.03 |
| DGLE | VOC | 0.1 | 0.1 |
| | Formaldehyde | 0.04 | 0.03 |
| DGME | VOC | 0.1 | 0.1 |
| | Formaldehyde | 0.04 | 0.03 |
| DHUE | VOC | 1.4 | 5.9 |
| | Formaldehyde | 0.01 | 0.01 |
| | Hexane | 0.02 | 0.05 |
| | Toluene | 0.08 | 1.97 |
| | THAP | 0.10 | 2.02 |

| Emission Point | Pollutant | Emission Limit | |
|---|---|---|---|
| | | pph | tpy |
| DHVE | VOC | 1.4 | 5.9 |
| | Formaldehyde | 0.01 | 0.01 |
| | Hexane | 0.02 | 0.05 |
| | Toluene | 0.08 | 1.97 |
| | THAP | 0.10 | 2.02 |
| DHWE | VOC | 1.4 | 5.9 |
| | Formaldehyde | 0.01 | 0.01 |
| | Hexane | 0.02 | 0.05 |
| | Toluene | 0.08 | 1.97 |
| | THAP | 0.10 | 2.02 |
| DHYE | VOC | 0.1 | 0.5 |
| | Hexane | 0.07 | 0.27 |
| | Methanol | 0.01 | 0.04 |
| | Toluene | 0.03 | 0.11 |
| | THAP | 0.10 | 0.41 |
| DHZE | VOC | 0.4 | 1.5 |
| | Hexane | 0.04 | 0.15 |
| | Methanol | 0.01 | 0.01 |
| | Toluene | 0.03 | 0.10 |
| | THAP | 0.06 | 0.24 |
| DIEE | VOC | 0.1 | 0.01 |
| | Formaldehyde | 0.01 | 0.01 |
| | Toluene | 0.01 | 0.01 |
| | THAP | 0.01 | 0.01 |
| DINE | VOC | 0.01 | 0.02 |
| | Methanol | 0.01 | 0.02 |
| | THAP | 0.01 | 0.02 |
| DISE | VOC | 0.1 | 0.1 |
| | Methanol | 0.01 | 0.04 |
| DJXE | VOC | 0.2 | 0.01 |
| | Methanol | 0.17 | 0.01 |
| DJYE | VOC | 0.1 | 0.1 |
| | Methanol | 0.09 | 0.01 |
| DJZE | VOC | 3.9 | 0.1 |
| | Methanol | 3.90 | 0.04 |
| DLXE | $PM_{10}$ | 0.4 | 1.7 |
| | VOC | 2.0 | 8.5 |
| | Formaldehyde | 0.08 | 0.32 |
| | Toluene | 0.01 | 0.01 |
| | THAP | 0.08 | 0.33 |
| DMIE | VOC | 0.4 | 1.4 |
| DMLE | VOC | 2.8 | 11.9 |
| DMUE | VOC | 0.1 | 0.1 |
| DMVE | VOC | 0.1 | 0.1 |
| DNCE | $PM_{10}$ | 0.6 | 2.4 |
| | VOC | 2.6 | 11.2 |
| | Formaldehyde | 0.08 | 0.32 |
| | Toluene | 0.01 | 0.01 |
| | THAP | 0.08 | 0.32 |

| Emission Point | Pollutant | Emission Limit | |
|---|---|---|---|
| | | pph | tpy |
| DOHE | VOC | 0.1 | 0.3 |
| | Formaldehyde | 0.01 | 0.01 |
| | Hexane | 0.01 | 0.01 |
| | Toluene | 0.01 | 0.01 |
| | THAP | 0.01 | 0.01 |
| HBYE | VOC | 22.9 | 0.3 |
| | Formaldehyde | 0.22 | 0.01 |
| | Hexane | 0.15 | 0.01 |
| | Methanol | 0.86 | 0.01 |
| | Toluene | 0.10 | 0.01 |
| | THAP | 1.32 | 0.02 |
| HBZE | VOC | 2.5 | 0.1 |
| | Formaldehyde | 0.02 | 0.01 |
| | Methanol | 0.65 | 0.02 |
| | Toluene | 0.09 | 0.01 |
| | THAP | 0.75 | 0.02 |
| DOUE | VOC | 0.2 | 0.1 |
| | Hexane | 0.01 | 0.01 |
| | Toluene | 0.01 | 0.01 |
| | THAP | 0.01 | 0.01 |
| DOWE | VOC | 0.2 | 0.9 |
| | Formaldehyde | 0.01 | 0.01 |
| | Hexane | 0.01 | 0.01 |
| | Toluene | 0.01 | 0.01 |
| | THAP | 0.01 | 0.01 |
| DOXE | VOC | 23.0 | 13.1 |
| | Formaldehyde | 0.7 | 0.2 |
| | Toluene | 0.74 | 0.65 |
| | THAP | 1.57 | 0.93 |
| DOYE | VOC | 0.1 | 0.2 |
| | Formaldehyde | 0.01 | 0.01 |
| | Hexane | 0.01 | 0.01 |
| | Methanol | 0.01 | 0.02 |
| | Toluene | 0.01 | 0.01 |
| | THAP | 0.01 | 0.02 |
| DOZE | VOC | 0.2 | 0.3 |
| | Formaldehyde | 0.11 | 0.04 |
| | Hexane | 0.01 | 0.01 |
| | Toluene | 0.01 | 0.01 |
| | THAP | 0.11 | 0.04 |
| DEME | VOC | 31.96 | 0.72 |
| | Formaldehyde | 1.31 | 0.03 |
| | Hexane | 1.51 | 0.03 |
| | Toluene | 0.61 | 0.01 |
| | THAP | 3.43 | 0.08 |
| DPAE | VOC | 0.1 | 0.1 |
| | Hexane | 0.01 | 0.01 |
| | Toluene | 0.01 | 0.01 |
| | THAP | 0.01 | 0.01 |

Compliance with the hourly $PM_{10}$ and $SO_2$ emission limits for DOME shall demonstrate compliance with the less stringent hourly 45CSR§2-4.1.b particulate matter and 45CSR§10-3.1.e $SO_2$ emission limits. Compliance with the hourly $PM_{10}$ emission limit for HZZE shall demonstrate compliance with the less stringent 45CSR§6-4.1 hourly particulate matter emission limit. Compliance with the hourly $PM_{10}$ emission limits for DLXE and DNCE shall demonstrate compliance with the less stringent 45CSR§7-4.1 hourly particulate matter emission limits.
**[45CSR13, R13-1849, 4.1.1, 4.1.3, 4.1.4, and 4.1.5; 45CSR§2-4.1.b; 45CSR§6-4.1; 45CSR§7-4.1; 45CSR§10-3.1.e]**

5.1.2. The column analyzer (emission unit DPO; emission point DPOE) has minor $PM_{10}$ and VOC emissions, not to exceed a combined 10 pounds per year of $PM_{10}$ and 50 pounds per year of VOC.
**[45CSR13, R13-1849, 4.1.2]**

5.1.3. The permittee shall comply with all applicable standards and requirements of 45CSR7 – "To Prevent and Control Particulate Air Pollution from Manufacturing Process Operations." The pertinent sections of 45CSR7 applicable to this facility include the following:
**[45CSR13, R13-1849, 4.1.3; 45CSR7]**

5.1.3.1. The permittee shall not 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 5.1.3.2.
**[45CSR13, R13-1849, 4.1.3.1; 45CSR§7-3.1]**

5.1.3.2. The provisions of Section 5.1.3.1 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.
**[45CSR13, R13-1849, 4.1.3.2; 45CSR§7-3.2]**

5.1.3.3. The permittee shall not cause, suffer, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to Section 3.1.13 is required to have a full enclosure and be equipped with a particulate matter control device. **[45CSR13, R13-1849, 4.1.3.3; 45CSR§7-3.7]** *(DLXE and DNCE)*

5.1.4. The permittee shall comply with all applicable standards and requirements of 45CSR2 – "To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers" and 40 C.F.R. 60, Subpart Dc – "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units." The pertinent sections of 45CSR2 and 40 C.F.R. 60, Subpart Dc applicable to this facility include the following:
**[45CSR13, R13-1849, 4.1.4; 45CSR16; 40 C.F.R. 60, Subpart Dc]**

5.1.4.1. The permittee shall not cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average. Compliance with this streamlined condition assures compliance with 40 C.F.R.§60.43c(c). *(DOME)*
**[45CSR13, R13-1849, 4.1.4.1; 45CSR§2-3.1; 45CSR16; 40 C.F.R. §60.43c(c)]**

5.1.4.2. If the permittee can demonstrate to the satisfaction of the Director that compliance with Section 5.1.4.1 cannot practically be achieved with respect to soot blowing operations or during the cleaning of a fire box, the Director may formally approve an alternative visible emission standard applicable to the fuel burning unit for soot blowing periods; provided that the exception period shall not exceed one (1) six-minute time period per hour and a total of six (6) six-minute time periods in a calendar day with visible emissions limited to twenty-seven (27%) percent opacity, as determined in accordance with 40 C.F.R. 60, Appendix A, Method 9, or by using measurements from a certified continuous opacity monitoring system. Compliance with this streamlined

condition assures compliance with 45CSR§2-3.3 and 40 C.F.R. §60.43c(c). *(DOME)*
**[45CSR13, R13-1849, 4.1.4.2; 45CSR§2-3.3; 45CSR16; 40 C.F.R. §60.43c(c)]**

5.1.4.3. The visible emission standards set forth in Sections 5.1.4.1 and 5.1.4.2 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. Compliance with this streamlined condition assures compliance with 45CSR§2-9.1 and 40 C.F.R. §60.43c(d). *(DOME)*
**[45CSR13, R13-1849, 4.1.4.3; 45CSR§2-9.1; 45CSR16; 40 C.F.R. §60.43c(d)]**

5.1.4.4. The permittee shall not cause, suffer, allow or permit any source of fugitive particulate matter to operate that is not equipped with a fugitive particulate matter control system. This system shall be operated and maintained in such a manner as to minimize the emission of fugitive particulate matter. Sources of fugitive particulate matter associated with fuel burning units shall include, but not be limited to, the following:

a. Stockpiling of ash or fuel either in the open or in enclosures such as silos;

b. Transport of ash in vehicles or on conveying systems, to include spillage, tracking or blowing of particulate matter from or by such vehicles or equipment; and

c. Ash or fuel handling systems and ash disposal areas.
**[45CSR13, R13-1849, 4.1.4.4; 45CSR§2-5.1]**

5.1.4.5. At all times, including periods of start-ups, shutdowns and malfunctions, owners and operators shall, to the extent practicable, maintain and operate any fuel burning unit(s) including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. *(DOME)*
**[45CSR§2-9.2]**

5.1.5. The permittee shall comply with all applicable standards and requirements of 45CSR6 – "To Prevent and Control Air Pollution from Combustion of Refuse" and 40 C.F.R. 60, Subpart A– "Standards of Performance for New Stationary Sources – General Provisions." The pertinent sections of 45CSR6 and 40 C.F.R. §60.1 applicable to this facility include the following:
**[45CSR13, R13-1849, 4.1.5; 45CSR6; 45CSR16; 40 C.F.R. 60, Subpart A]**

5.1.5.1. The permittee shall not cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater. *(HZZE)*
**[45CSR13, R13-1849, 4.1.5.1; 45CSR§6-4.3]**

5.1.5.2. The provisions of Section 5.1.5.1 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, or six (6) minutes in any sixty (60)-minute period for stoking operations. *(HZZE)*
**[45CSR13, R13-1849, 4.1.5.2; 45CSR§6-4.4]**

5.1.5.3. The permittee shall not cause, suffer, allow or permit the emission of particles of unburned or partially burned refuse or ash from any incinerator which are large enough to be individually distinguished in the open air. *(HZZE)*
**[45CSR13, R13-1849, 4.1.5.3; 45CSR§6-4.5]**

5.1.6. The permittee shall maintain a TRE index value greater than 1.0 without use of VOC emission control devices. *(DML)*
**[45CSR13, R13-1849, 4.1.6.1.c; 45CSR16; 40 C.F.R. §60.662(c)]**

5.1.7. The permittee shall comply with all applicable standards and requirements of 40 C.F.R. 63, Subpart YY – "National Emission Standards for Hazardous Air Pollutants (HAP) for Source Categories: Generic Maximum Achievable Control Technology (MACT) Standards." The subpart includes requirements to limit HAP emissions from acetal resin production process vents, storage tanks, wastewater management units, transfer operations, and equipment leaks. This subpart also includes specific notification, testing, monitoring, recordkeeping, and reporting requirements. The pertinent sections of 40 C.F.R. §63.1100 applicable to this facility include the following:
**[45CSR13, R13-1849, 4.1.8; 45CSR34; 40 C.F.R. §63.1100]**

5.1.7.1 **Front End Process Vent Provisions.** Front end process vents must reduce emissions of total organic HAP by using a flare meeting the requirement of 40 C.F.R. 63, Subpart SS or reduce emissions of total organic HAP by 60 percent or reduce TOC to less than 20 ppmv, whichever is less stringent, by venting emissions through a closed vent system to any combination of control devices meeting the requirement of 40 C.F.R. 63, Subpart SS as specified in 40 C.F.R. §63.982(a)(2);
**[45CSR13, R13-1849, 4.1.8.2; 45CSR34; 40 C.F.R. §63.1103(a) Table1(2)]**

a. The designated front end process vents subject to 40 C.F.R. §63.1103(a) Table 1(2) are listed in the following table.

***Table 5.1.7.1.a. Front End Process Vents – 40 C.F.R. 63, Subpart YY***

| Emission Unit ID | Emission Point ID | Control Device |
|---|---|---|
| DFE | DOME/HZZE | DOMC/HZZC |
| DDX | DOME/HZZE | DOMC/HZZC |
| DEB | DOME/HZZE | DOMC/HZZC |
| DDZ | DOME/HZZE | DOMC/HZZC |
| DDW | DOME/HZZE | DOMC/HZZC |
| DAL | DOME/HZZE | DOMC/HZZC |
| DDO | DOME/HZZE | DOMC/HZZC |
| DDL | DOME/HZZE | DOMC/HZZC |
| DDS | DOME/HZZE | DOMC/HZZC |
| DEP | DOME/HZZE | DOMC/HZZC |
| DEU | DOME/HZZE | DOMC/HZZC |
| DEW | DOME/HZZE | DOMC/HZZC |
| DEZ | DOME/HZZE | DOMC/HZZC |
| DFA | DOME/HZZE | DOMC/HZZC |
| DGQ | DOME/HZZE | DOMC/HZZC |
| DGR | DOME/HZZE | DOMC/HZZC |
| DGS | DOME/HZZE | DOMC/HZZC |
| DGX | DOME/HZZE | DOMC/HZZC |
| DPM | DOME/HZZE | DOMC/HZZC |

| Emission Unit ID | Emission Point ID | Control Device |
|---|---|---|
| GBU | DOME/HZZE | DOMC/HZZC |

5.1.7.2. **Back End Process Vent Provisions.** Back end process vents with a TRE index less than 1 must reduce emissions of total organic HAP by using a flare meeting the requirements of 40 C.F.R. 63, Subpart SS or incorporate a 40 C.F.R. 63, Subpart SS control system to capture and treat 98 percent of total organic HAP or reduce TOC to less than 20 ppmv;

DON, DOP, and DMH are subject to the requirements of 40 C.F.R. 60, Subpart Kb and 40 C.F.R. 63, Subpart YY, but in accordance with 40 C.F.R. §63.1100(g)(1)(ii), these emission units are required to comply only with the provisions of 40 C.F.R. 60, Subpart YY.

**[45CSR13, R13-1849, 4.1.8.3; 45CSR34; 40 C.F.R. §63.1103(a) Table 1(3); 40 C.F.R. §63.1100(g)(1)(ii)]**

a. The designated back end process vents subject to 40 C.F.R. §63.1103(a) Table 1(3) are listed in the following table.

***Table 5.1.7.2.a. Back End Process Vents – 40 C.F.R. 63, Subpart YY***

| Emission Unit ID | Emission Point ID | Control Device |
|---|---|---|
| TRE > 4<br>[not subject to 40 C.F.R. §63.1103(a) Table 1(3)] | | |
| DML | DMLE | TRE Calculations |
| DDF | DDFE | TRE Calculations |
| DOH | DOHE | TRE Calculations |
| DCL | DCLE | TRE Calculations |
| DCA | DCAE | TRE Calculations |
| DCE | DCEE | TRE Calculations |
| TRE < 1<br>[subject to 40 C.F.R. §63.1103(a) Table 1(3)] | | |
| DIE | DOME/HZZE | DOMC/HZZC |
| DIF | DOME/HZZE | DOMC/HZZC |
| DJO | DOME/HZZE | DOMC/HZZC |
| DJP | DOME/HZZE | DOMC/HZZC |
| DJQ | DOME/HZZE | DOMC/HZZC |
| DJR | DOME/HZZE | DOMC/HZZC |
| DJT | DOME/HZZE | DOMC/HZZC |
| DJU | DOME/HZZE | DOMC/HZZC |
| DJV | DOME/HZZE | DOMC/HZZC |
| DJW | DOME/HZZE | DOMC/HZZC |
| DLM | DOME/HZZE | DOMC/HZZC |

| Emission Unit ID | Emission Point ID | Control Device |
|---|---|---|
| DLR | DOME/HZZE | DOMC/HZZC |
| DMM | DOME/HZZE | DOMC/HZZC |
| DMQ | DOME/HZZE | DOMC/HZZC |
| DMR | DOME/HZZE | DOMC/HZZC |
| DMX | DOME/HZZE | DOMC/HZZC |
| DMY | DOME/HZZE | DOMC/HZZC |
| DOC | DOME/HZZE | DOMC/HZZC |
| DOD | DOME/HZZE | DOMC/HZZC |
| DOG | DOME/HZZE | DOMC/HZZC |
| DON | DOME/HZZE | DOMC/HZZC |
| DOO | DOME/HZZE | DOMC/HZZC |
| DOP | DOME/HZZE | DOMC/HZZC |
| DOQ | DOME/HZZE | DOMC/HZZC |
| DOX | DOME/HZZE | DOMC/HZZC |
| DPH | DOME/HZZE | DOMC/HZZC |
| DPL | DOME/HZZE | DOMC/HZZC |
| GAA | DOME/HZZE | DOMC/HZZC |
| GAB | DOME/HZZE | DOMC/HZZC |
| GAC | DOME/HZZE | DOMC/HZZC |
| GAO | DOME/HZZE | DOMC/HZZC |
| GBA | DOME/HZZE | DOMC/HZZC |
| HBM | DOME/HZZE | DOMC/HZZC |
| DDJ | DOME/HZZE | DOMC/HZZC |
| DIC | DOME/HZZE | DOMC/HZZC |
| DMH | DOME/HZZE | DOMC/HZZC |
| DOA | DOME/HZZE | DOMC/HZZC |

5.1.7.3. **Equipment Leak Provisions**. Equipment in organic HAP service shall comply with the LDAR requirements of 40 C.F.R. 63, Subpart UU (control level 2). Organic HAP service is defined to include equipment containing or contacting greater than or equal to 10 weight percent organic HAP and operating at least 300 hours per year. Compliance with this streamlined condition assures compliance with the LDAR requirements of 45CSR27 and 45CSR§21-37 where the equipment is subject to multiple requirements.
**[45CSR13, R13-1849, 4.1.8.4; 45CSR§21-37 (State-Enforceable only); 45CSR27 (State-Enforceable only); 45CSR34; 40 C.F.R. §63.1103(a) Table 1(5)]**

The pertinent equipment leak standards include, but are not limited to: 40 C.F.R. §63.1025

(Valves in gas and vapor service and in light liquid service standards.); 40 C.F.R. §63.1026 (Pumps in light liquid service standards.); 40 C.F.R. §63.1027 (Connectors in gas and vapor service and in light liquid service standards.); and 40 C.F.R. §63.1028 (Agitators in gas and vapor service and in light liquid service standards.).
**[45CSR34; 40 C.F.R. §§63.1025, 63.1026, 63.1027, and 63.1028]**

5.1.7.4. **Process Wastewater Provisions.** For all process wastewater generated from the Acetal Resin process, the permittee shall comply with the HON process wastewater requirements of 40 C.F.R. §§63.132 through 63.148, except as specified in paragraphs 40 C.F.R. §§63.1106(a)(1) through (a)(16). For wastewater streams that are Group 2 for 40 C.F.R. 63, Subpart G, Table 9 compounds, the owner or operator shall comply with the recordkeeping requirements specified in 5.4.8. *(DOP)*
**[45CSR13, R13-1849, 4.1.8.5; 45CSR34; 40 C.F.R. §63.1103(a) Table 1(6) and 40 C.F.R. §63.1106(a); 40 C.F.R. §63.132(a)(3)]**.

5.1.7.5. **Maintenance Wastewater Provisions.** For all maintenance wastewater generated from the Acetal Resin process, the permittee shall comply with the HON maintenance wastewater requirements of 40 C.F.R. §63.105. Where terms used in 40 C.F.R. §63.105 are defined in 40 C.F.R. §63.1101, the definition in 40 C.F.R. §63.1101 shall apply. For terms used in 40 C.F.R. §63.105 that are not defined in 40 C.F.R. §63.1101, the definition in 40 C.F.R. §§63.101 and 63.111 shall apply. The applicable provisions for maintenance wastewater are provided in 5.4.9:
**[45CSR13, R13-1849, 4.1.8.6; 45CSR34; 40 C.F.R. §63.1103(a) Table 1(7) and 40 C.F.R. §63.1106(b)]**

5.1.7.6. **Liquid Streams in Open Systems Provisions.** For liquid streams in open systems generated from the Acetal Resin process, the permittee shall comply with the provisions of Table 35 of 40 C.F.R. 63, Subpart G for each item of equipment meeting the criteria specified in paragraphs 5.1.7.6.a through 5.1.7.6.c of this section and either paragraph 5.1.7.6.d.i or 5.1.7.6.d.ii of this section, with the exceptions provided in paragraphs 5.1.7.6.e and 5.1.7.6.f of this section;
**[45CSR13, R13-1849, 4.1.8.7; 45CSR34; 40 C.F.R. §63.1103(a) Table 1(8) and 40 C.F.R. §63.1106(c)]**

a. The item of equipment is one of the types of equipment identified in paragraphs 5.1.7.6.a.i through 5.1.7.6.a.vii of this section.
**[45CSR13, R13-1849, 4.1.8.7.1; 45CSR34; 40 C.F.R. §63.1103(a) Table 1(8) and 40 C.F.R. §63.1106(c)(1)]**

i. Drain or drain hub;
**[45CSR13, R13-1849, 4.1.8.7.1.i; 45CSR34; 40 C.F.R. §63.1103(a) Table 1(8) and 40 C.F.R. §63.1106(c)(1)(i)]**

ii. Manhole (including sumps and other points of access to a conveyance system);
**[45CSR13, R13-1849, 4.1.8.7.1.ii; 45CSR34; 40 C.F.R. §63.1103(a) Table 1(8) and 40 C.F.R. §63.1106(c)(1)(ii)]**

iii. Lift station;
**[45CSR13, R13-1849, 4.1.8.7.1.iii; 45CSR34; 40 C.F.R. §63.1103(a) Table 1(8) and 40 C.F.R. §63.1106(c)(1)(iii)]**

iv. Trench;
**[45CSR13, R13-1849, 4.1.8.7.1.iv; 45CSR34; 40 C.F.R. §63.1103(a) Table 1(8) and 40 C.F.R. §63.1106(c)(1)(iv)]**

v. Pipe;
**[45CSR13, R13-1849, 4.1.8.7.1.v; 45CSR34; 40 C.F.R. §63.1103(a) Table 1(8) and 40 C.F.R. §63.1106(c)(1)(v)]**

vi. Oil/water separator; and
**[45CSR13, R13-1849, 4.1.8.7.1.vi; 45CSR34; 40 C.F.R. §63.1103(a) Table 1(8) and 40 C.F.R. §63.1106(c)(1)(vi)]**

vii. Tanks with capacities of 38 $m^3$ or greater.
**[45CSR13, R13-1849, 4.1.8.7.1.vii; 45CSR34; 40 C.F.R. §63.1103(a) Table 1(8) and 40 C.F.R. §63.1106(c)(1)(vii)]**

b. The item of equipment is part of an affected source that is subject to this subpart.
**[45CSR13, R13-1849, 4.1.8.7.2; 45CSR34; 40 C.F.R. §63.1103(a) Table 1(8) and 40 C.F.R. §63.1106(c)(2)]**

c. The item of equipment is controlled less stringently than in Table 35 of 40 C.F.R. 63, Subpart G, and the item of equipment is not otherwise exempt from the provisions of 40 C.F.R. 63, Subpart YY, or a referenced subpart of 40 C.F.R. 63.
**[45CSR13, R13-1849, 4.1.8.7.3; 45CSR34; 40 C.F.R. §63.1103(a) Table 1(8) and 40 C.F.R. §63.1106(c)(3)]**

d. The item of equipment:
**[45CSR13, R13-1849, 4.1.8.7.4; 45CSR34; 40 C.F.R. §63.1103(a) Table 1(8) and 40 C.F.R. §63.1106(c)(4)]**

i. Is a drain, drain hub, manhole, lift station, trench, pipe, or oil/water separator that conveys water with a total annual average concentration greater than or equal to 10,000 parts per million by weight of Table 9 compounds (as defined under 40 C.F.R. 63, Subpart YY) at any flow rate; or a total annual average concentration greater than or equal to 1,000 parts per million by weight of Table 9 compounds (as defined under 40 C.F.R. 63, Subpart YY) at an annual average flow rate greater than or equal to 10 liters per minute.
**[45CSR13, R13-1849, 4.1.8.7.4.i; 45CSR34; 40 C.F.R. §63.1103(a) Table 1(8) and 40 C.F.R. §63.1106(c)(4)(i)]**

ii. Is a tank that receives one or more streams that contain water with a total annual average concentration greater than or equal to 1,000 parts per million by weight of Table 9 compounds (as defined under 40 C.F.R. 63, Subpart YY) at an annual average flow rate greater than or equal to 10 liters per minute. The owner or operator shall determine the characteristics of the stream as specified in paragraphs 5.1.7.6.d.ii.A and 5.1.7.6.d.ii.B of this section.
**[45CSR13, R13-1849, 4.1.8.7.4.ii; 45CSR34; 40 C.F.R. §63.1103(a) Table 1(8) and 40 C.F.R. §63.1106(c)(4)(ii)]**

A. The characteristics of the stream being received shall be determined at the inlet to the tank.
**[45CSR13, R13-1849, 4.1.8.7.4.ii.A; 45CSR34; 40 C.F.R. §63.1103(a) Table 1(8) and 40 C.F.R. §63.1106(c)(4)(ii)(A)]**

B. The characteristics shall be determined according to the procedures in 40 C.F.R. §63.144(b) and (c).
**[45CSR13, R13-1849, 4.1.8.7.4.ii.B; 45CSR34; 40 C.F.R. §63.1103(a) Table 1(8) and 40 C.F.R. §63.1106(c)(4)(ii)(B)]**

e. When terms used in Table 35 of 40 C.F.R. 63, Subpart G are defined in 40 C.F.R. §63.1101, the definition in 40 C.F.R. §63.1101 shall apply, for the purpose of 40 C.F.R. Part 63, Subpart YY. For terms used in Table 35 of 40 C.F.R. 63, Subpart G that are not defined in 40 C.F.R. §63.1101, the definitions in 40 C.F.R. §63.101 and 40 C.F.R. §63.111 shall apply.
**[45CSR13, R13-1849, 4.1.8.7.5; 45CSR34; 40 C.F.R. §63.1103(a) Table 1(8) and 40 C.F.R. §63.1106(c)(5)]**

f. When Table 35 of 40 C.F.R. 63, Subpart G refers to 40 C.F.R. §63.119(e)(1) or (e)(2) in the requirements for tanks, the requirements in 40 C.F.R. §63.982(a)(1) shall apply, for purposes of 40 C.F.R. 63, Subpart YY.
**[45CSR13, R13-1849, 4.1.8.7.6; 45CSR34; 40 C.F.R. §63.1103(a) Table 1(8) and 40 C.F.R. §63.1106(c)(6)]**

5.1.7.7. *Alternative Operating Scenario (AOS).* The permittee has identified a process unit shutdown of the Acetal Resins Manufacturing facility as an alternative operating scenario. The AOS allows the facility to perform extensive maintenance on the facility without operating the Tank farm scrubber [DAKC] or either the comparable fuels boiler [DOMC] or the flare [HZZC].

5.1.7.7.1. The AOS applies when all of the conditions below have been met:

a. The Acetal Resins Manufacturing facility is no longer operating and is no longer producing or transferring material;
b. Sources identified in table 5.1.7.7.1.have been isolated and/or shutdown such that the sources do not have emissions to the environment or to the waste gas header.
c. Sources identified in the Emissions Unit Table in section 1.0 of this permit and not listed in Table 5.1.7.7.2 of this section have been emptied of as much material as the facility is capable and they do not have any emissions associated with them other than breathing loss emissions.

Table 5.1.7.7.1

| Sources that normally vent to the CFB [DOME]/Flare [HZZE] that shall be emptied and/or isolated in the alternative operating scenario. | | | | | |
|---|---|---|---|---|---|
| DFE | DEW | DIE | DLR | DPL | HAB |
| DCA | DEZ | DIF | DMM | DPM | HAD |
| DDW | DFA | DJO | DMQ | DPP | HAF |
| DMH | DFB | DJP | DMR | GAA | HAH |
| GBU | DGQ | DJQ | DMX | GAB | HBA |
| DDJ | DGR | DJR | DMY | GAC | HBJ |
| DDL | DGS | DJT | DOC | GAN | HBK |
| DDS | DGV | DJU | DOD | GAO | HBM |
| DDZ | DGX | DJV | DOG | GAZ | DDX |
| DEP | DHS | DJW | DOX | GBA | |
| DEU | DIC | DLM | DPH | HAA | |
| DEC | DDO | DCF | DCG | DAL | |

**[45CSR13, R13-1849 Condition 4.1.8.8.1.]**

5.1.7.7.2. Maximum allowable hourly emissions from the "D" Area – Acetal Resins Manufacturing Unit shall not exceed the limitations set forth in Table 5.1.7.7.2 when operating under the AOS

Table 5.1.7.7.2 Emission Limits for the AOS

| Emission Point ID | Emission Unit ID | Regulated Pollutant | Emission Limit (lb/hr) |
|---|---|---|---|
| DEME | DDW-Alt | Formaldehyde<br>Total HAPs<br>Total VOCs | 0.01<br>0.01<br>0.01 |
| | DEZ-Alt | | |
| | DMH-Alt | | |
| | DON-Alt | | |
| | DOO-Alt | | |
| | DOP-Alt | | |
| DAKE | DEA-Alt | Formaldehyde<br>Total HAPs<br>Total VOCs | 0.01<br>0.01<br>0.01 |
| DINE | DINE-Alt | Methanol | 0.01 |

**[45CSR13, R13-1849 Condition 4.1.8.8.2.]**

5.1.7.7.3. The permittee shall meet the requirements for process unit shutdowns in accordance with the startup, shutdown, and malfunction provisions provided in §63.1111 of Subpart YY of 40 C.F.R. 63 including but not limited to:

5.1.7.7.3.a. The permittee shall develop a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the affected source during periods of startup, shutdown, and malfunction. This plan shall also include a program of corrective action for malfunctioning process and air pollution control equipment used to comply with relevant standards under this Subpart YY of 40 C.F.R. Part 63. The plan shall also address routine or otherwise predictable CPMS malfunctions.
**[45CSR13, R13-1849 Condition 4.1.8.8.3.a; 45CSR34; 40 C.F.R.§63.1111(a)(1)]**

5.1.7.7.3.b. During periods of startup, shutdown, and malfunction, the permittee shall operate and maintain such affected source in a manner consistent with safety and good air pollution control practices for minimizing emissions to the extent practical.
**[45CSR13, R13-1849 Condition 4.1.8.8.3.b; 45CSR34; 40 C.F.R.§63.1111(a)(2)]**

5.1.7.7.3.c. If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the permittee shall revise the starup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the affected source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control equipment or CPMS.
**[45CSR13, R13-1849 Condition 4.1.8.8.3.c; 45CSR34; 40 C.F.R.§63.1111(a)(5)]**

5.1.8. The permittee shall comply with all applicable standards and requirements of 40 C.F.R. 63, Subpart SS – "National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process." The subpart includes requirements for closed vent systems, control devices and routing of air emissions to a fuel gas system or process. These provisions apply as referenced from 40 C.F.R. 63, Subpart YY. This subpart also includes specific notification, testing, monitoring, recordkeeping, and reporting requirements. The pertinent sections of 40 C.F.R. §63.980 applicable to this facility include the following:
**[45CSR13, R13-1849, 4.1.9; 45CSR34; 40 C.F.R. §63.980]**

5.1.8.1. **Closed Vent Systems Provisions. [45CSR13, R13-1849, 4.1.9.1; 45CSR34; 40 C.F.R. §63.983]**

a. **Closed vent system equipment and operating requirements.** Except for closed vent systems operated and maintained under negative pressure, the provisions of this paragraph apply to closed vent systems collecting regulated material from a regulated source; **[45CSR13, R13-1849, 4.1.9.1.1; 40 C.F.R. §63.983(a)]**

i. Each closed vent system shall be designed and operated to collect the regulated material vapors from the emission point, and to route the collected vapors to a control device. **[45CSR13, R13-1849, 4.1.9.1.1(1); 40 C.F.R. §63.983(a)(1)]**

ii. Closed vent systems used to comply with the provisions of 40 C.F.R. 63, Subpart SS shall be operated at all times when emissions are vented to, or collected by, them. **[45CSR13, R13-1849, 4.1.9.1.1(2); 40 C.F.R. §63.983(a)(2)]**

iii. Except for equipment needed for safety purposes such as pressure relief devices, low-leg drains, high point bleeds, analyzer vents and open-ended valves or lines the owner or operator shall comply with the provisions of paragraph 5.1.8.1.a.iii.A for each closed vent system that contains bypass lines that could divert a vent stream to the atmosphere. *(DOJ and DOV)*
**[45CSR13, R13-1849, 4.1.9.1.1(3); 40 C.F.R. §63.983(a)(3)]**

A. Properly install, maintain and operate a flow indicator that is capable of taking periodic readings. Records shall be generated as specified in 5.4.11. The flow indicator shall be installed at the entrance of the bypass line.
**[45CSR13, R13-1849, 4.1.9.1.1(3)(i); 40 C.F.R. §63.983(a)(3)(i)]** *(DOJ and DOV)*

5.1.8.2. **Flare Provisions.** Flares subject to 40 C.F.R. 63, Subpart SS shall meet the performance requirements in 40 C.F.R. §63.11(b). *(HZZE)*
**[45CSR13, R13-1849, 4.1.9.2; 45CSR34; 40 C.F.R. §63.987(a)]**

5.1.8.3. **Incinerators, Boilers and Process Heaters Provisions. [45CSR13, R13-1849, 4.1.9.3; 45CSR34; 40 C.F.R. §63.988]**

a. Owners or operators using incinerators, boilers, or process heaters to meet a weight-percent emission reduction or parts per million by volume outlet concentration requirement specified in a referencing subpart shall meet the requirements of 40 C.F.R. §63.988.
[**45CSR13, R13-1849, 4.1.9.3.1; 45CSR34; 40 C.F.R. §63.988(a)(1)]**

b. Incinerators, boilers, or process heaters used to comply with the provisions of a referencing subpart and 40 C.F.R. 63, Subpart SS shall be operated at all times when emissions are vented to them.
[**45CSR13, R13-1849, 4.1.9.3.2; 45CSR34; 40 C.F.R. §63.988(a)(2)]**

c. For boilers and process heaters, the vent stream shall be introduced into the flame zone of the boiler or process heater.
[**45CSR13, R13-1849, 4.1.9.3.3; 45CSR34; 40 C.F.R. §63.988(a)(3)]** *(DOME)*

5.1.8.4. **Absorbers, Condensers and Carbon Adsorbers used as Control Devices Provisions. [45CSR13, R13-1849, 4.1.9.4; 45CSR34; 40 C.F.R. §63.990]**

a. Owners or operators using absorbers, condensers, or carbon adsorbers to meet a weight-percent emission reduction or parts per million by volume outlet concentration requirement specified in a referencing subpart shall meet the requirements of 40C.F.R.§63.990.

**[45CSR13, R13-1849, 4.1.9.4.1; 45CSR34; 40 C.F.R. §63.990(a)(1)]**

b. Absorbers, condensers, and carbon adsorbers used to comply with the provisions of a referencing subpart and 40 C.F.R. 63, Subpart SS shall be operated at all times when emissions are vented to them.
**[45CSR13, R13-1849, 4.1.9.4.2; 45CSR34; 40 C.F.R. §63.990(a)(2)]** *(DAKE)*

5.1.9. Material to be combusted in the Comparable Fuel Boiler (DOMC) must meet the following specifications to be deemed a "comparable fuel" under 40 C.F.R. §261.38:

5.1.9.1. The heating value must exceed 5,000 BTU/lbs;

5.1.9.2. The viscosity must not exceed 50 cs, as-fired;

5.1.9.3. For compounds listed in table 1 to 40 C.F.R. §261.38 the specification levels and, where non-detect is the specification, minimum detection limits are as listed in table 1 to 40 C.F.R. §261.38.

The Comparable Fuels Boiler (DOMC) must meet the requirements of 40 C.F.R. §261.38(c)(2)(ii)(A).

*(DOMC)* **[45CSR13, R13-1849; 4.1.11; 45CSR25; 40 C.F.R. §261.38]**

5.1.10. Operating ranges for the Comparable Fuels Boiler "DOMC" shall be quantified, which are representative of the efficiencies demonstrated during the last stack test showing compliance. These parameters shall be reported in the Notification of Compliance Status along with proper justification of how the ranges were measured. Continuous monitoring of these parameters shall be maintained in order to justify the equipment is on-line and operating at the efficiencies demonstrated during the units' last stack test showing compliance. Any parameter upsets that falls outside of the range specified in the Notification of Compliance Status shall be considered an possible exceedance according to the criteria specified in 40 C.F.R. 63, Subpart SS. The permittee shall make said records available to the Director or his duly authorized representative upon request as well as submit the periodic report pursuant to 40 C.F.R. 63, Subpart SS. All sampling and analysis records must be maintained for a period of five (5) years. *(DOME)*
**[45CSR13, R13-1849, 4.1.12; 45CSR34; 40 C.F.R. §§63.996(c)(6) and 63.999(b)(3)]**

5.1.11. **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 - *Polymerization* 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, R13-1849; 4.1.13; 45CSR§13-5.11.]**

5.1.12. **Pressure Relief Device Maintenance.** The permittee shall handle pressure relief device changes for the referenced pressure relief devices in the following manner:

5.1.12.1. Where the removal of a pressure relief device such as a conservation vent or relief valve from a storage or process vessel would otherwise result in excess emissions, the owner or the operator is permitted to remove the pressure relief device (conservation vent or relief valve) providing the following conditions are met –

a. For vessels which under normal operating conditions vent to a downstream piece of process or control equipment, a pressure relief device may be removed for a period of up to 5 days for maintenance, replacement, calibration or inspection under the following conditions:

i. Upward level movement of the liquid within the vessel is restricted to 10 (ten) percent of the vessel height during the period in which the pressure relief device is removed, or

ii. Emissions of air contaminants due to working losses and inert gas purges for safety are restricted to less than 100 pounds per day as determine by standard engineering estimation methods during the period in which the pressure relief device is removed.

A. Estimation methods for the daily emission amount shall use the methods submitted for these emission points in the application for this permit.

5.1.12.2. Emissions occurring during the period of time the pressure relief valve is removed shall not be considered excess emissions nor will they be subject to the reporting requirements of 45CSR§27-10.4 and 45CSR§ 27-10.5 or the reporting procedure required under 45CSR§21-5.2.

*(D11, D12, D14, D15, D16, D17, D18, D20, D21, D27, D35, D37, D39, D40, D44, D46, D52, D57, D59, D63, D65, D66, D69)* **[45CSR13, R13-1849, 4.1.14; 45CSR§21-40.4(e) (State-Enforceable only)]**

5.1.13. No owner or operator shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. These fuel oil sulfur limits apply at all times, including periods of startup, shutdown, and malfunction. *(DOMC)*
**[40 C.F.R. §§60.42c(d) and (i)]**

5.1.14. The permittee shall limit the number of capper jet maintenance events vented through emission point DEME annually to a maximum of 36 events, calculated on a 12-month rolling average.
**[45CSR13, R13-1849, 4.1.15; CO-R21-97-47, Section III, Requirement 3) (State-Enforceable only)]**

5.1.15. **Industrial, Commercial, and Institutional Boilers and Process Heaters MACT, 40 CFR 63, Subpart DDDDD:**

a. The Comparable Fuels Boiler (DOM), shall comply with all applicable requirements for existing affected sources pursuant to 40 CFR 63, Subpart DDDDD, "National Emission Standards for Hazardous Air Pollutants for Industrial/Commercial/Institutional Boilers and Process Heaters no later than the existing source compliance date of January 31, 2016, or as amended by US EPA.
**[45CSR34; 40 CFR §63.7495(b).]**

b. If required to submit a Notification of Compliance Status (NOCS) pursuant to 40 CFR 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 CFR §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.
**[45CSR34; 40 CFR §63.7545(e); 45CSR§30-6.5.b.]**

## 5.2. Monitoring Requirements

5.2.1. The permittee shall perform monitoring of all equipment parameters listed in Appendix C.1 per the minimum data collection frequency and per the data averaging period as indicated. The parameters specified in Appendix C.1 shall be measured and recorded at least once per shift the equipment is in operation. If any parameter should fall outside its specific range, additional documentation shall be in place stating the cause of the fluctuation or error and the approximate duration outside the established

range. Any corrective actions taken to minimize excess emission episodes due to operation outside the normal operating ranges specified in Appendix C.1 shall be documented.
**[45CSR13, R13-1849, 4.2.1]**

5.2.2. **Opacity Monitoring for Manufacturing Sources of Particulate Matter.** For the purpose of determining compliance with the opacity limits set forth in Section 5.1.3 and 5.1.4., the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.

The visible emission check shall determine the presence or absence of visible emissions. 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. 60, Appendix A, Method 22 or from the lecture portion of the 40 C.F.R. 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed at emission points DLXE and DNCE for a sufficient time interval to determine if any visible emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

If visible emissions are present at a source(s) for three (3) consecutive monthly checks, the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of 45CSR7A as soon as practicable, but within seventy-two (72) hours of the final visual emission check. A 45CSR7A observation at a source(s) restarts the count of the number of consecutive readings with the presence of visible emissions.

*(DLXE and DNCE)* **[45CSR13, R13-1849, 4.2.2]**

5.2.3. **Opacity Monitoring for "DOMC" Comparable Fuels Boiler.** At least once every two weeks, the permittee will have an observer, certified in accordance with EPA Reference Test Method 9, evaluate and record six (6) consecutive minutes of opacity readings (24 readings) from the boiler exhaust stack, emission point DOME, during the daylight shift as a check on fuel combustion and emission compliance. If the average opacity for a 6-minute set of readings exceeds ten (10) percent, the observer must collect two additional 6-minute sets of visible emission readings for a total of three data sets. An analysis must be made for the cause of any visible emissions in excess of a ten (10) percent six-minute average opacity reading.
*(DOME)* **[45CSR13, R13-1849, 4.2.3; "Request for Alternative Monitoring System for Vent Gas Flow, Boiler Opacity and $SO_2$ Emissions" approved by EPA on February 13, 2001]**

5.2.4. **Sulfur Analysis for Comparable Fuel.** The permittee will conduct sulfur content analysis of the raw materials fed to the Acetal Resin process, which produces the waste oil, a.k.a. "Comparable Fuel." Actual sampling and analysis of the fuel for sulfur content will be conducted at least twice per week for a period of three (3) months or whenever there is any change in the process. If the analysis shows consistent compliance with the 40 C.F.R. 60, Subpart Dc regulations, then analysis only needs to be done once per month for the next six (6) months. If compliance with 40 C.F.R. 60, Subpart Dc is proven on a consistent basis under the given procedure, then sampling and analysis of the fuel shall be done semi-annually from that point on. Once compliance is proven and the sampling and analysis frequency is extended, the sampling and analysis shall remain on a semi-annual schedule until a process change occurs that alters the fuel characteristics.
**[45CSR13, R13-1849, 4.2.4; "Request for Alternative Monitoring System for Vent Gas Flow, Boiler Opacity and $SO_2$ Emissions" approved by EPA on February 13, 2001; 45CSR§§10-8.2.c, 8.2.c.2, and 8.2.c.3; 45CSR§§10A-6.1.a, 6.4, and 6.5.b; "45CSR10/10A Monitoring Plan" – Revision 3 dated January 2002 and approved on April 4, 2005]**

5.2.5. **Flow Monitoring System for "DOMC" Comparable Fuels Boiler and "HZZC" Flare.** The permittee shall have a flow monitoring system which provides both a continuous total gas flow measurement, utilizing an Annubar flow rate monitor, and flow indicators located at the entrances to the two emergency bypass vents to atmosphere, at the vent gas line to the Comparable Fuels Boiler (DOMC), and at the vent gas line to the flare (HZZ) that is configured in parallel to the boiler (DOMC) and used as a backup control device. The proposed alternative flow monitoring shall be done by the control system which shall provide continuous monitoring and recording of vent stream flow to all indicated pathways. The only time any vent gas would go to atmosphere and not to either the boiler or flare would be under emergency conditions where the oxygen concentration in the header got to dangerously high levels leading to an explosive condition. This plan shall also incorporate monitoring of any bypass line flows emitted directly to atmosphere. The distributed control system shall also incorporate a data historian and timer, in addition to the valve position monitor, to be able to tell not only where the vent gas is going, but when it started in that particular path and the total amount of time the flow went in that direction to allow the source to satisfy the recordkeeping requirements of 40 C.F.R. 63, Subpart SS. The permittee shall make said records available to the Director or his duly authorized representative upon request. All sampling and analysis records must be maintained for a period of five (5) years. *(DOME and HZZE)*
**[45CSR13, R13-1849, 4.2.5]**

5.2.6. **Closed vent system inspection and monitoring requirements.** The provisions of 40 C.F.R. 63, Subpart SS apply to closed vent systems collecting regulated material from a regulated source. Inspection records shall be generated as specified in 5.4.12.3 and 5.4.12.4;
**[45CSR13, R13-1849, 4.1.9.1.2; 45CSR34; 40 C.F.R. §63.983(b)]**

5.2.6.1. Except for any closed vent systems that are designated as unsafe or difficult to inspect as provided in paragraphs 5.2.6.2 and 5.2.6.3, each closed vent system shall be inspected as specified in 5.2.6.1.a or 5.2.6.1.b of this section.
**[45CSR13, R13-1849, 4.1.9.1.2(1); 45CSR34; 40 C.F.R. §63.983(b)(1)]**

a. If the closed vent system is constructed of hard-piping, the owner or operator shall comply with the requirements specified in paragraphs 5.2.6.1.a.i and 5.2.6.1.a.ii.
**[45CSR13, R13-1849, 4.1.9.1.2(1)(i); 45CSR34; 40 C.F.R. §63.983(b)(1)(i)]**

i. Conduct an initial inspection according to the procedures in paragraph 5.2.6.5; and
**[45CSR13, R13-1849, 4.1.9.1.2(1)(i)(A); 45CSR34; 40 C.F.R.§63.983(b)(1)(i)(A)]**

ii. Conduct annual inspections for visible, audible, or olfactory indications of leaks.
**[45CSR13, R13-1849, 4.1.9.1.2(1)(i)(B); 45CSR34; 40 C.F.R.§63.983(b)(1)(i)(B)]**

b. If the closed vent system is constructed of ductwork, the owner or operator shall conduct an initial and annual inspection according to the procedures in 5.2.6.5.
**[45CSR13, R13-1849, 4.1.9.1.2(1)(ii); 45CSR34; 40 C.F.R. §63.983(b)(1)(ii)]**

5.2.6.2. Any parts of the closed vent system that are designated, as described in 5.4.12.2 as unsafe to inspect are exempt from the inspection requirements of 5.2.6.1 if the conditions of 5.2.6.2.a and 5.2.6.2.b are met.
**[45CSR34; 40 C.F.R. §63.983(b)(2)]**

a. The owner or operator determines that the equipment is unsafe-to-inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with 5.2.6.1; and
**[45CSR34; 40 C.F.R. §63.983(b)(2)(i)]**

b. The owner or operator has a written plan that requires inspection of the equipment as frequently as practical during safe-to-inspect times. Inspection is not required more than once annually.
**[45CSR34; 40 C.F.R. §63.983(b)(2)(ii)]**

5.2.6.3. Any parts of the closed vent system that are designated, as described in 5.4.12.2, as difficult-to-inspect are exempt from the inspection requirements of 5.2.6.1 if the provisions of 5.2.6.3.a and 5.2.6.3.b apply.
**[45CSR34; 40 C.F.R. §63.983(b)(3)]**

a. The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters (7 feet) above a support surface; and
**[45CSR34; 40 C.F.R. §63.983(b)(3)(i)]**
b. The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years.
**[45CSR34; 40 C.F.R. §63.983(b)(3)(ii)]**

5.2.6.4. For each bypass line, the owner or operator shall comply with 5.2.6.4.a. *(DOJ and DOV)*
**[45CSR34; 40 C.F.R. §63.983(b)(4)]**

a. If a flow indicator is used, take a reading at least once every 15 minutes. *(DOJ and DOV)*
**[45CSR34; 40 C.F.R. §63.983(b)(4)(i)]**

5.2.6.5. Each closed vent system shall be inspected according to the procedures specified in 5.2.6.5.a through 5.2.6.5.g.
**[45CSR34; 40 C.F.R. §63.983(c)(1)]**

a. Inspection shall be conducted in accordance with Method 21 of 40 C.F.R. 60, Appendix A, except as specified in this section.
**[45CSR34; 40 C.F.R. §63.983(c)(1)(i)]**

b. Except as provided in 5.2.6.5.c, the detection instrument shall meet the performance criteria of Method 21 of 40 C.F.R. 60, Appendix A, except the instrument response factor criteria in Section 3.1.2(a) of Method 21 must be for the representative composition of the process fluid and not of each individual VOC in the stream. For process streams that contain nitrogen, air, water, or other inerts that are not organic HAP or VOC, the representative stream response factor must be determined on an inert-free basis. The response factor may be determined at any concentration for which the monitoring for leaks will be conducted.
**[45CSR34; 40 C.F.R. §63.983(c)(1)(ii)]**

c. If no instrument is available at the plant site that will meet the performance criteria of Method 21 specified in paragraph 5.2.6.5.b, the instrument readings may be adjusted by multiplying by the representative response factor of the process fluid, calculated on an inert-free basis as described in 5.2.6.5.b.
**[45CSR34; 40 C.F.R. §63.983(c)(1)(iii)]**

d. The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 C.F.R. 60, Appendix A.
**[45CSR34; 40 C.F.R. §63.983(c)(1)(iv)]**

e. Calibration gases shall be as specified in 5.2.6.5.e.i through 5.2.6.5.e.iii.
**[45CSR34; 40 C.F.R. §63.983(c)(1)(v)]**

i. Zero air (less than 10 parts per million hydrocarbon in air); and
**[45CSR34; 40 C.F.R. §63.983(c)(1)(v)(A)]**

ii. Mixtures of methane in air at a concentration less than 10,000 parts per million. A calibration gas other than methane in air may be used if the instrument does not respond to methane or if the instrument does not meet the performance criteria specified in 5.2.6.5.b. In such cases, the calibration gas may be a mixture of one or more the compounds to be measured in air.
**[45CSR34; 40 C.F.R. §63.983(c)(1)(v)(B)]**

iii. If the detection instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,500 parts per million.
**[45CSR34; 40 C.F.R. §63.983(c)(1)(v)(C)]**

f. An owner or operator may elect to adjust or not adjust instrument readings for background. If an owner or operator elects not to adjust readings for background, all such instrument readings shall be compared directly to 500 parts per million to determine whether there is a leak. If an owner or operator elects to adjust instrument readings for background, the owner or operator shall measure background concentration using the procedures in this section. The owner or operator shall subtract the background reading from the maximum concentration indicated by the instrument.
**[45CSR34; 40 C.F.R. §63.983(c)(1)(vi)]**

g. If the owner or operator elects to adjust for background, the arithmetic difference between the maximum concentration indicated by the instrument and the background level shall be compared with 500 parts per million for determining whether there is a leak.
**[45CSR34; 40 C.F.R. §63.983(c)(1)(vii)]**

5.2.6.6. The instrument probe shall be traversed around all potential leak interfaces as described in Method 21 of 40 C.F.R. 60, Appendix A.
**[45CSR34; 40 C.F.R. §63.983(c)(2)]**

5.2.6.7. Inspections shall be performed when the equipment is in regulated material service, or in use with any other detectable gas or vapor.
**[45CSR34; 40 C.F.R. §63.983(c)(3)]**

5.2.6.8. If there are visible, audible, or olfactory indications of leaks at the time of the annual visual inspections required by 5.2.6.1.a.ii, the owner or operator shall follow the procedure specified in either 5.2.6.8.a or 5.2.6.8.b.
**[45CSR34; 40 C.F.R. §63.983(d)(1)]**

a. The owner or operator shall eliminate the leak.
**[45CSR34; 40 C.F.R. §63.983(d)(1)(i)]**

b. The owner or operator shall monitor the equipment according to the procedures in 5.2.6.5, 5.2.6.6, and 5.2.6.7.
**[45CSR34; 40 C.F.R. §63.983(d)(1)(ii)]**

5.2.6.9. Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practical, except as provided in 5.2.6.10. Records shall be generated as specified in 5.4.12.3 when a leak is detected.
**[45CSR34; 40 C.F.R. §63.983(d)(2)]**

a. A first attempt at repair shall be made no later than 5 days after the leak is detected.
**[45CSR34; 40 C.F.R. §63.983(d)(2)(i)]**

b. Except as provided in 5.2.6.10, repairs shall be completed no later than 15 days after the leak is detected or at the beginning of the next introduction of vapors to the system whichever is later.
**[45CSR34; 40 C.F.R. §63.983(d)(2)(ii)]**

5.2.6.10. Delay of repair of a closed vent system for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible or unsafe without a closed vent system shutdown, as defined in 40 C.F.R. §63.981, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of such equipment shall be completed as soon as practical, but not later than the end of the next closed vent system shutdown.
**[45CSR34; 40 C.F.R. §63.983(d)(3)]**

5.2.7. **Flare monitoring requirements.** Where a flare is used, the following monitoring equipment is required: a device (including but not limited to a thermocouple, ultra-violet beam sensor, or infrared sensor) capable of continuously detecting that at least one pilot flame or the flare flame is present. Flare flame monitoring and compliance records shall be kept as specified in 5.4.13 and reported as specified in 5.5.2.2. *(HZZE)*
**[45CSR13, R13-1849, 4.2.7; 45CSR34; 40 C.F.R. §63.987(c)]**

5.2.8. **Incinerator, boiler, and process heater monitoring requirements.** Where a boiler or process heater is used, a temperature monitoring device capable of providing a continuous record that meets the provisions specified in paragraph 40 C.F.R. §63.988(c)(3) is required. Any boiler or process heater in which all vent streams are introduced with primary fuel or are used as the primary fuel is exempt from monitoring. Monitoring results shall be recorded as specified in 5.4.14, as applicable. General requirements for monitoring and continuous parameter monitoring systems are contained in the referencing subpart and 5.2.10.

5.2.8.1. Where a boiler or process heater of less than 44 megawatts (150 million British thermal units per hour) design heat input capacity is used and the regulated vent stream is not introduced as or with the primary fuel, a temperature monitoring device shall be installed in the fire box.

The minimum temperature for the Comparable Fuels Boiler (DOMC) is 1562 °F (850 °C).
**[45CSR13, R13-1849, 4.2.6, 4.2.8, and 4.2.8.2; 45CSR34; 40 C.F.R. §§63.988(c) and (c)(3) and 63.996(c)(6); Notification of Compliance Status Report dated February 11, 2003]** *(DOME)*

5.2.9. **Absorber, condenser, or carbon adsorber monitoring requirements.** Where an absorber, condenser, or carbon adsorber is used as a control device, either an organic monitoring device capable of providing a continuous record, or the monitoring device specified in 5.2.9.1 shall be used. Monitoring results shall be recorded as specified in 5.4.15, as applicable. General requirements for monitoring and continuous parameter monitoring systems are contained in a referencing subpart and 5.2.10.
**[45CSR13, R13-1849, 4.2.9; 45CSR34; 40 C.F.R. §63.990(c)]**

5.2.9.1. Where an absorber is used, a scrubbing liquid temperature monitoring device and a specific gravity monitoring device, each capable of providing a continuous record, shall be used. If the difference between the specific gravity of the saturated scrubbing fluid and specific gravity of the fresh scrubbing fluid is less than 0.02 specific gravity units, an organic monitoring device capable of providing a continuous record shall be used.
**[45CSR13, R13-1849, 4.2.9.1; 45CSR34; 40C.F.R.§63.990(c)(1)]**

The range for the scrubbing liquid temperature is ≤ 60 °C and the range for the scrubbing liquid specific gravity is 0.9 to 1.1.
**[45CSR13, R13-1849, 4.2.1; 45CSR34; 40 C.F.R. §63.996(c)(6)]** *(DAKE)*

5.2.10. **Operation and maintenance of continuous parameter monitoring systems (CPMS). [45CSR34; 40 C.F.R. §63.996(c)]**

5.2.10.1. All monitoring equipment 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. §63.996(c)(1)]**

5.2.10.2. The owner or operator of a regulated source shall maintain and operate each CPMS in a manner consistent with good air pollution control practices.
**[45CSR34; 40 C.F.R. §63.996(c)(2)]**

a. The owner or operator of a regulated source shall ensure the immediate repair or replacement of CPMS parts to correct "routine" or otherwise predictable CPMS malfunctions. The necessary parts for routine repairs of the affected equipment shall be readily available. **[45CSR34; 40 C.F.R. §63.996(c)(2)(i)]**

b. If under the referencing subpart, an owner or operator has developed a start-up, shutdown, and malfunction plan, the plan is followed, and the CPMS is repaired immediately, this action shall be recorded as specified in 5.4.16.2.e.
**[45CSR34; 40 C.F.R. §63.996(c)(2)(ii)]**

c. The Administrator's determination of whether acceptable operator and maintenance procedures are being used for the CPMS will be based on information that may include, but is not limited to, review of operation and maintenance procedures, operation and maintenance records as specified in 5.4.16.1 and 5.4.16.2, manufacturer's recommendations and specifications, and inspection of the CPMS.
**[45CSR34; 40 C.F.R. §63.996(c)(2)(iii)]**

5.2.10.3. All CPMS's shall be installed and operational, and the data verified as specified in 40 C.F.R. 63, Subpart SS either prior to or in conjunction with conducting performance tests. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.
**[45CSR34; 40 C.F.R. §63.996(c)(3)]**

5.2.10.4. All CPMS's shall be installed such that representative measurements of parameters from the regulated source are obtained.
**[45CSR34; 40 C.F.R. §63.996(c)(4)]**

5.2.10.5. In accordance with the referencing subpart, except for system breakdowns, repairs, maintenance periods, instrument adjustments, or checks to maintain precision and accuracy, calibration checks, and zero and span adjustments, all continuous parameter monitoring systems shall be in continuous operation when emissions are being routed to the monitored device.
**[45CSR34; 40 C.F.R. §63.996(c)(5)]**

5.2.11. The owner or operator of an affected facility that seeks to comply with the TRE index value limit specified under 5.1.6 using a condenser as the final recovery device in the recovery system shall install, calibrate, maintain, and operate according to manufacturer's specifications a condenser exit (product side) temperature monitoring device equipped with a continuous record and having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius or ±0.5 °C, whichever is greater. *(DML)*
**[45CSR13, R13-1849, 4.1.6; 45CSR16, 40 C.F.R. §§60.663(e) and (e)(2)(i)]**

5.2.12. **Opacity Monitoring for Flare HZZC**. For the purpose of determining compliance with the opacity limits set forth in Section 5.1.5, the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for Flare HZZC.

The visible emission check shall determine the presence or absence of visible emissions. 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. 60, Appendix A, Method 22 or from the lecture portion of the 40 C.F.R. 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed at each source (stack, transfer point, fugitive emission source, etc.) for a sufficient time interval to determine if any visible emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

If visible emissions are present at a source(s) for three (3) consecutive monthly checks, the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of 40 C.F.R. 60, Appendix A, Method 9 as soon a practicable, but within seventy-two (72) hours of the final visual emission check. A 40 C.F.R. 60, Appendix A, Method 9 observation at a source(s) restarts the count of the number of consecutive readings with the presence of visible emissions.
*(HZZE)* **[45CSR§30-5.1.c]**

5.2.13. In the event a source and associated emission point, identified in Appendix C.1 of this permit, are subject to the MACT standards of 40C.F.R.63 and the New Source Performance Standards of 40C.F.R.60, and each standard sets forth a unique monitoring requirement for similar operating parameters, then demonstration of compliance with the MACT standard(s) shall demonstrate compliance with the monitoring requirements set forth in the applicable NSPS(s), where allowed by Federal regulation.
**[45CSR13, R13-1849, 4.2.10]**

5.2.14. The Permittee shall following the monitoring frequency for units subject to 40CFR63, Subpart UU as listed below:
Valves in Gas and Vapor Service and in Light Liquid Service – As per 40CFR§§63.1025(b)(3)(i) through (v).
Pumps in Light Liquid Service – Monthly
Connectors in Gas and Vapor Service and in Light Liquid Service – As per 40CFR§§63.1027(b)(3)(i) through (iii).

Agitators in Gas and Vapor Service and in Light Liquid Service - Monthly
Pumps, Valves, Connectors, and agitators in Heavy Liquid Service; Pressure Relief Devices in Liquid Service; and Instrumentation Systems – As per 40CFR§63.1029(b).
Pressure Relief Devices in Gas and Vapor Service – As per 40CFR§63.1030(c)(2).
**[45CSR34; 40CFR§§63.1025(a)(3)(i) through (v), §63.1026(b)(1), 40CFR§§63.1027(b)(3)(i) through (iii), 40CFR§63.1028(c), 40CFR§63.1029(b), 40CFR§63.1030(c)(2)]**

## 5.3. Testing Requirements

5.3.1. **Stack testing.** At such reasonable times as the Secretary may designate, the permittee may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases when the Secretary has reason to believe that an emission limitation is being violated. For cause, the Secretary may request the permittee to install such stack gas monitoring devices as the Secretary deems necessary to determine continuing compliance. The data from such devices shall be readily available for review on-site or at such other reasonable location that the Secretary may specify. At the request of the Secretary, such data shall be made available for inspection or copying and the Secretary may require periodic submission of excess emission reports. Compliance with this streamlined requirement assures compliance with 45CSR§7-8.1. and 45CSR§13-6.1. *(DLXE and DNCE)*
**[45CSR13, R13-1849, 4.3.1; 45CSR§7-8.1; 45CSR§13-6.1]**

5.3.2. **Compliance testing.** Any such test to determine compliance with particulate matter limitations set forth in Section 5.1.1 shall be conducted in accordance with Method 5 of 40 C.F.R. 60, Appendix A, Method 201 or 201A of 40 C.F.R. 51, or other such appropriate method approved by the Secretary. All such compliance tests must consist of not less than three (3) test runs; any test run duration shall not be less than sixty (60) minutes and no less than thirty (30) standard cubic feet of exhaust gas must be sampled during each test run. Such tests shall be conducted under such reasonable operating conditions as the Secretary may specify. The Secretary, or a duly authorized representative, may option to witness or conduct such stack tests. Should the Secretary exercise this option to conduct such tests, the registrant shall provide all necessary sampling connections and sampling ports located in a manner as the Secretary may require, power for test equipment and required safety equipment in place such as scaffolding, railings and ladders in order to comply with generally accepted good safety practices. *(DLXE and DNCE)*
**[45CSR13, R13-1849, 4.3.2; 45CSR§7-8.1.]**

5.3.3. Any stack serving any process source operation or air pollution control device on any process source operation shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures. *(DLXE and DNCE)*
**[45CSR13, R13-1849, 4.3.3; 45CSR§7-4.12.]**

5.3.4. **Opacity testing.** Any test to determine compliance with the visible emission (opacity) limitations set forth in Section 5.1.3 shall be conducted by personnel appropriately trained for the task. Personnel performing the visual emissions observation shall be trained and familiar with the limitations and restrictions associated with 40 C.F.R. 60, Appendix A – Method 22. Any person performing an opacity observation for compliance assessment in the event of visible emissions must be a certified visible emission observer in accordance with 45CSR7A – "Compliance Test Procedures for 45CSR7 – *To Prevent and Control Particulate Air Pollution from Manufacturing Process Operations*" and Method 22 of 40 C.F.R. 60, Appendix A. Nothing in this section, however, shall preclude any permittee or the Secretary from using opacity data from a properly installed, calibrated, maintained and operated continuous opacity monitor as evidence to demonstrate compliance or a violation of visible emission requirements. If continuous opacity monitoring data results are submitted when determining compliance with visible emission limitations for a period of time during which 45CSR7A or Method 22 data indicates noncompliance, the 45CSR7A or Method 22 data shall be used to determine compliance with the visible emission limitations. *(DLXE and DNCE)*
**[45CSR13, R13-1849, 4.3.4]**

5.3.5. **Notification of compliance testing.** For any compliance test to be conducted by the permittee as set forth in Section 5.3, a test protocol shall be submitted to the Secretary at least thirty (30) calendar days prior to the scheduled date of the test. Such compliance test protocol shall be subject to approval by the Secretary. The permittee shall notify the Secretary at least fifteen (15) days in advance of actual test dates and times during which the test (or tests) will be conducted.
**[45CSR13, R13-1849, 4.3.5]**

5.3.6. **Alternative test methods.** The Secretary may require a different test method or approve an alternative method in light of any technology advancements that may occur and may conduct or require such other tests as may be deemed necessary to evaluate air pollution emissions.
**[45CSR13, R13-1849, 4.3.6; 45CSR§7-8.2]**

5.3.7. At such reasonable times as the Director may designate, the owner or operator of any fuel burning unit(s), manufacturing process source(s) or combustion source(s) may be required to conduct or have conducted tests to determine the compliance with the emission limitations of Section 5.1.1. Such tests shall be conducted in accordance with the appropriate test method set forth in 40 C.F.R. 60, Appendix A, Method 6, Method 15 or other equivalent EPA testing method approved by the Director. The Director, or his or her duly authorized representative, may at his or her option witness or conduct such tests. Should the Director exercise his or her option to conduct such tests, the operator will provide all 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.
*(DOME and HZZE)* **[45CSR13, R13-1849, 4.3.7; 45CSR§10-8.1.a]**

5.3.8. In order to demonstrate compliance with the comparable fuels exemption under 40 C.F.R. §261.38, excluded comparable/syngas fuels shall be retested as part of the waste analysis plan specified by 40 C.F.R. §261.38.c.7 or after a process change that could change the chemical or physical properties of the waste according to 40 C.F.R. §261.38.c.8. The permittee shall make said records available to the Director or his duly authorized representative upon request. All sampling and analysis records must be maintained for a period of five (5) years.
*(DOME)* **[45CSR13, R13-1849, 4.3.8; 40C.F.R.§261.38]**

5.3.9. For the purpose of demonstrating compliance with the emission limitations of 40 C.F.R. 63, Subpart YY and the Specific Requirements of this permit the following emissions points shall be stack tested within 180 days of a written request from the Director according to the procedures specified in 40 C.F.R. §63.997: DOM, DCY, DML, DAK, and DOX. The following test methods shall be utilized where applicable. An equivalent alternate method may be incorporated provided approval is granted by the Director.

| | |
|---|---|
| Particulate Matter | Method 5 |
| Nitrogen Oxides | Method 7, 7A, 7C, 7D or 7E |
| Carbon Monoxide | Method 10 |
| VOC | Method 18 |

At least thirty (30) days prior to each compliance test, or within such other time period as requested and approved by the Director, a test protocol shall be furnished to the Director for his review and approval and shall include as a minimum, the following information:

5.3.9.1. Identification and description of the unit(s) that are to be tested.

5.3.9.2. A discussion of the manner in which the unit(s) shall be operated during the test periods with respect to operating loads, representative of fuel(s) fired, operating temperatures, and other factors which may affect emissions.

5.3.9.3. A description or listing of unit and control equipment data that shall be monitored and recorded

during the test run.

5.3.9.4. A description of the test methods and equipment that shall be employed with requests for approval of any variances to test method procedures or sampling equipment designs set forth in the applicable state and federal regulations.

5.3.9.5. A drawing to the stack or duct sections where samples shall be taken showing distances to upstream and downstream gas flow disturbances or bends and changes in duct or stack cross sections.

5.3.9.6. A drawing of the test plane(s) showing dimensions and number and location of sampling (traverse) points.

5.3.9.7. The sampling time at each traverse point and total sampling time for each test run. If the sampling time per traverse point is to be less than five (5) minutes, comments shall be included concerning the variability of gas flow and temperatures during the shorter sampling time and how the sampling rate shall be monitored and adjusted to maintain isokinetic conditions.

5.3.9.8. The minimum volume (SCF) of gas that shall be sampled per test run.

5.3.9.9. The name of the person to contact concerning the scheduled tests and affiliation of personnel who shall conduct the tests.

5.3.9.10. A statement concerning where the laboratory analysis are to be conducted and a description of the chain of custody for collected samples.

5.3.9.11. The anticipated date that the subject testing is to be performed.

**[45CSR13, R13-1849, 4.3.9]**

5.3.10. **Incinerators, boilers, and process heaters performance test requirements.** Except as specified in 40 C.F.R. §63.997(b), and paragraph 40 C.F.R. §63.988(b)(2), the owner or operator shall conduct an initial performance test of any incinerator, boiler, or process heater used to comply with the provisions of a referencing subpart and 40 C.F.R. 63, Subpart SS according to the procedures in 40 C.F.R. §63.997. Performance test records shall be kept as specified in 40 C.F.R. §63.998(a)(2) and a performance test report shall be submitted as specified in 40 C.F.R. §63.999(a)(2). As provided in 40 C.F.R. §63.985(b)(1), a design evaluation may be used as an alternative to the performance test for storage vessels and low throughput transfer rack controls. As provided in 40 C.F.R. §63.986(b), no performance test is required for equipment leaks.
*(DOME)* **[45CSR13, R13-1849, 4.3.10; 45CSR34; 40 C.F.R. §63.988(b)(1)]**

5.3.11. **Absorbers, condensers, and carbon adsorbers performance test requirements.** Except as specified in 40 C.F.R. §63.997(b), the owner or operator shall conduct an initial performance test of any absorber, condenser, or carbon adsorber used as a control device to comply with the provisions of the referencing subpart and 40 C.F.R. 63, Subpart SS according to the procedures in 40 C.F.R. §63.997. Performance test records shall be kept as specified in 40 C.F.R. §63.998(a)(2) and a performance test report shall be submitted as specified in 40 C.F.R. §63.999(a)(2). As provided in 40 C.F.R. §63.985(b)(1), a design evaluation may be used as an alternative to the performance test for storage vessels and low throughput transfer rack controls. As provided in 40 C.F.R. §63.986(b), no performance test is required to demonstrate compliance for equipment leaks.
*(DAKE)* **[45CSR13, R13-1849, 4.3.11; 45CSR34; 40 C.F.R. §63.990(b)]**

5.3.12. Each owner or operator of an affected facility seeking to comply with 5.1.6 shall recalculate the TRE index value for that affected facility whenever process changes are made. Examples of process changes include

changes in production capacity, feedstock type, or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. The TRE index values shall be recalculated based on test data, or on best engineering estimates of the effects of the change to the recovery system.

5.3.12.1. Where the recalculated TRE index value is less than or equal to 1.0, the owner or operator shall notify the Administrator within 1 week of the recalculation and shall conduct a performance test according to the methods and procedures required by 40 C.F.R. §60.664 in order to determine compliance with 40 C.F.R. §60.662(a). Performance tests must be conducted as soon as possible after the process changes but no later than 180 days from the time of the process change.

5.3.12.2. Where the initial TRE index value is greater than 8.0 and the recalculated TRE index value is less than or equal to 8.0 but greater than 1.0, the owner or operator shall conduct a performance test in accordance with 40 C.F.R. §§60.663, 60.664, and 60.665. Performance tests must be conducted as soon as possible after the process change but no later than 180 days from the time of the process change.

*(DML)* **[45CSR13, R13-1849, 4.1.6; 45CSR16; 40 C.F.R. §60.664(g)]**

5.3.13. 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 45CSR§2-4.1.b. Such tests shall be conducted in accordance with the appropriate method set forth in the Appendix to 45CSR2 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.

Sufficient information on temperatures, velocities, pressures, weights and dimensional values shall be reported to the Director, with such necessary commentary as he may require to allow an accurate evaluation of the reported test results and the conditions under which they were obtained.
*(DOME)* **[45CSR§§2-8.1.b and 8.1.b.1]**

5.3.14. 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 45CSR§2-4.1.
*(DOME)* **[45CSR§2-8.1.c]**

5.3.15. **40 C.F.R. 63, Subpart YY Applicability and Compliance Assessment Procedures.**

5.3.15.1. Applicability and compliance with standards shall be governed by, in part, but not limited to, the use of data, tests, and requirements according to paragraphs 5.3.15.1.a through 5.3.15.1.c. Compliance with design, equipment, work practice, and operating standards, including those for equipment leaks, shall be determined according to 5.3.15.2.

a. *Applicability assessments.* Unless otherwise specified in a relevant test method required to assess control applicability, each test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in this subpart. The arithmetic mean of the results of the three runs shall apply when assessing applicability. Upon receiving approval from the Administrator, results of a test run may be replaced with results of an additional test run if it meets the criteria specified in paragraphs 5.3.15.1.a.i through 5.3.15.1.a.iv.

i. A sample is accidentally lost after the testing team leaves the site; or

ii. Conditions occur in which one of the three runs must be discontinued because of forced shutdown; or

iii. Extreme meteorological conditions occur;

iv. Other circumstances occur that are beyond the owner or operator's control.

b. *Performance test.* The Administrator may determine compliance with emission limitations of 40 C.F.R. 63, Subpart YY based on, but not limited to, the results of performance tests conducted according to the procedures specified in 40 C.F.R. §63.997, unless otherwise specified in 40 C.F.R. 63, Subpart YY or a subpart referenced by 40 C.F.R. 63, Subpart YY.

c. *Operation and maintenance requirements.* The Administrator may determine compliance with the operation and maintenance standards of this subpart by, but not limited to, evaluation of an owner or operator's conformance with operation and maintenance requirements, including the evaluation of monitoring data, as specified in 40 C.F.R. 63, Subpart YY or a subpart referenced by this 40 C.F.R. 63, Subpart YY.

5.3.15.2. *Design, equipment, work practice, or operational standards.* The Administrator may determine compliance with design, equipment, work practice, or operational requirements by, but is not limited to, review of records, inspection of the affected source, and by evaluation of an owner or operator's conformance with operation and maintenance requirements as specified in 40 C.F.R. 63, Subpart YY, and in the subparts referenced by 40 C.F.R. 63, Subpart YY.

**[45CSR34; 40 C.F.R. 63, Subpart YY; 40 C.F.R. §§63.1108(b)(4) and (5)]**

5.3.16. **40 C.F.R. 63, Subpart UU Testing Requirements for Equipment Leaks.**
The permittee shall comply with all applicable standards of 40 C.F.R. 63, Subpart UU – "National Emission Standards for Equipment Leaks – Control Level 2 Standards for which Construction, Reconstructions, or Modification Commenced After June 29, 1999." The pertinent equipment leak standards include, but are not limited to:
40CFR§63.1025 – Valves in Gas and Vapor Service and in Light Liquid Service
40CFR§63.1026 – Pumps in Light Liquid Service
40CFR§63.1027 – Connectors in Gas and Vapor Service and in Light Liquid Service
40CFR§63.1028 – Agitators in Gas and Vapor Service and in Light Liquid Service
40CFR§63.1029 – Pumps, Valves, Connectors, and Agitators in Heavy Liquid Service; Pressure Relief Devices in Liquid Service; and Instrumentation Systems
40CFR§63.1030 – Pressure Relief Devices in Gas and Vapor Service
40CFR§63.1032 – Sampling Connection Systems
40CFR§63.1033 – Open-Ended Valves or Lines
40CFR§63.1034 – Closed Vent Systems and Control Devices; or Emissions Routed to a Fuel Gas System or Process

[**45CSR34; 40 C.F.R. 60, Subpart UU; 40 C.F.R. §§63.1025 – 1030, 40 C.F.R. §§63.1032-1034**]

## 5.4. Recordkeeping Requirements

5.4.1. Compliance with Sections 3.4.4 and 3.4.5 may be shown by keeping similar records required by the requirements of the Startup, Shutdown, and Malfunction Plan as contained in 40 C.F.R. 63, Subpart A and as may be amended by specific MACT subpart requirements.
**[45CSR13, R13-1849, 4.4.4]**

5.4.2. Records of all monitoring data required by Section 5.2.1 shall be maintained onsite as follows:

5.4.2.1. All monitoring data required by Section 5.2.1, as specified in Appendix C.1, shall be maintained onsite for a period of no less than five (5) years. Such records may include strip charts, electronic data system records, and hand-written data forms. Certified copies of these records shall be made available to the Director of the Division of Air Quality or his or her duly authorized representative upon request.

5.4.2.2. For each out-of-range occurrence of a monitoring parameter value for the averaging period specified in Appendix C.1, records stating the starting date/time and duration of the control device's out-of-range alarm or reading, the cause of the out-of-range parameter, and any corrective actions taken, shall be maintained onsite for a period of no less than five (5) years from the date of monitoring, sampling, or measurement. Certified copies of these records shall be made available to the Director of the Division of Air Quality or his or her duly authorized representative upon request.

5.4.2.3. Missed readings for a monitoring parameter data element specified in Appendix A shall not exceed 5% of the total readings in a rolling consecutive twelve (12) month period, for each monitoring parameter data element. A twelve (12) month tabulation of missing readings for each monitoring parameter element shall be maintained onsite for a period of no less than five (5) years. Certified copies of these records shall be made available to the Director of the Division of Air Quality or his or her duly authorized representative upon request.

5.4.2.4. In the event that an applicable rule or regulation (such as the MON MACT) requires monitoring more stringent than that required by Section 5.2.1, the more stringent provisions shall apply. Any such required monitoring data shall be maintained onsite for a period of no less than five (5) years. Certified copies of these records shall be made available to the Director of the Division of Air Quality or his or her duly authorized representative upon request.
**[45CSR13, R13-1849, 4.4.5; 45CSR§27-3.5 (State-Enforceable only); 45CSR§13-5.11]**

5.4.3. The permittee shall maintain records equivalent to the example emission reports supplied as Appendix C.2, Attachments A and B.
**[45CSR13, R13-1849, 4.4.6]**

5.4.4. The permittee shall maintain records of all monitoring data required by Section 5.2.2 documenting the date and time of each visible emission check, the emission point or equipment identification number, the name or means of identification of the responsible observer, the results of the check, and, if necessary, all corrective actions taken. Such records shall be equivalent to the example form supplied as Appendix C.2, Attachment C. 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 an emission unit out of service during the normal monthly evaluation, the record of observation may note "out of service" (OOS) or equivalent. *(DLXE and DNCE)*
**[45CSR13, R13-1849, 4.4.7]**

5.4.5. Records of the date and time of the visible emission observations required by Section 5.2.3, along with the results of the observations, must be maintained for five years and made available for regulatory agency review upon request. A record must be made of any analysis of visible emissions in excess of a ten (10) percent six-minute average opacity reading, which shall include the cause of the emissions and what was done to prevent the reoccurrence of the emissions. The permittee shall make said records available to the Director or his duly authorized representative upon request. All sampling and analysis records must be maintained for a period of five (5) years.

*(DOME)*
**[45CSR13, R13-1849, 4.4.8; "Request for Alternative Monitoring System for Vent Gas Flow, Boiler Opacity and $SO_2$ Emissions" approved by EPA on February 13, 2001]**

5.4.6. To demonstrate that the facility meets the benzene waste operations exemption under 40 C.F.R. §61.342(a), the permittee shall maintain the records specified in 40 C.F.R. §61.357 for each waste stream subject to 40 C.F.R. §61.342 and determined to contain benzene by the procedures specified in 40 C.F.R. §61.355(c). **[45CSR13, R13-1849; 4.4.9; 45CSR15; 40 C.F.R. 61, Subpart FF]**

5.4.7. To demonstrate compliance with the conditions and requirements of section 5.1.12 of this permit the permittee shall generate and keep the following records for each relief device change –

5.4.7.1 Date and time of the removal of the relief valve and the date and time of the replacement of the relief valve.

5.4.7.2 A record of the vessel level variation (if applicable) over the period the pressure relief device was removed.

5.4.7.3 A calculation record documenting, at existing process conditions, the daily regulated pollutant emissions and the total regulated pollutant emissions for the removal period.

5.4.7.4 A copy of the procedure, logsheet, or instructions used for the relief valve exchange.

a. All records associated with the pressure relief valve exchange are to be kept for a minimum of 5 years. They shall be kept under the terms stated in Section 3.4.2 of this permit

b. The recordkeeping required under Section 5.4.7 of this permit may supplement, but does not replace any other recordkeeping or reporting required under MACT rules or LDAR reporting requirements.

**(***D11, D12, D14, D15, D16, D17, D18, D20, D21, D27, D35, D37, D39, D40, D44, D46, D52, D57, D59, D63,D65, D66, and D69)* **[45CSR13, R13-1849, 4.4.12; 45CSR§21-40.4(e) (State-Enforceable only)]**

5.4.8. **Process Wastewater.** To demonstrate compliance with the process wastewater requirements of the Acetal MACT [40 C.F.R. 63, Subpart YY] found in Section 5.1.7.4 of this permit, the permittee shall keep the following records: **[45CSR13, R13-1849, 4.4.13]**

5.4.8.1 Permittee shall keep a record of each determination of wastewater stream Group classification. This record shall be available upon request by the Director or an authorized representative of the Director and shall contain the following information: **[45CSR13, R13-1849, 4.4.13.1; 45CSR34; 40 C.F.R. §63.147(b)(8)]**

a. Process unit identification and description of the process unit.
**[45CSR34; 40 C.F.R. §63.147(b)(8)(i)]**

b. Stream identification code.
**[45CSR34; 40 C.F.R. §63.147(b)(8)(ii)]**

c. For existing sources, concentration of table 9 compound(s) in parts per million, by weight. Include documentation of the methodology used to determine the concentration.
**[45CSR34; 40 C.F.R. §63.147(b)(8)(iii)]**

d. Flow rate in liter per minute.
**[45CSR34; 40 C.F.R. §63.147(b)(8)(iv)]** *(DOP)*

5.4.9. **Maintenance Wastewater.** To demonstrate compliance with the Maintenance Wastewater provisions of the Acetal MACT [40 C.F.R. 63, Subpart YY] found in Section 5.1.7.5 of this permit the permittee shall keep the following records: **[45CSR13, R13-1849, 4.4.14]**

5.4.9.1 Each owner or operator of a source subject to this subpart shall comply with the requirements of paragraphs (b) through (e) of this section [40 C.F.R. §63.105] for maintenance wastewaters containing those organic HAP's listed in table 9 of 40 C.F.R. 63, Subpart G of this part. **[45CSR13, R13-1849, 4.4.14.1; 45CSR34; 40 C.F.R. §63.105(a)]**

5.4.9.2 The owner or operator shall prepare a description of maintenance procedures for management of wastewaters generated from the emptying and purging of equipment in the process during temporary shutdowns for inspections, maintenance, and repair (i.e., a maintenance-turnaround) and during periods which are not shutdowns (i.e., routine maintenance). The descriptions shall: **[45CSR13, R13-1849, 4.4.14.2; 45CSR34; 40 C.F.R. 63.105(b)]**

a. Specify the process equipment or maintenance tasks that are anticipated to create wastewater during maintenance activities.
**[45CSR13, R13-1849, 4.4.14.2.1; 45CSR34; 40 C.F.R. 63.105(b)(1)]**

b. Specify the procedures that will be followed to properly manage the wastewater and control organic HAP emissions to the atmosphere; and
**[45CSR13, R13-1849, 4.4.14.2.2; 45CSR34; 40 C.F.R. 63.105(b)(2)]**

c. Specify the procedures to be followed when clearing materials from process equipment.
**[45CSR13, R13-1849, 4.4.14.2.3; 45CSR34; 40 C.F.R. 63.105(b)(3)]**

5.4.9.3 The owner or operator shall modify and update the information required by 5.4.9.2 as needed following each maintenance procedure based on the actions taken and the wastewaters generated in the preceding maintenance procedure.
**[45CSR13, R13-1849, 4.4.14.3; 45CSR34; 40 C.F.R. §63.105(c)]**

5.4.9.4 The owner or operator shall implement the procedures described in 5.4.9.2 and 5.4.9.3 as part of the start-up, shutdown, and malfunction plan required under §63.6(e)(3) of subpart A of this part. **[45CSR13, R13-1849, 4.4.14.4; 45CSR34; 40 C.F.R. §63.105(d)]**

5.4.9.5 The owner or operator shall maintain a record of the information required by 5.4.9.2 and 5.4.9.3 as part of the start-up, shutdown, and malfunction plan required under 40 C.F.R. §63.6(e)(3) of subpart A of this part.
**[45CSR13, R13-1849, 4.4.14.5; 45CSR34; 40 C.F.R. §63.105(e)]**

5.4.10. **Liquids in Open System.** To demonstrate compliance with the Liquids in Open System provisions of the Acetal MACT [40 C.F.R. 63, Subpart YY] found in Section 5.1.7.6 of this permit the permittee shall keep the following records:
**[45CSR13, R13-1849, 4.4.15]**

5.4.10.1 The permittee shall maintain the records of the determinations for streams within the boundaries of the process covered by 40 C.F.R. 63, Subpart YY.
**[45CSR13, R13-1849, 4.4.15.1]**

a. The determinations of applicability for the streams within the boundaries of the process are to be reviewed and revised when necessary in response to process changes that may

result in changes to the wastewater characteristics.
**[45CSR13, R13-1849, 4.4.15.1.1]**

5.4.11. **Bypass Valves.** To demonstrate compliance with the requirements of 40 C.F.R. §63.983(a)(3)(i) found in Section 5.1.8.1.a.iii.A of this permit the permittee shall perform the following:

5.4.11.1 Maintain a continuous monitor of the bypass valve position and record the time the bypass valve is opened to the atmosphere for emission points DOJ and DOV.

a. Report the periods of bypass as part of the required Acetal MACT periodic report.

*(DOJ and DOV)* **[45CSR13, R13-1849, 4.4.16; 45CSR34; 40 C.F.R. §§63.998(d)(1)(ii)(A)]**

5.4.12. **Closed Vent System Recordkeeping Requirements.** To demonstrate compliance with the Closed Vent System Monitoring requirements found in 40 C.F.R. §63.983(b) and in Section 5.2.6 of this permit the permittee shall perform the following:
**[45CSR13, R13-1849, 4.4.17]**

5.4.12.1. Perform a special monitoring run of all components in the closed vent system using the methods and practices documented in 40 C.F.R. 63, Subpart UU.

a. Retain the records on-site for review.
**[45CSR13, R13-1849, 4.4.17.1; Notification of Compliance Status Report dated February 11, 2003]**

5.4.12.2. The permittee shall record the identification of all parts of the closed vent system, that are designated as unsafe or difficult to inspect, an explanation of why the equipment is unsafe or difficult to inspect, and the plan for inspecting the equipment required by 5.2.6.2.b or 5.2.6.3.b.
**[45CSR34; 40 C.F.R. §63.998(d)(1)(i)]**

5.4.12.3. For a closed vent system collecting regulated material from a regulated source, when a leak is detected as specified in 5.2.6.7, the information specified in 5.4.12.3.a through 5.4.12.3.f shall be recorded and kept for 5 years.
**[45CSR34; 40 C.F.R. §63.998(d)(1)(iii)]**

a. The instrument and the equipment identification number and the operator name, initials, or identification number.
**[45CSR34; 40 C.F.R. §63.998(d)(1)(iii)(A)]**

b. The date the leak was detected and the date of the first attempt to repair the leak.
**[45CSR34; 40 C.F.R. §63.998(d)(1)(iii)(B)]**

c. The date of successful repair of the leak.
**[45CSR34; 40 C.F.R. §63.998(d)(1)(iii)(C)]**

d. The maximum instrument reading measured by the procedures in 5.2.6.5 after the leak is successfully repair or determined to be nonrepairable.
**[45CSR34; 40 C.F.R. §63.998(d)(1)(iii)(D)]**

e. "Repair delayed" and the reason for the delay if a leak is not repaired within 15 days after discovery of the leak. The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.
**[45CSR34; 40 C.F.R. §63.998(d)(1)(iii)(E)]**

f. Copies of the Periodic Reports as specified in 5.5.2, if records are not maintained on a computerized database capable of generating summary reports from the records.
**[45CSR34; 40 C.F.R. §63.998(d)(1)(iii)(F)]**

5.4.12.4. For each instrumental or visual inspection conducted in accordance with 5.2.6.1 for closed vent systems collecting regulated material from a regulated source during which no leaks are detected, the owner or operator shall record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.
**[45CSR34; 40 C.F.R. §63.998(d)(1)(iv)]**

5.4.13. **Flare.** To demonstrate compliance with the requirements of 5.2.7 for flare monitoring under 40 C.F.R. §63.987(c) the permittee shall:

5.4.13.1. Keep up to date and readily accessible hourly records of whether the monitor is continuously operating and whether the flare flame or at least one pilot flame is continuously present by recording the condition of the thermocouples.
**[45CSR13, R13-1849, 4.4.18.1; 45CSR34; 40 C.F.R. §63.998(a)(1)(ii)]**

5.4.13.2. Keep records of the times and duration of all periods during which the flare flame or all the pilot flames are absent. This record shall be submitted in the periodic reports as specified in 5.5.2.2.
**[45CSR34; 40 C.F.R. §63.998(a)(1)(iii)(A)]**

5.4.13.3. Keep records of the times and durations of all periods during which the monitor is not operating.
**[45CSR34; 40 C.F.R. §63.998(a)(1)(iii)(B)]**
*(HZZE)*

5.4.14. **Incinerators, Boilers and Process Heaters.** To demonstrate compliance with the requirements of 5.2.8 for Incinerators, Boilers and Process Heater monitoring under 40 C.F.R. §63.988(c) the permittee shall: **[45CSR13, R13-1849, 4.4.19]**

5.4.14.1. The permittee shall install and operate a temperature monitoring device in the firebox (Combustion chamber) and keep a continuous record of the temperature.
**[45CSR13, R13-1849, 4.4.19.1; 45CSR34; 40 C.F.R. §63.998(c)(2)(i)]**

a. The unit will be operated with the 3-hour rolling average temperature above the minimum temperature demonstrated during the most recent performance test.
**[45CSR13, R13-1849, 4.4.19.1.1]**

b. Periods where the average firebox temperature is not above the minimum temperature shall be reported as part of the Acetal MACT periodic report.
**[45CSR13, R13-1849, 4.4.19.1.2]**

5.4.14.2. The permittee shall keep records of the daily average value of each continuously monitored parameter (specified in 5.2.8) for each operating day. The daily average shall be calculated as the average of all values for a monitored parameter recorded during the operating day. The average shall cover a 24-hour period if operation is continuous.
[**45CSR34; 40 C.F.R. §§63.998(b)(3)(i)(A) and 63.998(c)(2)(ii)]**

5.4.14.3. The permittee shall keep up-to-date, readily accessible records of periods of operation during

which the parameter boundaries established in 5.2.8 are exceeded and the cause for the exceedance.
**[45CSR34; 40 C.F.R. §§63.998(c)(2)(iii) and (d)(5)]**
*(DOME)*

5.4.15. **Absorbers, Condensers, and Carbon Adsorbers used as control devices.** To demonstrate compliance with the requirements of 5.2.9 for Absorbers, Condensers, Carbon Adsorbers used as control devices monitoring under 40 C.F.R. §63.990(c) the permittee shall:
**[45CSR13, R13-1849, 4.4.20]**

5.4.15.1 Absorbers, condensers, and carbon adsorbers used to comply with the provisions of 40 C.F.R. 63, Subparts SS and YY shall be operated at all times when emissions are vented to them. The permittee shall keep a record of all periods when the Scrubber DAKC is not operating when the unit has emissions routed to the unit.
**[45CSR13, R13-1849, 4.4.20.1; 45CSR34; 40 C.F.R. 63.990(a)(2)]**

5.4.15.2 Keep a continuous record of the daily average for each of the required operating parameters for the scrubber DAKC

a. Scrubbing Liquid temperature

b. Scrubbing Liquid specific gravity
**[45CSR13, R13-1849, 4.4.20.2]**

5.4.15.3 Periods when the measured values (daily average) are not within the specified operating ranges will be reported as part of the Acetal MACT periodic report.
**[45CSR13, R13-1849, 4.4.20.3]**

5.4.15.4. Maintain a continuous record of each continuously monitored parameter specified to be monitored under 5.2.9.
**[45CSR34; 40 C.F.R. §63.998(c)(3)(i)]**

5.4.15.5. Keep records of the daily average value of each continuously monitored parameter (specified in 5.2.9) for each operating day. The daily average shall be calculated as the average of all values for a monitored parameter recorded during the operating day. The average shall cover a 24-hour period if operation is continuous.
**[45CSR34; 40 C.F.R. §§ 63.998(b)(3)(i)(A) and 63.998(c)(3)(ii)]**

5.4.15.6. The permittee shall keep up-to-date readily accessible records of periods of operation during which the parameter boundaries established in 5.2.9 are exceeded and the cause for the exceedance.
**[45CSR34; 40 C.F.R. §§63.998(c)(3)(iii) and (d)(5)]** *(DAKE)*

5.4.16. **Continuous parameter monitoring systems (CPMS).** The permittee shall maintain the following records for each nonflare CPMS:
**[45CSR34; 40 C.F.R. §63.998(c)(1)]**

5.4.16.1. A record of the procedure used for calibrating the CPMS.
**[45CSR34; 40 C.F.R. §63.998(c)(1)(i)]**

5.4.16.2. Records of the information specified in 5.4.16.2.a through 5.4.16.2.h.
**[45CSR34; 40 C.F.R. §63.998(c)(1)(ii)]**

a. The date and time of completion of calibration and preventive maintenance of the CPMS.
**[45CSR34; 40 C.F.R. §63.998(c)(1)(ii)(A)]**

b. The "as found" and "as left" CPMS readings, whenever an adjustment is made that affects the CPMS reading and a "no adjustment" statement otherwise.
**[45CSR34; 40 C.F.R. §63.998(c)(1)(ii)(B)]**

c. The start time and duration or start and stop times of any periods when the CPMS is inoperative.
**[45CSR34; 40 C.F.R. §63.998(c)(1)(ii)(C)]**

d. Records of the occurrence and duration of each start-up, shutdown, and malfunction of CPMS used to comply with 40 C.F.R. 63, Subpart SS during which excess emissions (as defined in a referencing subpart occur.
**[45CSR34; 40 C.F.R. §63.998(c)(1)(ii)(D)]**

e. For each start-up, shutdown, and malfunction during which excess emissions as defined in a referencing subpart occur, records whether the procedures specified in the source's start-up, shutdown, and malfunction plan were followed, and documentation of actions taken that are not consistent with the plan. These records may take the form of a "checklist," or other form of recordkeeping that confirms performance with the start-up, shutdown, and malfunction plan for the event.
**[45CSR34; 40 C.F.R. §63.998(c)(1)(ii)(E)]**

f. Records documenting each start-up, shutdown, and malfunction event.
**[45CSR34; 40 C.F.R. §63.998(c)(1)(ii)(F)]**

g. Records of the CPMS start-up, shutdown, and malfunction event that specify that there were no excess emissions during the event, as applicable.
**[45CSR34; 40 C.F.R. §63.998(c)(1)(ii)(G)]**

h. Records of the total duration of operating time.
**[45CSR34; 40 C.F.R. §63.998(c)(1)(ii)(H)]**

5.4.17. **Regulated Source and Control Equipment start-up, shutdown and malfunction records.** The permittee shall maintain the following:

5.4.17.1. Records of the occurrence and duration of each start-up, shutdown and malfunction of operation of process equipment or of air pollution control equipment used to comply with 40 C.F.R. 63, Subpart SS during which excess emissions occur.
**[45CSR34; 40 C.F.R. §63.998(d)(3)(i)]**

5.4.17.2. For each start-up, shutdown, and malfunction during which excess emissions occur, records that the procedures specified in the source's start-up, shutdown, and malfunction plan were followed, and documentation of actions taken that are not consistent with the plan. For example, if a start-up, shutdown, and malfunction plan includes procedures for routing control device emissions to a backup control device, records must be kept of whether the plan was followed. These records may take the form of a "checklist," or other form of recordkeeping that confirms conformance with the start-up, shutdown, and malfunction plan for the event.
**[45CSR34; 40 C.F.R. §63.998(d)(3)(ii)]**

5.4.18. The permittee shall keep an up-to date, readily accessible record of the following data measured during each performance test. Where a condenser is the final recovery device in the recovery system, the average exit (product side) temperature measured at least every 15 minutes and average over the same time period of the performance testing while the vent stream is routed and constituted normally.

*(DML)* **[45CSR13, R13-1849, 4.1.6; 45CSR16; 40 C.F.R. §§60.665(b) and (b)(4)(ii)]**

5.4.19. The permittee shall keep up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored under 5.2.11, 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. The Administrator 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 all 3-hour periods of operation during which the average exit (product) side condenser operating temperature was more than 6 $^{o}$C (11 $^{o}$F) above the average exit (product side) operating temperature during the most recent performance test.
*(DML)* **[45CSR13, R13-1849, 4.1.6; 45CSR16; 40 C.F.R. §§63.665(g) and (g)(2)]**

5.4.20. The permittee shall keep up-to-date, readily accessible records of:

5.4.20.1. Any changes in production capacity, feedstock type, or catalyst type, or of any replacement, removal or addition of recovery equipment or a distillation unit;

5.4.20.2. Any recalculation of the TRE index value performed pursuant to 40 C.F.R. §60.664(f); and

5.4.20.3. The results of any performance test performed pursuant to the methods and procedures required by 40 C.F.R. §60.664(d).

*(DML)* **[45CSR13, R13-1849, 4.1.6; 45CSR16; 40 C.F.R. §63.665(h)]**

5.4.21. The permittee shall maintain records of all monitoring data required by Section 5.2.12 documenting the date and time of each visible emission check, the emission point or equipment identification number, the name or means of identification of the responsible observer, the results of the check, and, if necessary, all corrective actions taken. Such records shall be equivalent to the example form supplied as Appendix C.2, Attachment C. Should a visible emission observation be required to be performed per the requirements specified in 40 C.F.R. 60, Appendix A, Method 9, the data records of each observation shall be maintained per the requirements of 40 C.F.R. 60, Appendix A, Method 9. For an emission unit out of service during the normal monthly evaluation, the record of observation may note "out of service" (OOS) or equivalent. **[45CSR§30-5.1.c]**

5.4.22. The permittee shall maintain records of the date and time of start-up and shutdown and the quantity of each fuel (natural gas and comparable fuel) consumed on a daily basis in the Comparable Fuels Boiler (DOM). For the comparable fuel, the permittee shall also maintain fuel quality analysis records as specified in 5.2.4. Records of all required monitoring data and support information shall be maintained on-site for a period of at least five (5) years from the date of monitoring, sampling, measurement or reporting. Support information includes all calibration and maintenance records and all strip chart recordings for continuous monitoring instrumentation, and copies of all required reports. Where appropriate the owner or operator of a fuel burning unit(s) may maintain such records in electronic form. Compliance with this streamlined limit assures compliance with the less stringent monthly fuel consumption recordkeeping requirements of 45CSR§2A-7.1.a and the less stringent 40 C.F.R. §60.48c(i) requirement that records be maintained for two years.
[**45CSR§§2-8.3.c and 8.3.d; 45CSR§§2A-7.1.a, 7.1.a.1, 7.1.a.5, 7.1.a.6, and 7.1.b; 45CSR§§10-8.3.c and 8.3.d; 45CSR§§10A-7.1.a and 7.1.d; 45CSR16; 40 C.F.R. §§60.48c(g) and (i)]**

5.4.23. **40 C.F.R. 63, Subpart UU Recordkeeping Requirements for Equipment Leaks.** The permittee shall comply with all applicable recordkeeping requirements of 40 C.F.R. 63, Subpart U – "National Emission Standards for Equipment Leaks – Control Level 2 Standards" as specified in 40 C.F.R. §63.1038 (Recordkeeping requirements).
**[45CSR34; 40 C.F.R. 63, Subpart UU; 40 C.F.R. §63.1038]**

5.4.24. For each storage tank subject to 40 C.F.R. 63, Subpart EEEE having a capacity of less than 18.9 cubic meters (5,000 gallons) and for each transfer rack subject to this subpart that only unloads organic liquids (i.e., no organic liquids are loaded at any of the transfer racks), you must keep documentation that verifies that each storage tank and transfer rack is not required to be controlled. The documentation must be kept up-to-date (i.e., all such emission sources at a facility are identified in the documentation regardless of when the documentation was last compiled) and must be in a form suitable and readily available for expeditious inspection and review according to 40 C.F.R. §63.10(b)(1), including records stored in electronic form in a separate location. The documentation may consist of identification of the tanks and transfer racks identified in 5.4.24 on a plant site plan or process and instrumentation diagram (P&ID). **[45CSR34; 40 C.F.R. §63.2343(a)]**

5.4.25. For each storage tank subject to 40 C.F.R. 63, Subpart EEEE having a capacity of 18.9 cubic meters (5,000 gallons) or more that is not subject to control based on the criteria specified in Table 2 of 40 C.F.R. 63, Subpart EEEE, items 1 through 6, you must keep documentation, including a record of the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid, that verifies the storage tank is not required to be controlled under 40 C.F.R. 63, Subpart EEEE. The documentation must be kept up-to-date and must be in a form suitable and readily available for expeditious inspection and review according to 40 C.F.R. §63.10(b)(1), including records stored in electronic form in a separate location. *(DIN, DIR, and DIS)* **[45CSR34; 40 C.F.R. §§63.2343(b) and (b)(3)]**

5.4.26. For each transfer rack subject to 40 C.F.R. 63, Subpart EEEE that loads organic liquids but is not subject to control based on the criteria specified in Table 2 of 40 C.F.R. 63, Subpart EEEE, items 7 through 10, you must keep documentation, including the records specified in 40 C.F.R. §63.2390(d), that verifies the transfer rack is not required to be controlled under 40 C.F.R. 63, Subpart EEEE. The documentation must be kept up-to-date and must be in a form suitable and readily available for expeditious inspection and review according to 40 C.F.R. §63.10(b)(1), including records stored in electronic form in a separate location.
**[45CSR34; 40 C.F.R. §§63.2343(c) and (c)(3)]**

5.4.27. To demonstrate compliance with the alternative operating scenario (AOS) requirements of Condition 5.1.7.7 of this permit, the permittee shall maintain the following records for each AOS event:

a. Date and time that the facility stopped production;

b. Date and time of material transfers following production stoppage;

c. Inventory of the process equipment identified in the AOS section of the Emissions Unit Table at the time the AOS period begins;

d. Date and time that the AOS period begins;

e. Inventory records for the AOS equipment listed in Table 5.1.7.7.2 during the period of AOS;

f. Inventory records of the equipment identified in Table 5.1.7.7.1 at the time the AOS period begins; and

g. Start-up records to verify the date and time that the AOS period has concluded and that the facility has resumed the normal operating scenario.

**[45CSR13, R13-1849, Condition 4.4.22]**

5.4.28. **40 C.F.R. 63, Subpart YY Recordkeeping Requirements.** The permittee shall comply with all applicable recordkeeping requirements of 40 C.F.R. 63, Subpart YY – "National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Maximum Achievable Control Technology Standards" as specified in 40 C.F.R. §63.1109 (Reecordkeeping requirements).
**[45CSR34; 40 C.F.R. 63, Subpart YY; 40 C.F.R. §60.1109]**

5.4.29. For the purpose of demonstrating compliance with requirement 5.1.14, the permittee shall maintain records of the number of capper maintenance events that are vented through emission point DEME on a 12 month rolling average.
**[45CSR13, R13-1849, 4.4.23]**

## 5.5. Reporting Requirements

5.5.1. The permittee shall submit a semi-annual report (except as provided in 5.5.1.9) to the Director, including the following information, as applicable:

5.5.1.1. Calendar dates covered in the reporting period;
**[45CSR13, R13-1849, 4.5.1.a; 45CSR16; 40C.F.R.§60.48c(e)(1)]**

5.5.1.2. Date and time of startup and shutdown;
**[45CSR13, R13-1849, 4.5.1.b; 45CSR16; 40C.F.R.§60.7(b), 45CSR§10-8.3.c, and 45CSR§10A-7.1.a]**

5.5.1.3. The amounts of each fuel (gaseous and liquid) combusted during each day;
**[45CSR13, R13-1849, 4.5.1.c; 45CSR16; 40C.F.R.§60.48c(g), 45CSR§10-8.3.c, and 45CSR§10A-7.1.a]**

5.5.1.4. The quantity of waste gas fed to the boiler during each day;
[**45CSR13, R13-1849, 4.5.1.d]**

5.5.1.5. A fuel analysis on all fuels (natural gas and organic liquid), which quantifies the BTU and sulfur content of each shall be maintained according to the schedule specified in Section 5.2.4;
**[45CSR13, R13-1849, 4.5.1.e]**

5.5.1.6. The raw material sulfur content (weight percent), calculated during the reporting period, at intervals specified in 4.2.4;
**[45CSR13, R13-1849, 4.5.1.f; 45CSR16; 40C.F.R.§60.48c(e)(2)]**

5.5.1.7. Reasons for any noncompliance with the emission standards; and a description of corrective actions taken;
**[45CSR13, R13-1849, 4.5.1.g; 45CSR16; 40C.F.R.§60.48c(e)(3)]**

5.5.1.8. Identification of any times when emission data have been excluded from the calculation of average emission rates, justification for excluding data, and a description of corrective actions taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit;
**[45CSR13, R13-1849, 4.5.1.h; 45CSR16;40C.F.R.§60.48c(e)(5)]**

5.5.1.9. A "Monitoring Summary Report" and an "Excursion and Monitoring Plan Performance Report" pursuant to 45CSR§10-8.3 and 45CSR§10A-7.2.b shall be submitted on a quarterly basis;
**[45CSR13, R13-1849, 4.5.1.i; 45CSR§10-8.3; 45CSR§10A-7.2.b]**

To minimize emissions during excursions a response plan as specified by 45CSR§10-8.2 and 45CSR§10A-6.4.g shall be defined and in place upon startup of operations permitted herein. The response plan referenced here shall be kept onsite and made available to the Director or his duly authorized representative upon request.

These reports shall be submitted to the Director each six-month period (except as provided in 5.5.1.9) as specified in 40 C.F.R. §60.48c(j), 45CSR§10-8.3, 45CSR§10A-7.2.b, respectively. In addition, a "Periodic

Report" and a "Notification of Compliance Status" shall also be submitted according to 40 C.F.R. 63, Subpart SS on a semi-annual basis as referenced in Section 5.5.2.
*(DOM)* **[45CSR13, R13-1849, 4.5.1; 45CSR§10-8.3; 45CSR§10A-7.2.b; 45CSR16; 40 C.F.R. §60.48c(j)]**

5.5.2. In order to demonstrate compliance with Acetal Resin portion of the Generic MACT, 40 C.F.R. 63, Subpart YY and Subpart SS referenced therein the applicable recordkeeping and reporting requirements of these subparts shall be adhered to. Periodic reports shall include the reporting period dates, the total source operating time for the reporting period, and, as applicable, all information specified in 40 C.F.R. §63.999, including reports of periods when monitored parameters are outside their established ranges.
**[45CSR13, R13-1849, 4.5.2; 40 C.F.R. §63.999(c)(1)]**

5.5.2.1. **Bypass lines.** Times of all periods recorded under 5.4.11 when the vent stream is diverted from the control device through a bypass line.
*(DOJ and DOV)* **[45CSR34; 40 C.F.R. §63.999(c)(2)(ii)]**

5.5.2.2. **Flares.** All periods when all pilot flames were absent or the flare flame was absent as recorded in 5.4.13.
*(HZZE)* **[45CSR34; 40 C.F.R. §63.999(c)(3)]**

5.5.2.3. **All other Controls.** The daily average values of monitored parameters for any days when the daily average value is outside the bounds as defined in 5.4.14.3 and 5.4.15.6 for, or the data availability requirements defined in 5.5.2.3.a though 5.5.2.3.d are not met, whether these excursions are excused or unexcused excursions.

a. When the daily average value of one or more monitored parameters is outside the permitted range.

b. When the period of control or recovery device operation is 4 hour or greater in an operating day and monitoring data are insufficient to constitute a valid hour of data for at least 75 percent of the operating hours.

c. When the period of control or recovery device operation is less than 4 hours in an operating day and more than one of the hours during the period of operation does not constitute a valid hour of data due to insufficient monitoring data.

d. Monitoring data are insufficient to constitute a valid hour of data as used in 5.5.2.3.b and 5.5.2.3.c, if measured values are unavailable for any of the 15-minute periods within the hour.

*(DOME and DAKE)* **[45CSR34; 40 C.F.R. §63.999(c)(6)(i)]**

5.5.3. The permittee shall submit semiannual reports of the following recorded information:

5.5.3.1. Exceedances of monitored parameters recorded under 5.4.19.
**[45CSR13, R13-1849, 4.1.6; 45CSR16; 40 C.F.R. §60.665(l)(1)]**

5.5.3.2. Any recalculation of the TRE index values, as recorded under 5.4.20.2.
**[45CSR13, R13-1849, 4.1.6; 45CSR16; 40 C.F.R.§§ 60.665 (l)(7)]**
*(DML)*

5.5.4. **40 C.F.R. 63, Subpart UU Reporting Requirements for Equipment Leaks.** The permittee shall comply with all applicable reporting requirements of 40 C.F.R. 63, Subpart UU – "National Emission Standards for Equipment Leaks – Control Level 2 Standards" as specified in 40 C.F.R. §63.1039 (Reporting requirements).
**[45CSR34; 40 C.F.R. 63, Subpart UU; 40 C.F.R. §63.1039]**

5.5.5. If one or more of the events identified in paragraphs 5.5.5.1 through 5.5.5.4 occur since the filing of the Notification of Compliance Status or the last Compliance report, you must submit a subsequent Compliance report as specified in 5.4.25 and 5.4.26. The subsequent Compliance report shall be submitted according to the schedule in 40 C.F.R. §63.2386(b).

5.5.5.1. Any storage tank or transfer rack became subject to control under 40 C.F.R. 63, Subpart EEEE; or

5.5.5.2. Any storage tank equal to or greater than 18.9 cubic meters (5,000 gallons) became part of the affected source but is not subject to any of the emission limitations, operating limits, or work practice standards of 40 C.F.R. 63, Subpart EEEE.

5.5.5.3. Any transfer rack (except those racks at which only unloading of organic liquids occurs) became part of the affected source; or

5.5.5.4. Any of the information required in 40 C.F.R. §§63.2386(c)(1), (c)(2), or (c)(3) has changed.
**[45CSR34; 40 C.F.R. §§63.2343(b)(2)(i), (c)(2)(i), and (d)]**

5.5.6. **40 C.F.R. 63, Subpart YY Reporting Requirements.** The permittee shall comply with all applicable reporting requirements of 40 C.F.R. 63, Subpart YY – "National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Maximum Achievable Control Technology Standards" as specified in 40 C.F.R. §63.1110 (Reporting requirements).
**[45CSR34; 40 C.F.R. 63, Subpart YY; 40 C.F.R. §60.1110]**

## 5.6. Compliance Plan

N/A

# 6.0 Finishing

## 6.1. Limitations and Standards

6.1.1. The Acetal Resins Finishing Area shall be limited to five (5) individual polymer extrusion lines comprised of the emission sources, pollution control equipment, and associated emission points identified in Section 1.0 – *Finishing* of this permit.
**[45CSR13, R13-2381, 4.1.1]**

6.1.2. Fabric filters for the purpose of controlling particulate matter shall be installed and maintained so to provide the performance and minimum control efficiency documented as Bagfilter Performance and Compliance Monitoring in APPENDIX D.1 of this permit.
**[45CSR13, R13-2381, 4.1.2 and APPENDIX A of R13-2381]**

6.1.3. The maximum hourly and annual emission rates through the emission points identified in Section 1.0 - *Finishing* of this permit shall not exceed the emission rates documented as the Maximum Permitted Emission Rates in APPENDIX D.2 of this permit. For the purposes of determining compliance with these emission limits, the hourly and annual emission rates shall be calculated by the methods defined in 6.4.3 and 6.4.4, respectively. Compliance with the hourly PM emission limits for DQC-E/DQG-E, DQE-E, DQK-E, DQM-E, DQN-E, DQO-E, DQY-E, DRA-E, DRY-E/HCL-E, DSB-E, DSN-E, DSO-E, DST-E, DSZ-E, DTF-E, DTG-E, DTH-E, DTI-E, DTJ-E, DTK-E, DTL-E, DTM-E, DTN-E, DTO-E, DTZ-E, DUB-E, DUC-E, DUD-E, DUK-E, DUQ-E, DUR-E, DUW-E, DUX-E, DUY-E, DUZ-E, DVA-E, DVI-E, DVJ-E, DVN-E, DWA-E, DWK-E, DWU-E, DWV-E, DWW-E, DWX-E, DZB-E, DZG-E, HCA-E, HDW-E, HDY-E, HEE-E, HEG-E, HEO-E, HEQ-E, HES-E, HET-E, HFP-E, HFZ-E, and HGW-E from APPENDIX D.2 shall demonstrate compliance with the less stringent hourly PM emission limits from 45CSR§7-4.1.
**[45CSR13, R13-2381, 4.1.3 and APPENDIX B of R13-2381; 45CSR§7-4.1]**

6.1.4. The total maximum annual emissions from the Finishing Area shall be limited to the pollutants and associated emission rates as shown in Table 6.1.4.

**Table 6.1.4.**

| Limit | PM | VOCs | HAPs |
|---|---|---|---|
| **Annual (tons/year)** | 4.36 | 7.37 | 4.69 |

**[45CSR13, R13-2381, 4.1.4]**

6.1.5. The total speciated HAPs emissions from the Finishing Area shall be limited to those components and associated emission rates identified in Table 6.1.5.

**Table 6.1.5.**

| Emission Limit | Formaldehyde | Methanol | Styrene |
|---|---|---|---|
| **Hourly (pounds/hour)** | 1.73 | 0.02 | 0.08 |
| **Annual (tons/year)** | 4.27 | 0.08 | 0.34 |

**[45CSR13, R13-2381, 4.1.5]**

6.1.6. **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 - *Finishing* 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, R13-2381, 4.1.7; 45CSR§13-5.11]**

6.1.7. The permittee shall not cause, suffer, allow or permit emissions 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 6.1.8 of this permit. *(DQC-E/DQG-E, DQE-E, DQK-E, DQM-E, DQN-E, DQO-E, DQY-E, DRA-E, DRY-E/HCL-E, DSB-E, DSN-E, DSO-E, DST-E, DSZ-E, DTF-E, DTG-E, DTH-E, DTI-E, DTJ-E, DTK-E, DTL-E, DTM-E, DTN-E, DTO-E, DTZ-E, DUB-E, DUC-E, DUD-E, DUK-E, DUQ-E, DUR-E, DUW-E, DUX-E, DUY-E, DUZ-E, DVA-E, DVI-E, DVJ-E, DVN-E, DWA-E, DWK-E, DWU-E, DWV-E, DWW-E, DWX-E, DZB-E, DZG-E, HCA-E, HDW-E, HDY-E, HEE-E, HEG-E, HEO-E, HEQ-E, HES-E, HET-E, HFP-E, HFZ-E, and HGW-E)*
**[45CSR§7-3.1]**

6.1.8. The provisions of Section 6.1.7 in 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. *(DQC-E/DQG-E, DQE-E, DQK-E, DQM-E, DQN-E, DQO-E, DQY-E, DRA-E, DRY-E/HCL-E, DSB-E, DSN-E, DSO-E, DST-E, DSZ-E, DTF-E, DTG-E, DTH-E, DTI-E, DTJ-E, DTK-E, DTL-E, DTM-E, DTN-E, DTO-E, DTZ-E, DUB-E, DUC-E, DUD-E, DUK-E, DUQ-E, DUR-E, DUW-E, DUX-E, DUY-E, DUZ-E, DVA-E, DVI-E, DVJ-E, DVN-E, DWA-E, DWK-E, DWU-E, DWV-E, DWW-E, DWX-E, DZB-E, DZG-E, HCA-E, HDW-E, HDY-E, HEE-E, HEG-E, HEO-E, HEQ-E, HES-E, HET-E, HFP-E, HFZ-E, and HGW-E)*
**[45CSR§7-3.2]**

6.1.9. Due to unavoidable malfunction of equipment, emissions exceeding those set forth in 45CSR7 may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.
**[45CSR§7-9.1.]**

6.1.10. The owner or operator of a cold cleaning facility shall:

a. Provide a permanent, legible, conspicuous label, summarizing the operating requirements.

b. Store waste solvent in covered containers.

c. Close the cover whenever parts are not being handled in the cleaner.

d. Drain the cleaned parts until dripping ceases.

e. If used, supply a solvent spray that is a solid fluid stream (not a fine, atomized, or shower-type spray) at a pressure that does not exceed 10 pounds per square inch gauge.

f. Degrease only materials that are neither porous nor absorbent.

*(DGA-S)* **[45CSR§§21-30.3.a.4., 30.3.a.5., 30.3.a.6., 30.3.a.7., 30.3.a.8., 30.3.a.9. ]**

## 6.2. Monitoring Requirements

6.2.1. For the purpose of determining compliance with 6.1.2, the permittee shall perform routine monitoring and record keeping in accordance to the requirements set forth in APPENDIX D.1.

a. For those bagfilter systems employed by sources with a maximum potential PM emission rate less than 6 pounds per hour, as identified in APPENDIX D.1, periodic opacity monitoring shall be required per 6.2.2 of this permit. *(DQC-E/DQG-E, DQE-E, DST-E, DSZ-E, DTZ-E, DUK-E, DUQ-E, DUR-E, DUW-E, DUX-E, DUY-E, DUZ-E, DVA-E, DVI-E, DVJ-E, DZB-E, HDW-E, HEG-E, HEO-E, HES-E, HET-E, and HFZ-E)*

b. For all bagfilter systems operating in conjunction with sources having potential PM emissions in excess of 6 pounds per hour, monitoring and record keeping of the parametric operating ranges shall be conducted and maintained in accordance with the requirements set forth in APPENDIX D.1 of this permit. *(DZG-E and HFP-E)*

**[45CSR13, R13-2381, 4.2.1]**

6.2.2. For the purpose of determining compliance with the opacity limits of 45CSR§§7-3.1 and 3.2 set forth in 6.1.7 and 6.1.8, the permittee shall conduct opacity monitoring for all emission points and equipment subject to an opacity limit under 45CSR7, including the emission points addressed in 6.1.3. The opacity monitoring shall include visual emission checks for all emission points subject to a particulate matter emission limit contained in this permit. Monitoring shall be conducted at least once per month with a maximum of forty-five (45) days between consecutive readings. These checks shall be conducted by personnel trained in the practices and limitations of 40 C.F.R. 60, Appendix A, Method 22 during periods of operation of emission sources that vent from the referenced emission points for a sufficient time interval to determine if there is a visible emission. If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct an opacity reading using the procedures and requirements of 45CSR7A within three (3) days of the first signs of visible emissions. A 45CSR7A evaluation shall not be required if the visible emission condition is corrected within seventy-two (72) hours after the

visible emission and the sources are operating at normal conditions. *(DQC-E/DQG-E, DQE-E, DQK-E, DQM-E, DQN-E, DQO-E, DQY-E, DRA-E, DRY-E/HCL-E, DSB-E, DSN-E, DSO-E, DST-E, DSZ-E, DTF-E, DTG-E, DTH-E, DTI-E, DTJ-E, DTK-E, DTL-E, DTM-E, DTN-E, DTO-E, DTZ-E, DUB-E, DUC-E, DUD-E, DUK-E, DUQ-E, DUR-E, DUW-E, DUX-E, DUY-E, DUZ-E, DVA-E, DVI-E, DVJ-E, DVN-E, DWA-E, DWK-E, DWU-E, DWV-E, DWW-E, DWX-E, DZB-E, HCA-E, HDW-E, HDY-E, HEE-E, HEG-E, HEO-E, HEQ-E, HES-E, HET-E, HFZ-E, and HGW-E)*
**[45CSR13, R13-2381, 4.2.2; 45CSR§30-5.1.c]**

6.2.3. For the purpose of determining compliance with the emission limitations established in 6.1.3, 6.1.4, and 6.1.5 of this permit, the permittee shall monitor the production and material transfer rates, and the associated process conditions necessary for calculating actual hourly and annual emissions from the operation of all affected sources associated with each extrusion line, the associated ancillary equipment, and the product transfer and packaging system, as described in 6.4.3 and 6.4.4.
**[45CSR13, R13-2381, 4.2.3]**

## 6.3. Testing Requirements

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

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

6.3.3. Any stack serving any process source operation or air pollution control device on any process source operation shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures.
**[45CSR§7-4.12]**

6.3.4. Test Method ASTM D323-72 shall be used for measuring the solvent true vapor pressure.
*(DGA-S)* **[45CSR§21-30.4.e.]**

## 6.4. Recordkeeping Requirements

6.4.1. The permittee shall maintain records of all monitoring data required by 6.2.2 of this permit, documenting the date and time of each visible emission check, the emission point or equipment identification number, the name or means of identification of the responsible observer, the results of the check, and, if necessary, all corrective actions taken. Should a visible 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 an emission unit out of service during the normal monthly evaluation, the record of observation may note "out of service" (OOS) or equivalent. These records shall be maintained according to the conditions specified in 40 C.F.R. §63.10(b)(1).
**[45CSR13, R13-2381, 4.4.4]**

6.4.2. For the purpose of demonstrating compliance with the permit limits based on the maximum permitted emission rates as described in 6.1.3, 6.1.4, and 6.1.5 of this permit, the permittee shall maintain monthly calculations of the average hourly and total annual emissions associated with the operation of all affected sources associated with each extrusion line, the associated ancillary equipment, and the product transfer and packaging system for all emission limitations of any pollutant or aggregated HAP set forth in Section 6.1 of this permit.
**[45CSR13, R13-2381, 4.4.5]**

6.4.3. Compliance with all hourly emission limits established in Section 6.1 of this permit shall be based on the calculated monthly actual emission rate for the affected source divided by the actual operating hours of the affected source within the calculated period.
**[45CSR13, R13-2381, 4.4.6]**

6.4.4. Compliance with all annual emission limits set forth by Section 6.1 of this permit shall be determined by using a 12-month rolling total. A rolling yearly total shall mean the sum of emissions at any given time for the previous twelve (12) consecutive calendar months.
**[45CSR13, R13-2381, 4.4.7]**

6.4.5. The permittee shall maintain records of all information required by this permit (including monitoring data, support information, reports, and notification), recorded in a form suitable and readily available for expeditious inspection and review. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on-site. The remaining three (3) years of data may be maintained off-site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on computer, on computer floppy disks, CDs, or DVDs, or magnetic tape disks), on microfilm, or on microfiche.

Certified copies of these records shall be made available to the Director of the Division of Air Quality or his duly authorized representative upon request. At a time prior to submittal to the Director, all records shall be certified and signed by a "Responsible Official" utilizing the Certification of Data Accuracy statement provided in APPENDIX D.3. If these records are considered to contain confidential business information as identified in the permit application for R13-2381, the records may be submitted according to the procedures set forth in 45CSR31 – "Confidential Information."
**[45CSR13, R13-2381, 4.4.8]**

6.4.6. Each owner or operator of a solvent metal cleaning source subject to this 45CSR§21-30 shall maintain the following records in a readily accessible location for at least 5 years and shall make these records available to the Director upon verbal or written request:

a. A record of central equipment maintenance, such as replacement of the carbon in a carbon adsorption unit.

b. The results of all tests conducted in accordance with the requirements in section 45CSR§21-30.4 (6.3.4).

*(DGA-S)* **[45CSR§21-30.5. and 45CSR§30-5.1.c.]**

## 6.5. Reporting Requirements

6.5.1. Except as provided in section 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.

*(DGA-S)* **[45CSR§21-5.2.]**

## 6.6. Compliance Plan

N/A

# APPENDIX A: R13-2617 APPENDICES

APPENDIX A.1 - ATTACHMENT A of R13-2617 for the Acetal Resin Production Area Only

APPENDIX A.2 - CERTIFICATION OF DATA ACCURACY

## *APPENDIX A.1*

## ATTACHMENT A of R13-2617 for the Acetal Resin Production Area Only

| Emission Point Identification | Source Identification | Source Description | Control Device ID | Service (VOC/HAP/TAP) | Affected R13 Permit | Included in the Original R21 RACM Plan | Currently Subject to: | | Other Applicable Regulations – Citation (MACT/BACT/NSPS/NESHAP etc.) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | R21 | R27 | |
| D Area | D LabHoods | Laboratory Hoods | None | TAP-F | R13-2381 | No | No | Yes | |
| D Area | D LabHoods | Laboratory Hoods | None | TAP-M | R13-2381 | No | No | Yes | |
| D02E | D02 | SRV Change | None | TAP-F | R13-1596 | No | No | Yes | 40 C.F.R. 63.119(e)(3) |
| D04E | D04 | SRV Change | None | TAP-F | R13-1596 | No | No | Yes | 40 C.F.R. 63.119(e)(3) |
| D07E | D07 | SRV Change | None | TAP-F | R13-1596 | No | No | Yes | 40 C.F.R. 63.119(e)(3) |
| D11E | D11 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D12E | D12 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D14E | D14 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D15E | D15 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D16E | D16 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D17E | D17 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D18E | D18 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D20E | D20 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D21E | D21 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D27E | D27 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D35E | D35 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D37E | D37 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D38E | D38 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D39E | D39 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| D40E | D40 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D44E | D44 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D46E | D46 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D48E | D48 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D52E | D52 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D57E | D57 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D58E | D58 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D59E | D59 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D60E | D60 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D63E | D63 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D65E | D65 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D66E | D66 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| D69E | D69 | SRV Change | None | VOC | R13-1849 | No | Yes | No | 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| DAGE | DAE | Product Tank | DAGC | VOC/TAP-F | R13-1596 | No | Yes | Yes | SOCMI HON MACT-40 C.F.R. 63.123(a) |
| DAGE | DAF | Product Tank | DAGC | VOC/TAP-F | R13-1596 | No | Yes | Yes | SOCMI HON MACT-40 C.F.R. 63.123(a) |
| DAGE | DAG | Product Tank | DAGC | VOC/TAP-F | | No | | | Removed from Service (Note #4) |
| DAGE | DAH | Recycle Tank | DAGC | VOC/TAP-F | R13-1596 | No | Yes | Yes | SOCMI HON MACT-40 C.F.R. 63.123(a) |
| DAGE | DBO | Product Loading | DBOC | TAP-F/HAP/VOC | R13-1596 | No | Yes | Yes | SOCMI HON MACT-40 C.F.R. 63.123(a) |
| DAKE | DAJ | Decanter Tank | DAKC | VOC / HAP | | Yes | | | Removed from Service (Note #4) |
| DAKE | DAM | Decanter Tank | DAKC | VOC / HAP | | Yes | | | Removed from Service (Note #4) |
| DAKE | DEC | Feed / Process Tank | DAKC | VOC / HAP | R13-1849 | Yes | Yes | No | |
| DAKE | DAL | Feed / Process Tank | DAKC | VOC / HAP | R13-1849 | Yes | Yes | Yes | Acetal MACT - 40 C.F.R. 63.1103(a), 40 C.F.R. 63.983, 40 C.F.R. 63.990, 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DAKE | DDO | Recycle Tank | DAKC | VOC / HAP | R13-1849 | Yes | Yes | Yes | Acetal MACT - 40 C.F.R. 63.1103(a), 40 C.F.R. 63.983, 40 C.F.R. 63.990, 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| DAKE | DEA | AHF Hold / Feed Tank | DAKC | VOC / HAP | R13-1849 | Yes | Yes | Yes | Acetal MACT - 40 C.F.R. 63.1103(a), 40 C.F.R. 63.983, 40 C.F.R. 63.990, 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| DAKE | DEB | AHF Mix Tank | DAKC | VOC / HAP | R13-1849 | Yes | Yes | Yes | Acetal MACT - 40 C.F.R. 63.1103(a), 40 C.F.R. 63.983, 40 C.F.R. 63.990, 40 C.F.R. 63.1108(b)(3), 40 C.F.R. 63.1108(a)(5) |
| DAKE | HAN | Tank Cleaning for source DAL | DAK | VOC / HAP | R13-1849 | No | Yes | Yes | Acetal MACT- 40 C.F.R. 63.1106(b) |
| DBJE | DBN | Recycle Splitter | DBJC | VOC/TAP-F/HAP | R13-1596 | No | Yes | Yes | 45 CSR 21-39, SOCMI HON MACT 40C.F.R.63 Subpart G, Table 3 |
| DBKE | DBK | Heat Transfer Fluid Tank | None | VOC | R13-1596 | Yes | Yes | No | |
| DCBE | DCB | Filter Change | None | VOC / HAP | | No | Yes | No | Acetal MACT - 40 C.F.R. 63.1106(a), 40 C.F.R. 63.1106(c) |
| DCCE | DCC | Filter Change | None | VOC / HAP | | No | Yes | No | Acetal MACT - 40 C.F.R. 63.1106(a), 40 C.F.R. 63.1106(c) |
| DCDE | DCD | Filter Change | None | VOC / HAP | | No | Yes | No | Acetal MACT - 40 C.F.R. 63.1106(a), 40 C.F.R. 63.1106(c) |
| DCEE | DCE | Decanter Tank | DOMC/HZZC | TAP-F | | No | Yes | No | Acetal MACT 40 C.F.R. 63.1103(a), Table 1 Exempt |
| DCFE | DCF | RS Tank | DOMC/HZZC | VOC | R13-1849 | Yes | Yes | No | Acetal MACT 40 C.F.R. 63.1103(a), Table 1 Exempt |
| DCGE | DCG | S Tank | DOMC/HZZC | VOC | R13-1849 | Yes | Yes | No | Acetal MACT 40 C.F.R. 63.1103(a), Table 1 Exempt |
| DCOE | DCO | Filter Change | None | VOC / HAP | | No | Yes | No | Acetal MACT - 40 C.F.R. 63.1106(a), 40 C.F.R. 63.1106(c) |
| DCPE | DCP | Filter Change | None | VOC / HAP | | No | Yes | No | Acetal MACT - 40 C.F.R. 63.1106(a), 40 C.F.R. 63.1106(c) |
| DCQE | DCQ | Filter Change | None | VOC / HAP | | No | Yes | No | Acetal MACT - 40 C.F.R. 63.1106(a), 40 C.F.R. 63.1106(c) |

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|---|---|---|---|---|---|---|---|---|---|
| DCRE | DCR | Filter Change | None | VOC / HAP | | No | Yes | No | Acetal MACT - 40 C.F.R. 63.1106(a), 40 C.F.R. 63.1106(c) |
| DCSE | DCS | Filter Change | None | VOC / HAP | | No | Yes | No | Acetal MACT - 40 C.F.R. 63.1106(a), 40 C.F.R. 63.1106(c) |
| DCYE | DCH | Silica Gel Bed | None | VOC / HAP | R13-1849 | No | Yes | No | Acetal MACT, 40 C.F.R. 63.1106(b) |
| DCYE | DCI | Silica Gel Bed | None | VOC / HAP | R13-1849 | No | Yes | No | Acetal MACT, 40 C.F.R. 63.1106(b) |
| DCYE | DCJ | Silica Gel Bed | None | VOC / HAP | R13-1849 | No | Yes | No | Acetal MACT, 40 C.F.R. 63.1106(b) |
| DCYE | DCV | Silica Gel Bed Regeneration Loop | None | VOC | R13-1849 | No | Yes | No | |
| DCYE | DCY | Solvent Column Maintenance | None | VOC / HAP | | No | Yes | No | Acetal MACT, 40 C.F.R. 63.1106(b) |
| DCYE | DDF | Decanter Tank | None | VOC / HAP | R13-1849 | Yes | Yes | No | Acetal MACT - 40 C.F.R. 63.1106(a), 40 C.F.R. 63.1106(b) |
| DFIE | HAV | TT Loading #1 | None | VOC | R13-1849 | Yes | Yes | No | 40 C.F.R. 63.2346(b) |
| DFIE | HAW | TT Loading #2 | None | VOC | R13-1849 | Yes | Yes | No | 40 C.F.R. 63.2346(b) |
| DFIE | HAX | TT Loading #3 | None | VOC | R13-1849 | Yes | Yes | No | 40 C.F.R. 63.2346(b) |
| DFIE | HAY | TT Loading #4 | None | VOC | R13-1849 | Yes | Yes | No | 40 C.F.R. 63.2346(b) |
| DFIE | HAZ | TT Loading #5 | None | VOC | R13-1849 | Yes | Yes | No | 40 C.F.R. 63.2346(b) |
| DGKE | DGK | PC Lump Pot | None | TAP-F/VOC | | No | No | Yes | Acetal MACT - 40 C.F.R. 63.1106(a), 40 C.F.R. 63.1106(b), 40 C.F.R. 63.1108(b)(3) |
| DGLE | DGL | PC Lump Pot | None | TAP-F/VOC | | No | No | Yes | Acetal MACT - 40 C.F.R. 63.1106(a), 40 C.F.R. 63.1106(b), 40 C.F.R. 63.1108(b)(3) |
| DGME | DGM | PC Lump Pot | None | TAP-F/VOC | | No | No | Yes | Acetal MACT - 40 C.F.R. 63.1106(a), 40 C.F.R. 63.1106(b), 40 C.F.R. 63.1108(b)(3) |
| DHVE | DHV | Reactor sampling | None | TAP-F | R13-1849 | No | No | Yes | Acetal MACT- 40 C.F.R. 63.1032 (Subpart UU) |
| DHWE | DHW | Reactor sampling | None | TAP-F | R13-1849 | No | No | Yes | Acetal MACT- 40 C.F.R. 63.1032 (Subpart UU) |
| DHXE | DHX | Reactor sampling | None | TAP-F | R13-1849 | No | No | Yes | Acetal MACT- 40 C.F.R. 63.1032 (Subpart UU) |
| DJJE | DJJ | Semi-Finished Storage Silo Maint. | DOMC/HZZC | VOC | | No | Yes | No | Acetal MACT - 40 C.F.R. 63 Subpart SS - 40 C.F.R. 63.983 - 40 C.F.R. 63.1103(a), 40 C.F.R. 63.1108(b)(3) |

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|---|---|---|---|---|---|---|---|---|---|
| DJLE | DJL | Semi-Finished Storage Silo Maint. | DOMC/HZZC | VOC | | No | Yes | No | Acetal MACT - 40 C.F.R. 63 Subpart SS - 40 C.F.R. 63.983 - 40 C.F.R. 63.1103(a), 40 C.F.R. 63.1108(b)(3) |
| DTWE | DTW | Tank | None | TAP-F / HAP | R13-1849 | No | No | Yes | |
| DLXE | DLX | Lump Pot | None | TAP-F | R13-1849 | No | No | Yes | |
| DMDE | DMD | Raking Vent | None | TAP-F | R13-1849 | No | | | Removed from Service (Note #4) |
| DMDE | DME | Raking Vent | None | TAP-F | R13-1849 | No | | | Removed from Service (Note #4) |
| DMWE | DMW | Recycle Feed Tank | None | TAP-F / VOC | R13-1849 | Yes | | | Removed from Service (Note #4) |
| DMIE | DMI | Feed / Recycle Tank | None | VOC | R13-1849 | Yes | | | Removed from Service (Note #4) |
| DMLE | DML | Distillation Column | DMLC | VOC | R13-1849 | Yes | Yes | No | 40 C.F.R. 60 Subart NNN - 40 C.F.R. 60.662, |
| DNCE | DNC | Lump Pot | None | VOC | R13-1849 | Yes | Yes | Yes | |
| DOJE | DOJ | High-High O2 Relief | None | VOC | R13-1849 | No | | | Emergency Vent |
| DOME/HZZE | DCL | Solvent Column | None | VOC | R13-1849 | No | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1 Exempt |
| DOME/HZZE | DDS | Distillation Column | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT, 40 C.F.R. 63.1103(a), 40 C.F.R. 63.983 (Subpart SS), 40 C.F.R. 63.982 (process vents), 40 C.F.R. 60 Subpart NNN - 40 C.F.R. 60.662 |
| DOME/HZZE | DDW | LBC Feed Tank | DOMC/HZZC | TAP-F/HAP/VOC | R13-1849 | No | No | Yes | Acetal MACT, 40 C.F.R. 63.1103(a), 40 C.F.R. 63.983 (Subpart SS), 40 C.F.R. 63.982 (process vents) |
| DOME/HZZE | DDX | Decanter | DOMC/HZZC | TAP-F/HAP/VOC | R13-1849 | No | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(2)(a) or (2)(b), Front End Vent |
| DOME/HZZE | DEP | Distillation Column | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT, 40 C.F.R. 63.1103(a), 40 C.F.R. 63.983 (Subpart SS), 40 C.F.R. 63.982 (process vents), 40 C.F.R. 60 Subpart NNN - 40 C.F.R. 60.662 |
| DOME/HZZE | DEU | Distillation Column | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT, 40 C.F.R. 63.1103(a), 40 C.F.R. 63.983 (Subpart SS), 40 C.F.R. 63.982 (process vents), 40 C.F.R. 60 Subpart NNN - 40 C.F.R. 60.662 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DOME/HZZE | DGQ | Reactor | DOMC/HZZC | VOC /TAP-F | R13-1849 | No | Yes | No | Acetal MACT, 40 C.F.R. 63.983 (Subpart SS), 40 C.F.R. 63.1106(b) (maintenance wastewater), 40 C.F.R. 63.1103(a) (process vents), 40 C.F.R. 63.982 |
| DOME/HZZE | DGR | Reactor | DOMC/HZZC | VOC /TAP-F | R13-1849 | No | Yes | No | Acetal MACT, 40 C.F.R. 63.983 (Subpart SS), 40 C.F.R. 63.1106(b) (maintenance wastewater), 40 C.F.R. 63.1103(a) (process vents), 40 C.F.R. 63.982 |
| DOME/HZZE | DGS | Reactor | DOMC/HZZC | VOC /TAP-F | R13-1849 | No | Yes | No | Acetal MACT, 40 C.F.R. 63.983 (Subpart SS), 40 C.F.R. 63.1106(b) (maintenance wastewater), 40 C.F.R. 63.1103(a) (process vents), 40 C.F.R. 63.982 |
| DOME/HZZE | DGV | Condenser | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(2)(a) or (2)(b), Front End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | DSC | Column | DOMC/HZZC | VOC / TAP-F | R13-1849 | No | No | YES | Acetal MACT 40C.F.R.63.1103(a), Table 1-(2)(a) or (2)(b), Front End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | DEN | Decanter | DOMC/HZZC | VOC / TAP-F | R13-1849 | No | No | YES | Acetal MACT 40C.F.R.63.1103(a), Table 1-(2)(a) or (2)(b), Front End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | DFE | Reactor Column | DOMC/HZZC | VOC / TAP-F | R13-1849 | No | No | YES | Acetal MACT 40C.F.R.63.1103(a), Table 1-(2)(a) or (2)(b), Front End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | DGX | Absorber | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(2)(a) or (2)(b), Front End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | DIC | Tank | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(3)(b), Back End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | DIE | Isolation Equipment | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(3)(b), Back End Vent, 40 C.F.R. 63.983 (Subpart SS) |

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|---|---|---|---|---|---|---|---|---|---|
| DOME/HZZE | DIF | Tank | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(3)(b), Back End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | DIG | Tank | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(3)(b), Back End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | DJT | Dryer | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(3)(b), Back End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | DJU | Dryer | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(3)(b), Back End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | DJV | Product Conveyor | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(3)(b), Back End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | DLM / HBJ | #1 SPGR Condenser | DOMC/HZZC | VOC | R13-1849 | Yes | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(3)(b), Back End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | DLR / HBK | #2 SPGR Condenser | DOMC/HZZC | VOC | R13-1849 | Yes | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(3)(b), Back End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | DMH | Recycle Tank | DOMC/HZZC | VOC | R13-1849 | Yes | Yes | No | Acetal MACT, 40 C.F.R. 63.1103(a), 40 C.F.R. 63.983 (Subpart SS), 40 C.F.R. 63.982 (process vents) |
| DOME/HZZE | DMM | Distillation Column | DOMC/HZZC | VOC | R13-1849 | Yes | Yes | No | Acetal MACT, 40 C.F.R. 63.1103(a), 40 C.F.R. 63.983 (Subpart SS), 40 C.F.R. 63.982 (process vents) |
| DOME/HZZE | DMY | Ingredient Recovery System Divert | DOMC/HZZC | VOC | R13-1849 | Yes | Yes | No | Acetal MACT, 40 C.F.R. 63.1103(a), 40 C.F.R. 63.983 (Subpart SS), 40 C.F.R. 63.982 (process vents) |
| DOME/HZZE | DOC | VRS Maintenance Divert | DOMC/HZZC | VOC | R13-1849 | Yes | Yes | No | Acetal MACT, 40 C.F.R. 63.1103(a), 40 C.F.R. 63.983 (Subpart SS), 40 C.F.R. 63.982 (process vents) |

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|---|---|---|---|---|---|---|---|---|---|
| DOME/HZZE | DOD | VRS Maintenance Divert | DOMC/HZZC | VOC | R13-1849 | Yes | Yes | No | Acetal MACT, 40 C.F.R. 63.1103(a), 40 C.F.R. 63.983 (Subpart SS), 40 C.F.R. 63.982 (process vents) |
| DOME/HZZE | DON | "B" Organic Tank | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(3)(b), Back End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | DOO | Feed / Recycle Tank | DOMC/HZZC | VOC | R13-1849 | Yes | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(3)(b), Back End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | DOP | Feed / Recycle Tank | DOMC/HZZC | VOC | R13-1849 | Yes | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(3)(b), Back End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | DOQ | Aqueous Waste Decanter Tank | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(3)(b), Back End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | DOX | Sump | DOMC/HZZC | TAP-F/VOC/HAP | R13-1849 | No | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(3)(b), Back End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | DPH | Reactor | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(3)(b), Back End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | DPL | Reactor | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(3)(b), Back End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | GAO/GAN/HAA | Intermediate Storage | DOMC/HZZC | VOC/TAP-F | R13-1849 | No | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(3)(b), Back End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | GBA/GAZ/HAB | Intermediate Storage | DOMC/HZZC | VOC/TAP-F | R13-1849 | No | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(3)(b), Back End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | GBU | Distillation Column | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT, 40 C.F.R. 63.1103(a), 40 C.F.R. 63.983 (Subpart SS), 40 C.F.R. 63.982 (process vents), 40 C.F.R. 60 Subpart NNN - 40 C.F.R. 60.662 |

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|---|---|---|---|---|---|---|---|---|---|
| DOME/HZZE | GAA | Reactor | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(3)(b), Back End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | GAB | Reactor | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(3)(b), Back End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | GAC | Reactor | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(3)(b), Back End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | HAS | Tank Cleaning for source DCF/DCG | DOM/HZZ | VOC | R13-1849 | No | Yes | No | |
| DOME/HZZE | HBC | #1 Isolation Unit Cleaning | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT - 40 C.F.R. 63.1103(a), 40 C.F.R. 63.983 (Subpart SS), 40 C.F.R. 63.982 (process vents) |
| DOME/HZZE | HBJ | #1 SPGR Condenser Wash | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT - 40 C.F.R. 63.1103(a), 40 C.F.R. 63.983 (Subpart SS), 40 C.F.R. 63.982 (process vents) |
| DOME/HZZE | HBK | #2 SPGR Condenser Wash | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT - 40 C.F.R. 63.1103(a), 40 C.F.R. 63.983 (Subpart SS), 40 C.F.R. 63.982 (process vents) |
| DOME/HZZE | HBL | #2 Isolation Unit Cleaning | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT - 40 C.F.R. 63.1103(a), 40 C.F.R. 63.983 (Subpart SS), 40 C.F.R. 63.982 (process vents) |
| DOME/HZZE | HBM | #2 Isolation Equipment | DOMC/HZZC | VOC | R13-1849 | No | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(3)(b), Back End Vent, 40 C.F.R. 63.983 (Subpart SS) |
| DOME/HZZE | HFA | PP#4 | DOM/HZZ | VOC | R13-1849 | Yes | Yes | No | |
| DOME/HZZE | HSA | PP#1 | DOM/HZZ | VOC | | Yes | | | Removed from Service (Note #4) |
| DOME/HZZE | HSB | PP#2 | DOM/HZZ | VOC | | Yes | | | Removed from Service (Note #4) |
| DOME/HZZE | HSC | PP#3 | DOM/HZZ | VOC | | Yes | | | Removed from Service (Note #4) |
| DOUE | DOU | Process Sump | None | TAP-F | R13-1849 | No | Yes | Yes | Acetal MACT - 40 C.F.R. 63.1106(a), 40 C.F.R. 63.1106(b), |
| DOVE | DOV | High-High O2 Relief | None | VOC / TAP-F | R13-1849 | No | | | Emergency Vent |
| DOWE | DOW | Process Sump | None | VOC / TAP-F | R13-1849 | Yes | Yes | Yes | Acetal MACT - 40 C.F.R. 63.1106(a), 40 C.F.R. 63.1106(b), |

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| DOXE | GAD | #1 Reactior Cleaning | DHT1/DHT2 | VOC/HAP | R13-1849 | No | Yes | No | Acetal MACT- 40 C.F.R. 63.1106(a), 40 C.F.R. 63.1106(b), 40 C.F.R. 63.990 Batch Process |
| DOXE | GAE | #2 Reactor Cleaning | DHT1/DHT2 | VOC/HAP | R13-1849 | No | Yes | No | Acetal MACT- 40 C.F.R. 63.1106(a), 40 C.F.R. 63.1106(b), 40 C.F.R. 63.990 Batch Process |
| DOXE | GAF | #3 Reactor Cleaning | DHT1/DHT2 | VOC/HAP | R13-1849 | No | Yes | No | Acetal MACT- 40 C.F.R. 63.1106(a), 40 C.F.R. 63.1106(b), 40 C.F.R. 63.990 Batch Process |
| DOYE | DOY | Process Sump | None | VOC / TAP-F | R13-1849 | Yes | Yes | Yes | Acetal MACT - 40 C.F.R. 63.1106(a) (Process Wastewater), 40 C.F.R. 63.1106(b) (Maintenance Wastewater) |
| DOZE | DOZ | Process Sump | None | VOC / TAP-F | R13-1849 | Yes | Yes | Yes | Acetal MACT - 40 C.F.R. 63.1106(a) (Process Wastewater), 40 C.F.R. 63.1106(b) (Maintenance Wastewater) |
| DPAE | DPA | Process Sump | None | VOC / TAP-F | R13-1849 | Yes | Yes | Yes | Acetal MACT - 40 C.F.R. 63.1106(a) (Process Wastewater), 40 C.F.R. 63.1106(b) (Maintenance Wastewater) |
| DPBE | DPB | Process Sump | None | VOC / TAP-F | R13-1596 | No | No | Yes | SOCMI HON MACT - 40 C.F.R. 63.132 (Process Wastewater), 40 C.F.R. 63.145 (Maintenance Wastewater), 40 FR 63.149 (open systems) |
| DPCE | DPC | Process Sump | None | VOC / TAP-F | R13-1596 | No | No | Yes | SOCMI HON MACT - 40 C.F.R. 63.132 (Process Wastewater), 40 C.F.R. 63.145 (Maintenance Wastewater), 40 FR 63.149 (open systems) |
| DPDE | DPD | Process Sump | None | VOC / TAP-F | R13-1596 | No | No | Yes | SOCMI HON MACT - 40 C.F.R. 63.132 (Process Wastewater), 40 C.F.R. 63.145 (Maintenance Wastewater), 40 FR 63.149 (open systems) |
| DPOE | DPO | On-line Concentration Analyzer | None | TAP-F | R13-1849 | No | No | Yes | |
| DQCE | DQH | Feed Bin | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |

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|---|---|---|---|---|---|---|---|---|---|
| DQCE | DQJ | Feed Bin | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQCE | DQP | Cube Hopper | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQCE | DQQ | #2 Ribbon Blender | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQCE | DQT | Blender | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQCE | DRB | Screw Conveyor | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQCE | DSY | Feed Hopper | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQCE | DWI | Feed Hopper | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQCE | DWJ | Feed Hopper | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQCE | DWQ | Wax Blender | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQCE | DWR | Rotary Valve | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQCE | HCA / DQI | Sparger Bin | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQCE | HCF / DTD | Black Feed Hopper | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQCE | HCO / HFU | Black Coating Blender | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQCE | HGF | Additive feeder | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQCE | HGG | Additive feeder | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQCE | HGH | Rotary Valve | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. |

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|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQCE | HGJ / HGI | Rotary Valve | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQCE | HGO | #6 Wax Blender - NB | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQCE | HGQ / HGP | #3 Wax Blender - B | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQEE | DUP | Transfer Blowers | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQGE | DTE | Capped Feed Blender | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTZE | DQK | Sparger | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTZE | HDB / DQM | Cooling Bin | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQNE | HCN / DWB | Sparger Bin | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQOE | DQO | Screw Conveyor | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQUE | DUQ1 | BF Loading Station | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQUE | DUQ2 | BF Loading Station | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQUE | DUQ3 | BF Dumping Station | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DQVE | DQV | Die Hood | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DRYE | DVU | Product Conveyor | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DSBE | HDK / DVX | Product Conveyor | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |

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|---|---|---|---|---|---|---|---|---|---|
| DSLE | DSL | Dryer | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DSNE | HCK / DVV | Product Conveyor | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DSOE | DVW | Product Conveyor | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTFE | DTF | Transfer Blowers | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTGE | DTG | Transfer Blowers | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTHE | DTH | Product Silo | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTIE | DTI | Product Silo | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTJE | DTJ | Product Silo | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTKE | DTK | Product Silo | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTLE | DTL | Product Silo | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTME | DTM | Product Silo | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTNE | DTN | Product Silo | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTOE | DTO | Product Silo | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTQE | DTQ | Cutter Tank | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTRE | DTR / HCG | Cutter Tank | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTSE | DTS | Cutter Tank | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTZE | DQL | #5 Feed Bin - B | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTZE | HDD / HCZ | #5 Ribbon Blender | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTZE | HDE / DRD | #5 Screw Conveyor - NB | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTZE | HDM / DWE | Rotary Valve vent - B/NB | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTZE | HDO / HCV | Rotary Valve vent - B/NB | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTZE | HDP / HCY | #5 Conc. Feeder | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTZE | HDR / HCX | #5 Wax Blender - B | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTZE | HDS / HCU | #5 Additive Feeder - B | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTZE | HDU / DWP | #5 Mixing Conveyor | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTZE | HEI / HFB | Rotary Valve vent - B/NB | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTZE | HEJ / HFC | Rotary Valve vent - B/NB | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DTZE | HGC / HGB | #5 Hopper Vent | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DUBE | DUB | Transfer Blowers | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DUCE | DUC | Transfer Blowers | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DUKE | DUE | Packout Silo | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DUKE | DUF | Packout Silo | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DUKE | DUG | Product Blender | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DUKE | DUJ | BF Packout to Boxes | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DUKE | DUN | Product Hopper | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DUKE | DUO | #3 NWF Hopper - B | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DUKE | HCI / DUH | #3 Cube Blender | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DUKE | HDJ / DWC | #5 Product Hopper | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DUKE | HEL / HFL | #1 Product Hopper | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DUKE | HFR / HFQ | Feed Hopper | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DURE | DUR | Packout Silo | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DURE | DVB | Product Receiver | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DUWE | GCA | Storage Silo | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DUXE | GCB | Storage Silo | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DUYE | GCC | Storage Silo | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DUZE | GCD | Storage Silo | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 63.2525(j), 40 C.F.R. 63.2480(a) |
| DVAE | DVC | BF Storage Silo | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DVAE | DVD | BF Storage Silo | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DVAE | DVE | BF Storage Silo | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DVAE | DVF | BF Storage Silo | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DVAE | HET | BF Storage Silo | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DVAE | HEU | BF Storage Silo | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DVIE | DVL | Packout Silo | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DVJE | DVM | Packout Silo | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DVNE | DVN | Cooling Bin | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DWKE | DWK | Screener | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DZBE | DQU | Cube Blender | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DZBE | DWG | #6 Fines Screener | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DZBE | HCP / DWH | Fines Screener - B / NB | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DZBE | HDC / DUI | #5 Cube Blender - B | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |
| DZBE | HDQ / DWF | #5 Fines Screener | None | TAP-F | R13-2381 | No | No | Yes | 40 C.F.R. 63.2550(i), 40 C.F.R. 63.6(e)(3) excluding 40 C.F.R. 63.2525(j), 40 C.F.R. 63.2480(a) |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| GZRE | GZR | Process Plant - LDAR | None | TAP-F, VOC | | No | Yes | Yes | 40 C.F.R. 60 Subpart VV, 40 C.F.R. 63 Subpart H, Acetal MACT- 40 C.F.R. 63 Subpart UU |
| GZSE | GZS | Process Plant - LDAR | None | TAP-F, VOC | | No | Yes | Yes | 40 C.F.R. 60 Subpart VV, 40 C.F.R. 63 Subpart H, Acetal MACT- 40 C.F.R. 63 Subpart UU |
| GZTE | GZT | Process Plant - LDAR | None | TAP-F, VOC | | No | Yes | Yes | 40 C.F.R. 60 Subpart VV, 40 C.F.R. 63 Subpart H, Acetal MACT- 40 C.F.R. 63 Subpart UU |
| GZUE | GZU | Process Plant - LDAR | None | TAP-F, VOC | | No | Yes | Yes | 40 C.F.R. 60 Subpart VV, 40 C.F.R. 63 Subpart H, Acetal MACT- 40 C.F.R. 63 Subpart UU |
| GZVE | GZV | Process Plant - LDAR | None | TAP-F, VOC | | No | Yes | Yes | 40 C.F.R. 60 Subpart VV, 40 C.F.R. 63 Subpart H, Acetal MACT- 40 C.F.R. 63 Subpart UU |
| GZWE | GZW | Process Plant - LDAR | None | TAP-F, VOC | | No | Yes | Yes | 40 C.F.R. 60 Subpart VV, 40 C.F.R. 63 Subpart H, Acetal MACT- 40 C.F.R. 63 Subpart UU |
| GZXE | GZX | Process Plant - LDAR | None | TAP-F | | No | No | Yes | SOCMI HON MACT - Both are 40 C.F.R. 63 Subpart H |
| GZZE | GZZ | Maintenance Vacuum Jet | None | VOC | R13-1849 | No | Yes | No | Acetal MACT , 40C.F.R.63.1106(b) Batch Vent |
| HAME | HAM | Tank Cleaning | None | VOC | | No | Yes | Yes | SOCMI HON MACT - 40 C.F.R. 63.105 |
| HARE | HAR | Tank Cleaning | None | VOC | | No | Yes | No | Acetal MACT - 40 C.F.R. 63.1106(b) [Maintenance Wastewater] |
| HASE | HAS | Tank Cleaning | None | VOC | | No | Yes | No | Acetal MACT - 40 C.F.R. 63.1106(b) [Maintenance Wastewater] |
| HBYE | HBY | Waste Loading "B" Organic Tank | None | VOC/HAP | R13-1849 | Yes | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(b)(3), Back End Vent |
| HBZE | HBZ | Waste Loading "A" Organic Tank | None | | R13-1849 | No | No | Yes | |
| HBZE | HBZ | Comparable Fuel Loading | None | VOC/HAP | R13-1849 | Yes | Yes | No | Acetal MACT 40C.F.R.63.1103(a), Table 1-(b)(3), Back End Vent |

**Note #1 - Formaldehyde (TAP-F) does not qualify as a MACT Wastewater under any Standard.**

**Note #2 - MON MACT has a process vent definition cut-off at 50 ppm. Below this there are no controls since it is not considered to be a process vent.**
**Note #3 - The WWTP located at Washington Works does not receive any Group 1 Streams as defined by the rule. Hence the applicability of 45 C.F.R. 63.135 and 45 CSR 63.145 are very, very limited.**
**Note #4 - Sources identified as being "Removed from Service" are considered permanently removed and must undergo 45CSR13 review prior to being returned to service.**
**Note #5 - Permits are referenced by their number The revision letter has been left off but the reference is to the most current revision of the numbered permit**

## *APPENDIX A.2*

## 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 U.S. EPA); or

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

# APPENDIX B: R13-1596 APPENDICES

APPENDIX B.1 - APPENDIX A of R13-1596 (Maximum Permitted Emission Rates)

APPENDIX B.2 - CERTIFICATION OF DATA ACCURACY

# *APPENDIX B.1*

**APPENDIX A of R13-1596**
**Maximum Permitted Emission Rates**

| Emission Point | Source ID | Pollutant | Emission Limits | |
|---|---|---|---|---|
| | | | Hourly (pph) | Annual (tpy) |
| DAB-E | DABS | Methanol | 5.51 | 0.28 |
| | | Total HAP | 5.51 | 0.28 |
| | | VOC | 5.51 | 0.28 |
| DAC-E | DACS | Methanol | 5.51 | 0.28 |
| | | Total HAP | 5.51 | 0.28 |
| | | VOC | 5.51 | 0.28 |
| DAD-E | DADS | Methanol | 0.63 | 0.01 |
| | | Total HAP | 0.63 | 0.01 |
| | | VOC | 0.63 | 0.01 |
| DAG-E | DAES DAFS DAHS | Formaldehyde | 0.07 | 0.13 |
| | | Methanol | 0.03 | 0.11 |
| | | Total HAP | 0.09 | 0.23 |
| | | VOC | 0.09 | 0.23 |
| | DBOS (Tank Truck Unload) | Formaldehyde | 0.11 | 0.48 |
| | | Methanol | 0.09 | 0.39 |
| | | Total HAP | 0.20 | 0.86 |
| | | VOC | 0.20 | 0.86 |
| DAN-E | DAN DAOS | Formaldehyde | 0.01 | 0.01 |
| | | Methanol | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | VOC | 0.01 | 0.01 |
| | | $PM_{10}$ | 0.31 | 1.35 |
| DBJ-E | DAQS DARS DASS DBHS DBIS DBNS HAOS HAPS HAQS | CO | 0.93 | 4.04 |
| | | Benzene | 0.01 | 0.01 |
| | | Formaldehyde | 0.17 | 0.74 |
| | | Methanol | 0.04 | 0.14 |
| | | Toluene | 0.34 | 1.48 |
| | | Total HAP | 0.54 | 2.36 |
| | | VOC | 2.54 | 11.11 |
| DBK-E | DBKS DBPS | Biphenyl | 0.04 | 0.14 |
| | | Diphenyl Oxide | | |
| | | Total HAP | 0.04 | 0.14 |
| | | VOC | 0.04 | 0.14 |

| Emission Point | Source ID | Pollutant | Emission Limits | |
|---|---|---|---|---|
| | | | Hourly (pph) | Annual (tpy) |
| DBM-E | DBMS | CO | 0.01 | 0.03 |
| | | Formaldehyde | 0.01 | 0.01 |
| | | Methanol | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | VOC | 0.01 | 0.03 |
| DPB-E | DPBS | Formaldehyde | 0.01 | 0.01 |
| | | Methanol | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | VOC | 0.01 | 0.01 |
| DPC-E | DPCS | Formaldehyde | 0.01 | 0.01 |
| | | Methanol | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | VOC | 0.01 | 0.01 |
| D02-E | D02S | Formaldehyde | 0.26 | 0.01 |
| | | Methanol | 0.21 | 0.01 |
| | | Total HAP | 0.47 | 0.02 |
| | | VOC | 0.47 | 0.01 |
| D04-E | D04S | Formaldehyde | 0.06 | 0.01 |
| | | Methanol | - | - |
| | | Total HAP | 0.06 | 0.01 |
| | | VOC | 0.06 | 0.01 |
| D09-E | D09S | Biphenyl | 1.66 | 0.02 |
| | | Diphenyl Ether | | |
| | | Total HAP | 1.66 | 0.02 |
| | | VOC | 1.66 | 0.02 |
| D70-E | D70S | Formaldehyde | 0.80 | 0.01 |
| | | Methanol | 0.58 | 0.01 |
| | | Total HAP | 1.38 | 0.02 |
| | | VOC | 1.38 | 0.02 |
| HTA-E | HTAS | $PM_{10}$ | 0.05 | 0.19 |

## *APPENDIX B.2*

## 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 U.S. EPA); or

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

# APPENDIX C: R13-1849 APPENDICES

APPENDIX C.1 - APPENDIX A of R13-1849 (Parametric Monitoring)

APPENDIX C.2 - APPENDIX B of R13-1849 (Example Data Forms)

- ATTACHMENT A – Monthly Emissions Report
- ATTACHMENT B – Annual Emissions Report
- ATTACHMENT C – Monthly Opacity Report

APPENDIX C.3- CERTIFICATION OF DATA ACCURACY

# *APPENDIX C.1*

## APPENDIX A of R13-1849 (Parametric Monitoring)

| Equipment ID | Emission Point | Description | Monitoring Parameter | Parameter Value | Data Collection Frequency | Data Averaging Period |
|---|---|---|---|---|---|---|
| DAKC | DAKE | Tank Farm Scrubber | Scrubbing Liquid Specific Gravity | 0.9 to 1.1 | continuous record | Daily |
| | | | Scrubbing Liquid Temperature | ≤ 65°C | continuous record | Daily |
| | | | Tank Farm Liquid Flow | ≥ 1,000 pph | continuous record | 3-hour |
| DEM-OH | DOVE | Emergency Vent OH Scrubber | NA | -- | -- | -- |
| DHTC | DOXE | Vapor Condenser | Inlet River Water Temperature | ≤ 40°C | continuous record | 3-hour |
| DOMC | DOME | Comparable Fuels Boiler | Firebox Combustion Chamber Temperature | Minimum 1562 °F (850°C) | continuous record | 3-hour |
| HZZC | HZZE | Flare | Flare Pilot Flames | minimum single pilot flame Present | continuous record | NA |
| DHU | DHUE | Reactor sampling | Number of poly samples taken on this unit | NA | Determination of annual number of poly samples based on the run-time of the polys and the frequency of samples taken per work shift | Annual determination of emissions based on number of poly samples taken per year for this unit |
| DHV | DHVE | Reactor sampling | Number of poly samples taken on this unit | NA | Determination of annual number of poly samples based on the run-time of the polys and the frequency of samples taken per work shift | Annual determination of emissions based on number of poly samples taken per year for this unit |
| DHW | DHWE | Reactor sampling | Number of poly samples taken on this unit | NA | Determination of annual number of poly samples based on the run-time of the polys and the frequency of samples taken per work shift | Annual determination of emissions based on number of poly samples taken per year for this unit |
| GAD | DOXE | Reactor/FC Steamout | Number of steam-outs completed on this unit | NA | Keep record of number of steam-outs completed per year for this unit to demonstrate compliance with total operating hours. | Annual determination of emissions based on number of steam-outs completed per year. |
| GAE | DOXE | Reactor/FC Steamout | Number of steam-outs completed on this unit | NA | Keep record of number of steam-outs completed per year for this unit to demonstrate compliance with total operating hours. | Annual determination of emissions based on number of steam-outs completed per year. |

| Equipment ID | Emission Point | Description | Monitoring Parameter | Parameter Value | Data Collection Frequency | Data Averaging Period |
|---|---|---|---|---|---|---|
| GAF | DOXE | Reactor/FC Steamout | Number of steam-outs completed on this unit | NA | Keep record of number of steam-outs completed per year for this unit to demonstrate compliance with total operating hours. | Annual determination of emissions based on number of steam-outs completed per year. |
| GBT | DOME | CFB Liquid $SO_2$ | % Sulfur in fuel | 0.05% by weight | Per Section 4.2.4 | |
| DMH | DOME/HZZE | Acetic Anhydride Tank Vent Scrubber | Scrubbing Tails Flow | ≥ 400 pph | continuous record | 3-hour |
| | | | Scrubbing Tails Specific Gravity | 0.9 to 1.1 | continuous record | 3-hour |
| | | | Scrubbing Tails Temperature | ≤ 50°C | continuous record | 3-hour |
| DOC | DOME/HZZE | VRS Water Scrubber | Recirculation Liquid Flow | ≥ 15,000 pph | continuous record | 3-hour |
| | | | Make-up Liquid Flow | ≥ 300 pph | continuous record | 3-hour |
| | | | Scrubber ΔP | 0 to 28 inches $H_2O$ | continuous record | 3-hour |
| DOA | DOME/HZZE | VRS Oil Scrubber Column | Oil Scrubber Spray Flow | ≥ 5,000 pph | continuous record | 3-hour |
| DEM-OH | DEME | Emergency Wet Scrubber | Scrubber Liquid Flow | <50 gpm | Continuous record when the unit is in operation. | 1-hour |
| DIN~~C~~ | DINE | Brine Tank | Brine Liquid Temperature | ≤ 10°C | continuous record during operation of Acetal process | Daily |
| | | | Time Brine Tank is operated > 10°C but < 15°C | Max of 100 hours per rolling 12-month period | continuous record | 12-month |
| DMLC | DMLE | Acetic Anhydride Refiner Vent Condenser | Condenser Condensate Temperature | ≤ 18°C | continuous record | daily |
| DMX | DOME/HZZE | IRS Solvent Condenser | Condenser Condensate Temperature | ≤ 55°C | continuous record | 3-hour |
| DNAC | DOME/HZZE | IRS Water Scrubber | Recirculation Liquid Flow | ≥ 20,000 pph | continuous record | 3-hour |
| | | | Make-up Liquid Flow | ≥ 0 pph | continuous record | 3-hour |
| DCL | DCYE | Solvent Column (DCL) Product Condenser | Condenser Condensate Temperature | ≤ 55°C | continuous record | 3-hour |
| DCM | DCYE | Silica Gel Bed Regeneration Condenser | Condenser Condensate Temperature | ≤ 38°C | continuous record | 3-hour |
| DERC | DOME/HZZE | Dehydrator Fume Condenser | Condenser Condensate Temperature | ≤ 55°C | continuous record | 3-hour |
| DGX | DOME/HZZE | Monomer Absorber | Scrubber Liquid Flow | ≥ 66,000 pph | continuous record | 3-hour or period of operation when used for shorter period |

| Equipment ID | Emission Point | Description | Monitoring Parameter | Parameter Value | Data Collection Frequency | Data Averaging Period |
|---|---|---|---|---|---|---|
| DMY | DOME/HZZE | IRS Divert | Time IRS is Diverted | Maximum of 1,000 hours per rolling 12-month period | The time the IRS is diverted directly to the DOM/HZZ units is monitored using a continuous tracking system | 12-month |
| DOD | DOME/HZZE | VRS Divert | Time Entire VRS is Diverted | maximum of 840 hours per rolling 12-month period | The time the entire VRS is diverted directly to the DOM/HZZ units is monitored using a continuous tracking system | 12-month |
| DOC | DOME/HZZE | VRS Divert after Water Scrubber | Time VRS is Diverted after Water Scrubber | maximum of 480 hours per rolling 12-month period | The time the VRS is diverted after the water scrubber directly to the DOM/HZZ units is monitored using a continuous tracking system | 12-month |
| D11 | D11E | Solvent Column Decanter U/L Tank RV Change Out | Days RV Out of Service | maximum 5 days | The tank level will be monitored while the RV is out of service | As required in Section 4.4.12 |
| D12 | D12E | Solvent Column Decanter Tank Change Out | Days RV Out of Service | maximum 5 days | The tank level will be monitored while the RV is out of service | As required in Section 4.4.12 |
| D14 | D14E | Recycle Solvent Storage Tank RV Change Out | Days RV Out of Service | maximum 5 days | The tank level will be monitored while the RV is out of service | As required in Section 4.4.12 |
| D15 | D15E | Solvent Storage Tank RV Change Out | Days RV Out of Service | maximum 5 days | The tank level will be monitored while the RV is out of service | As required in Section 4.4.12 |
| D16 | D16E | Silica Gel Bed A RV Change Out | Days RV Out of Service | maximum 5 days | The tank level will be monitored while the RV is out of service | As required in Section 4.4.12 |
| D17 | D17E | Silica Gel Bed B RV Change Out | Days RV Out of Service | maximum 5 days | The tank level will be monitored while the RV is out of service | As required in Section 4.4.12 |
| D18 | D18E | Silica Gel Bed C RV Change Out | Days RV Out of Service | maximum 5 days | The tank level will be monitored while the RV is out of service | As required in Section 4.4.12 |

| Equipment ID | Emission Point | Description | Monitoring Parameter | Parameter Value | Data Collection Frequency | Data Averaging Period |
|---|---|---|---|---|---|---|
| D20 | D20E | Solvent Column Decanter Tank RV Change Out | Days RV Out of Service | maximum 5 days | The tank level will be monitored while the RV is out of service | As required in Section 4.4.12 |
| D21 | D21E | Solvent Column Upper Layer Tank RV Change Out | Days RV Out of Service | maximum 5 days | The tank level will be monitored while the RV is out of service | As required in Section 4.4.12 |
| D27 | D27E | Lower Boiler Column Distillate Receiver RV Change Out | Days RV Out of Service | maximum 5 days | The tank level will be monitored while the RV is out of service | As required in Section 4.4.12 |
| D35 | D35E | #1 Slurry Feed Tank RV Change Out | Days RV Out of Service | maximum 5 days | The tank level will be monitored while the RV is out of service | As required in Section 4.4.12 |
| D37 | D37E | #1 Centrifuge RV Change Out | Days RV Out of Service | maximum 5 days | The tank level will be monitored while the RV is out of service | As required in Section 4.4.12 |
| D39 | D39E | #1 Centrifuge Centrate Receiver Tank RV Change Out | Days RV Out of Service | maximum 5 days | The tank level will be monitored while the RV is out of service | As required in Section 4.4.12 |
| D40 | D40E | #2 Centrifuge Centrate Receiver Tank RV Change Out | Days RV Out of Service | maximum 5 days | The tank level will be monitored while the RV is out of service | As required in Section 4.4.12 |
| D44 | D44E | #1 Dryer Decanter Tank Upper Layer RV Change Out | Days RV Out of Service | maximum 5 days | The tank level will be monitored while the RV is out of service | As required in Section 4.4.12 |
| D46 | D46E | #2 Dryer Decanter Tank Upper Layer RV Change Out | Days RV Out of Service | maximum 5 days | The tank level will be monitored while the RV is out of service | As required in Section 4.4.12 |
| D52 | D52E | Steam Stripper Distillate Decanter RV Change Out | Days RV Out of Service | maximum 5 days | The tank level will be monitored while the RV is out of service | As required in Section 4.4.12 |
| D57 | D57E | “A” Raw Polymer Silo RV Change Out | Days RV Out of Service | maximum 5 days | The tank level will be monitored while the RV is out of service | As required in Section 4.4.12 |
| D59 | D59E | “C” Raw Polymer Silo RV Change Out | Days RV Out of Service | maximum 5 days | The tank level will be monitored while the RV is out of service | As required in Section 4.4.12 |
| D63 | D63E | #2 Centrifuge RV Change Out | Days RV Out of Service | maximum 5 days | The tank level will be monitored while the RV is out of service | As required in Section 4.4.12 |

| Equipment ID | Emission Point | Description | Monitoring Parameter | Parameter Value | Data Collection Frequency | Data Averaging Period |
|---|---|---|---|---|---|---|
| D65 | D65E | #1 Capper RV Change Out | Days RV Out of Service | maximum 5 days | The tank level will be monitored while the RV is out of service | As required in Section 4.4.12 |
| D66 | D66E | #2 Capper RV Change Out | Days RV Out of Service | maximum 5 days | The tank level will be monitored while the RV is out of service | As required in Section 4.4.12 |
| D69 | D69E | Catalyst Mix Tank RV Change Out | Days RV Out of Service | maximum 5 days | The tank level will be monitored while the RV is out of service | As required in Section 4.4.12 |

* The control device requirements apply when the listed emission group(s) are operating and venting to the control device.

# *APPENDIX C.2*

## APPENDIX B of R13-1849 (Example Data Forms)
## ATTACHMENT A – Monthly Emissions Report

E. I. du Pont de Nemours and Company; Washington Works
Plant ID No. 107-00001; Permit No. R13-1849

### Storage Tanks

| Emission Point ID | Equipment ID | Control Device ID | VOC | | $CH_2O$ | | Hexane | | Methanol | | Toluene | | THAP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | pph* | ppy[2] | pph* | ppy[2] | pph* | ppy[2] | pph* | ppy[2] | pph* | ppy[2] | pph* | ppy[2] |
| | | | | | | | | | | | | | | |
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### Process Equipment – VOC & HAP

| Emission Point ID | Equipment ID | Control Device ID | VOC | | $CH_2O$ | | Hexane | | Methanol | | Toluene | | THAP | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | pph* | ppy[2] | pph* | ppy[2] | pph* | ppy[2] | pph* | ppy[2] | pph* | ppy[2] | pph* | ppy[2] |
| | | | | | | | | | | | | | | |
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### Process Equipment – $PM_{10}$

| Emission Point ID | Equipment ID | Control Device ID | $PM_{10}$ | |
|---|---|---|---|---|
| | | | pph* | ppy[2] |
| | | | | |
| | | | | |
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* Maximum Recorded Value.
(1) This record shall be maintained per Section 4.4.5.
(2) Rolling 12 month totals from TANKS 4.0 (or later version) program
(3) Sources with optional emission cases will only vent from one at a time.

## ATTACHMENT B – Annual Emissions Report

E. I. du Pont de Nemours and Company; Washington Works
Plant ID No. 107-00001; Permit No. R13-1849
Current Year: _____

### Formaldehyde ($CH_2O$) Emissions (lb)

| Emission Point ID | Equipment ID | | | | | | | | | | | | | 12 Month Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| **Total** | | | | | | | | | | | | | | |

### Hexane Emissions (lb)

| Emission Point ID | Equipment ID | | | | | | | | | | | | | 12 Month Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | |
| **Total** | | | | | | | | | | | | | | |

### Methanol (MeOH) Emissions (lb)

| Emission Point ID | Equipment ID | | | | | | | | | | | | | 12 Month Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| **Total** | | | | | | | | | | | | | | |

### Toluene Emissions (lb)

| Emission Point ID | Equipment ID | | | | | | | | | | | | | 12 Month Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| **Total** | | | | | | | | | | | | | | |

### Total Hazardous Air Pollutants (THAP) Emissions (lb)

| Emission Point ID | Equipment ID | | | | | | | | | | | | | 12 Month Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| **Total** | | | | | | | | | | | | | | |

### VOC Emissions (lb)

| Emission Point ID | Equipment ID | | | | | | | | | | | | | 12 Month Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| **Total** | | | | | | | | | | | | | | |

### $PM_{10}$ Emissions (lb)

| Emission Point ID | Equipment ID | | | | | | | | | | | | | 12 Month Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| **Total** | | | | | | | | | | | | | | |

(1) This record shall be maintained per Section 4.4.5.
(2) Sources with optional emission cases will only vent from one at a time.

## ATTACHMENT C – Monthly Opacity Report

E. I. du Pont de Nemours and Company; Washington Works
Plant ID No. 107-00001; Permit No. R13-1849

Current Month and Year: _____
Data Entered By: _____
Date Entered: _____
Reviewed By: _____
Date Reviewed: _____

| Stack/Vent ID | Stack/Vent Description | Date of Observation | Time of Observation | Name of Observer | Visible Plume? Yes/No | Near 20% Opacity? Yes/No | Method 9 Compliance Status? | Comments |
|---|---|---|---|---|---|---|---|---|
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| Opacity Observers – Method 22 Training | Latest Certification Date | Certification Expiration Date | Current Date | Certification Current? |
|---|---|---|---|---|
| Observer Name | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

(1) This record shall be maintained per Section 4.4.5.

# *APPENDIX C.3*

## CERTIFICATION OF DATA ACCURACY

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

Signature[1] _____ _____
(please use blue ink) Responsible Official or Authorized Representative Date

Name & 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 U.S. EPA); or

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

# APPENDIX D: R13-2381 APPENDICES

APPENDIX D.1 - APPENDIX A of R13-2381 (Bagfilter Performance and Compliance Monitoring)

APPENDIX D.2 - APPENDIX B of R13-2381 (Maximum Permitted Emission Rates)

APPENDIX D.3 - CERTIFICATION OF DATA ACCURACY

# *APPENDIX D.1*

**APPENDIX A of R13-2381**
**Bagfilter Performance and Compliance Monitoring**

| Control Device ID | Emission Point ID | Uncontrolled PM Emissions (lb/hr) | Control Efficiency (%) | Controlled PM Emissions (lb/hr) | Compliance Monitoring | | |
|---|---|---|---|---|---|---|---|
| | | | | | Activity | Parameter and/or Limit | Frequency |
| DQC-C | DQC-E | 0.01 | 99.9 | 0.01 | Opacity | 20% | Monthly |
| DQG-C | DQG-E | 0.01 | 99.9 | 0.01 | Opacity | 20% | Monthly |
| DUK-C | DUK-E | 3.76 | 99.9 | 0.04 | Opacity | 20% | Monthly |
| DTZ-C | DTZ-E | 0.02 | 99.95 | 0.01 | Opacity | 20% | Monthly |
| HDW-C | HDW-E | 0.01 | 99.9 | 0.01 | Opacity | 20% | Monthly |
| HEF-C | HEG-E | 0.01 | 99.9 | 0.01 | Opacity | 20% | Monthly |
| HFZ-P | HFZ-E | 0.01 | 99.9 | 0.01 | Opacity | 20% | Monthly |
| DWD-P | DZG-E | 20.07 | 99.9 | 0.08 | Pressure Drop | 0-7 inches of $H_2O$ | Daily Average |
| HEW-P | DZG-E | 20.07 | 99.9 | 0.08 | Pressure Drop | 0-5 inches of $H_2O$ | Daily Average |
| HED-P | DZG-E | 20.07 | 99.9 | 0.08 | Pressure Drop | 0-5 inches of $H_2O$ | Daily Average |
| HER-P | DZG-E | 20.07 | 99.9 | 0.08 | Pressure Drop | 0-25 inches of $H_2O$ | Daily Average |
| HFO-P | HFP-E | 18.56 | 99.9 | 0.02 | Pressure Drop | 0-15 inches of $H_2O$ | Daily Average |
| DST-C | DST-E | 0.01 | 99.9 | 0.01 | Opacity | 20% | Monthly |
| DSX-P | DSZ-E | 4.16 | 99.9 | 0.01 | Opacity | 20% | Monthly |
| DQE-P | DQE-E | 4.06 | 99.9 | 0.01 | Opacity | 20% | Monthly |
| DUR-C | DUR-E | 0.03 | 99.0 | 0.01 | Opacity | 20% | Monthly |
| HEO-C | HEO-E | 0.01 | 99.9 | 0.01 | Opacity | 20% | Monthly |
| HET-C | HET-E | 0.01 | 99.9 | 0.01 | Opacity | 20% | Monthly |
| HES-C | HES-E | 0.01 | 99.9 | 0.01 | Opacity | 20% | Monthly |
| DUZ-C | DUZ-E | 0.01 | 99.9 | 0.01 | Opacity | 20% | Monthly |
| DUY-C | DUY-E | 0.01 | 99.9 | 0.01 | Opacity | 20% | Monthly |
| DUX-C | DUX-E | 0.01 | 99.9 | 0.01 | Opacity | 20% | Monthly |
| DUW-C | DUW-E | 0.01 | 99.9 | 0.01 | Opacity | 20% | Monthly |
| DVI-C | DVI-E | 0.03 | 99.9 | 0.01 | Opacity | 20% | Monthly |
| DVJ-C | DVJ-E | 0.03 | 99.9 | 0.01 | Opacity | 20% | Monthly |
| DVA-C | DVA-E | 0.01 | 99.9 | 0.01 | Opacity | 20% | Monthly |
| DUQ-C | DUQ-E | 2.47 | 99.95 | 0.01 | Opacity | 20% | Monthly |
| DZB-C | DZB-E | 0.01 | 99.9 | 0.01 | Opacity | 20% | Monthly |

# *APPENDIX D.2*

**APPENDIX B of R13-2381**
**Maximum Permitted Emission Rates**

| Emission Point | Control Device | Pollutant | Permitted Emissions | |
|---|---|---|---|---|
| | | | Hourly (lb/hr) | Annual (ton/yr) |
| DLAB-E | None | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| | | Styrene | 0.01 | 0.01 |
| DPD-E | None | VOC | 0.04 | 0.14 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| DQC-E<br>DQG-E | DQC-C<br>DQG-C | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.13 | 0.58 |
| | | Total HAP | 0.09 | 0.37 |
| | | Formaldehyde | 0.09 | 0.36 |
| | | Methanol | 0.01 | 0.01 |
| DQE-E | DQE-P | $PM_{10}$ | 0.01 | 0.02 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| | | Methanol | 0.01 | 0.01 |
| DQM-E | None | $PM_{10}$ | 0.04 | 0.14 |
| | | VOC | 0.07 | 0.29 |
| | | Total HAP | 0.01 | 0.04 |
| | | Formaldehyde | 0.01 | 0.04 |
| | | Methanol | 0.01 | 0.01 |
| | | Styrene | 0.01 | 0.01 |
| DQN-E | None | $PM_{10}$ | 0.01 | 0.04 |
| | | VOC | 0.01 | 0.03 |
| | | Total HAP | 0.01 | 0.03 |
| | | Formaldehyde | 0.01 | 0.02 |
| | | Methanol | 0.01 | 0.01 |
| | | Styrene | 0.01 | 0.01 |
| DQO-E | None | $PM_{10}$ | 0.01 | 0.03 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| DQR-E | None | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| DQV-E | None | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| DQY-E | None | $PM_{10}$ | 0.04 | 0.15 |
| DRA-E | None | $PM_{10}$ | 0.01 | 0.03 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |

| Emission Point | Control Device | Pollutant | Permitted Emissions | |
|---|---|---|---|---|
| | | | Hourly (lb/hr) | Annual (ton/yr) |
| DRY-E | DRY-P | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.04 | 0.14 |
| HCL-E | HCL-P | Total HAP | 0.04 | 0.14 |
| | | Formaldehyde | 0.04 | 0.14 |
| DSB-E | DSB-P | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.04 | 0.16 |
| | | Total HAP | 0.04 | 0.15 |
| | | Formaldehyde | 0.04 | 0.14 |
| | | Styrene | 0.01 | 0.01 |
| DSN-E | DSN-P | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| DSO-E | DSO-P | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.03 | 0.11 |
| | | Total HAP | 0.03 | 0.11 |
| | | Formaldehyde | 0.03 | 0.11 |
| DST-E | DST-C | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.08 | 0.33 |
| | | Total HAP | 0.08 | 0.33 |
| | | Formaldehyde | 0.08 | 0.33 |
| DSZ-E | DSZ-C | $PM_{10}$ | 0.01 | 0.02 |
| DTF-E | None | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| DTG-E | None | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| DTH-E | None | $PM_{10}$ | 0.02 | 0.08 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| | | Methanol | 0.01 | 0.01 |
| DTI-E | None | $PM_{10}$ | 0.02 | 0.08 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| | | Methanol | 0.01 | 0.01 |
| DTJ-E | None | $PM_{10}$ | 0.02 | 0.08 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| | | Methanol | 0.01 | 0.01 |
| DTK-E | None | $PM_{10}$ | 0.02 | 0.08 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |

| Emission Point | Control Device | Pollutant | Permitted Emissions | |
|---|---|---|---|---|
| | | | Hourly (lb/hr) | Annual (ton/yr) |
| | | Formaldehyde | 0.01 | 0.01 |
| | | Methanol | 0.01 | 0.01 |
| DTL-E | None | $PM_{10}$ | 0.02 | 0.08 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| | | Methanol | 0.01 | 0.01 |
| DTM-E | None | $PM_{10}$ | 0.02 | 0.08 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| | | Methanol | 0.01 | 0.01 |
| DTN-E | None | $PM_{10}$ | 0.02 | 0.08 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| | | Methanol | 0.01 | 0.01 |
| DTO-E | None | $PM_{10}$ | 0.02 | 0.08 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| | | Methanol | 0.01 | 0.01 |
| DTQ-E | None | VOC | 0.01 | 0.01 |
| DTR-E | None | VOC | 0.01 | 0.01 |
| DTS-E | None | VOC | 0.01 | 0.01 |
| DTT-E | None | VOC | 0.01 | 0.01 |
| DTZ-E | DTZ-C | $PM_{10}$ | 0.02 | 0.02 |
| | | VOC | 0.09 | 0.32 |
| | | Total HAP | 0.02 | 0.07 |
| | | Formaldehyde | 0.02 | 0.07 |
| | | Styrene | 0.01 | 0.01 |
| | | Methanol | 0.01 | 0.01 |
| DUB-E | None | $PM_{10}$ | 0.08 | 0.01 |
| | | VOC | 0.38 | 0.01 |
| | | Total HAP | 0.17 | 0.01 |
| | | Formaldehyde | 0.17 | 0.01 |
| DUC-E | None | $PM_{10}$ | 0.08 | 0.01 |
| | | VOC | 0.37 | 0.01 |
| | | Total HAP | 0.17 | 0.01 |
| | | Formaldehyde | 0.17 | 0.01 |
| DUD-E | None | $PM_{10}$ | 0.08 | 0.01 |
| | | VOC | 0.38 | 0.01 |
| | | Total HAP | 0.17 | 0.01 |
| | | Formaldehyde | 0.17 | 0.01 |

| Emission Point | Control Device | Pollutant | Permitted Emissions | |
|---|---|---|---|---|
| | | | Hourly (lb/hr) | Annual (ton/yr) |
| DUK-E | DUK-C | $PM_{10}$ | 0.01 | 0.03 |
| | | VOC | 0.79 | 2.36 |
| | | Total HAP | 0.60 | 1.56 |
| | | Formaldehyde | 0.57 | 1.41 |
| | | Methanol | 0.01 | 0.01 |
| | | Styrene | 0.34 | 0.15 |
| DUQ-E | DUQ-C | $PM_{10}$ | 0.01 | 0.02 |
| | | VOC | 0.79 | 0.01 |
| | | Total HAP | 0.60 | 0.01 |
| | | Formaldehyde | 0.57 | 0.01 |
| DUR-E | DUR-C | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.02 | 0.09 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| DUW-E | DUW-C | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| DUX-E | DUX-C | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| DUY-E | DUY-C | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| DUZ-E | DUZ-C | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| DVA-E | DVA-C | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| DVI-E | DVI-C | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| DVJ-E | DVJ-C | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| DVN-E | None | $PM_{10}$ | 0.04 | 0.14 |
| | | VOC | 0.07 | 0.29 |
| | | Total HAP | 0.01 | 0.04 |
| | | Formaldehyde | 0.01 | 0.04 |
| | | Methanol | 0.01 | 0.01 |

| Emission Point | Control Device | Pollutant | Permitted Emissions | |
|---|---|---|---|---|
| | | | Hourly (lb/hr) | Annual (ton/yr) |
| DWA-E | DWA-P | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| DWK-E | None | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.02 | 0.09 |
| | | Total HAP | 0.02 | 0.09 |
| | | Formaldehyde | 0.02 | 0.09 |
| DWU-E | None | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.04 | 0.15 |
| | | Total HAP | 0.04 | 0.15 |
| | | Formaldehyde | 0.04 | 0.14 |
| | | Methanol | 0.01 | 0.01 |
| DWV-E | None | $PM_{10}$ | 0.01 | 0.03 |
| | | VOC | 0.04 | 0.15 |
| | | Total HAP | 0.04 | 0.15 |
| | | Formaldehyde | 0.03 | 0.14 |
| | | Methanol | 0.01 | 0.01 |
| DWW-E | None | $PM_{10}$ | 0.01 | 0.02 |
| | | VOC | 0.02 | 0.10 |
| | | Total HAP | 0.02 | 0.10 |
| | | Formaldehyde | 0.02 | 0.07 |
| | | Methanol | 0.01 | 0.03 |
| DWX-E | None | $PM_{10}$ | 0.04 | 0.16 |
| | | VOC | 0.03 | 0.10 |
| | | Total HAP | 0.03 | 0.10 |
| | | Formaldehyde | 0.02 | 0.10 |
| | | Methanol | 0.01 | 0.01 |
| | | Styrene | 0.01 | 0.01 |
| DZB-E | DZB-C | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.12 | 0.51 |
| | | Total HAP | 0.08 | 0.33 |
| | | Formaldehyde | 0.08 | 0.33 |
| DZD-E | None | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| DZG-E | HER-P<br>HED-P<br>DWD-P<br>HEW-P | $PM_{10}$ | 0.08 | 0.34 |
| HCA-E | None | $PM_{10}$ | 0.04 | 0.14 |
| | | VOC | 0.07 | 0.28 |
| | | Total HAP | 0.01 | 0.04 |
| | | Formaldehyde | 0.01 | 0.04 |
| | | Methanol | 0.01 | 0.01 |

| Emission Point | Control Device | Pollutant | Permitted Emissions | |
|---|---|---|---|---|
| | | | Hourly (lb/hr) | Annual (ton/yr) |
| HDW-E | HDW-C | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| | | Styrene | 0.01 | 0.01 |
| HDY-E | None | $PM_{10}$ | 0.01 | 0.03 |
| | | VOC | 0.04 | 0.14 |
| | | Total HAP | 0.03 | 0.12 |
| | | Formaldehyde | 0.02 | 0.09 |
| | | Methanol | 0.01 | 0.02 |
| | | Styrene | 0.01 | 0.02 |
| HDZ-E | None | VOC | 0.01 | 0.01 |
| HEE-E | HEE-P | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.04 | 0.15 |
| | | Total HAP | 0.04 | 0.14 |
| | | Formaldehyde | 0.03 | 0.14 |
| | | Styrene | 0.01 | 0.01 |
| HEG-E | HEF-C | $PM_{10}$ | 0.01 | 0.03 |
| | | VOC | 0.12 | 0.53 |
| | | Total HAP | 0.08 | 0.32 |
| | | Formaldehyde | 0.06 | 0.25 |
| | | Styrene | 0.02 | 0.08 |
| HEO-E | HEO-C | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.10 | 0.41 |
| | | Total HAP | 0.08 | 0.32 |
| | | Formaldehyde | 0.06 | 0.25 |
| | | Styrene | 0.02 | 0.08 |
| HEQ-E | None | $PM_{10}$ | 0.47 | 2.03 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| | | Methanol | 0.01 | 0.01 |
| HES-E | HES-C | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| HET-E | HET-C | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| HFP-E | HFO-P | $PM_{10}$ | 0.02 | 0.09 |
| HFV-E | None | VOC | 0.01 | 0.01 |
| | | Total HAP | 0.01 | 0.01 |
| | | Formaldehyde | 0.01 | 0.01 |
| | | Styrene | 0.01 | 0.01 |
| HFZ-E | HFZP | $PM_{10}$ | 0.04 | 0.15 |

| Emission Point | Control Device | Pollutant | Permitted Emissions | |
|---|---|---|---|---|
| | | | Hourly (lb/hr) | Annual (ton/yr) |
| HGW-E | None | $PM_{10}$ | 0.01 | 0.01 |
| | | VOC | 0.01 | 0.06 |
| | | Total HAP | 0.01 | 0.05 |
| | | Formaldehyde | 0.01 | 0.05 |
| | | Styrene | 0.01 | 0.01 |

## *APPENDIX D.3*

## 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 U.S. EPA); or

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