West Virginia Department of Environmental Protection

Earl Ray Tomblin
Governor

Division of Air Quality

Randy C. Huffman
Cabinet Secretary

Modification Permit

DRAFT R13-1849J

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§22-5-1 et seq.) and 45 C.S.R. 13 – Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the above-referenced facility is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:

E. I. du Pont de Nemours and Company
Washington Works
107-00001

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John A. Benedict
Director

Issued: DRAFT • Effective: DRAFT

This permit will supersede and replace Permit R13-1849I.

Facility Location:	Washington, Wood County, West Virginia
Mailing Address:	P.O. Box 1217, Washington, WV 26181-1217
Facility Description:	Acetal Resin Manufacturing Unit
SIC Codes:	2819: Chemicals and Allied Products – Industrial Inorganic Chemicals 2821: Chemicals and Allied Products – Plastics Materials and Resins 2824: Chemicals and Allied Products – Organic Fibers, Noncellulosic
UTM Coordinates:	442.310 km Easting • 4,346.800 km Northing • Zone 17
Permit Type:	Modification
Description of Change:	Re-routing of the discharge emissions from the maintenance preparation jets associated with the polymer capping units within the Acetal Resin Unit.

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.

The source is subject to 45 C.S.R. 30. The permittee has the duty to update the facility's Title V (45 C.S.R. 30) permit application to reflect the changes permitted herein.

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1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Control Device
DAL	DOME/HZZE	"E" Formaldehyde Tank	DOMC/HZZC
DDO	DAKE	Recycle Tank	DAKC
DEA	DAKE	Hold Up Tank	DAKC
DEB	DOME/HZZE	Feed Tank	DOMC/HZZC
DEC	DAKE	Storage Tank	DAKC
DFE	DOME/HZZE	Reactor Column/Extraction Column	DOMC/HZZC
HAN	DOUE	Tank Clean-Out	DAKC
DCA	DOME/HZZE	Decanter Tank	DOMC/HZZC
DCB	DCBE	Recycle Filter	NA
DCC	DCCE	Recycle Filter	NA
DCD	DCDE	Recycle Filter	NA
DCF	DOME/HZZE	Recycle Solvent Tank	DOMC/HZZC
HAR	DCFE	Recycle Tank Clean-Out	NA
DCG	DOME/HZZE	Storage Tank	DOMC/HZZC
HAS	DOUE	Solvent Storage Tank Clean-Out & Purge	DOUC
DCO	DCOE	South Solvent Tails Filter	NA
DCP	DCPE	North Solvent Tails Filter	NA
DCR	DCRE	Solvent Feed Filter (North)	NA
DCS	DCSE	Solvent Feed Filter (South)	NA
DCH	DCYE	A Gel Bed Regeneration	DCMC
DCI	DCYE	B Gel Bed Regeneration	DCMC
DCJ	DCYE	C Gel Bed Regeneration	DCMC
DCL	DCYE	Solvent Column	NA
DCV	DCYE	Gel Bed Regeneration Condenser	NA
DDF	DCYE	Column Decanter Tank	NA
DDG	DCYE	Column U/L Tank	NA
HAT	DCYE	Column Clean-Out and Purge	NA
DDE	DDEE	Gel Regeneration Recovery Tank	NA
DFH	DDEE	Column H_2O Analyzer	NA
DDP	DDPE	Storage Tank	NA
DDW	DOME/HZZE	LBR Column Feed Tank	DOMC/HZZC
DES	DESE	Feed Tank	NA

Emission Unit ID	Emission Point ID	Emission Unit Description	Control Device
DFI	DFIE	Weak CH_2O TT Loading	NA
HAV	DFIE	TT Loading from Recycle Tank	NA
HAW	DFIE	TT Loading from Recycle Tank	NA
HAX	DFIE	TT Loading from Storage Tank	NA
HAY	DFIE	TT Loading from Storage Tank	NA
HAZ	DFIE	TT Loading from Recycle Tank	NA
DHU	DHUE	Reactor Sampling	NA
DHV	DHVE	Reactor Sampling	NA
DHW	DHWE	Reactor Sampling	NA
DHY	DHYE	Catalyst Storage Tank	NA
DHX	DHZE	Catalyst Hold-Up Tank	NA
DHZ	DHZE	Catalyst Mix Tank	NA
HBC	DIEE	Isolation Change-Out Vent	NA
HBL	DIEE	Isolation Change-Out Vent	NA
DIN	DINE	Brine Tank	DINC
DIR	DIRE	Brine Tank	NA
DIS	DISE	Brine Tank	NA
DJX	DJXE	Brine TT Loading	NA
DJY	DJYE	Brine TT Loading	NA
DJZ	DJZE	Brine TT Loading	NA
DLX	DLXE	Sparger Lump Pot	NA
DMH	DOME/HZZE	Recycle AA Storage Tank	DOMC/HZZC
DMI	DMIE	Refined AA Tank	NA
DML	DMLE	AR Column	DMLC
DMU	DMUE	Vaporizer Boilout	NA
DMV	DMVE	Vaporizer Boilout	NA
DNC	DNCE	Sparger Lump Pot	NA
DOH	DOHE	Oil Storage Tank	NA
DOM	DOME	CFB Liquid – VOCs	DOMC
GBQ	DOME	CFB Liquids – Particulate	DOMC
GBR	DOME	CFB Liquid – CO	DOMC
GBS	DOME	CFB Liquid – NO_X	DOMC
GBT	DOME	CFB Liquid – SO_2	DOMC

Emission Unit ID	Emission Point ID	Emission Unit Description	Control Device
GBU	DOME/HZZE	Column	DOMC/HZZC
DDJ	DOME/HZZE	Purge Tank	DOMC/HZZC
DDL	DOME/HZZE	HBR Column Vent	DOMC/HZZC
DDS	DOME/HZZE	NLBR Column	DOMC/HZZC
DDZ	DOME/HZZE	NLBR Column Distillate Receiver	DOMC/HZZC
DEP	DOME/HZZE	LPD Vent	DOMC/HZZC
DEU	DOME/HZZE	HPD Vent	DOMC/HZZC
DEW	DOME/HZZE	Column	DOMC/HZZC
DEZ	DOME/HZZE	Hold Up Tank	DOMC/HZZC
DFA	DOME/HZZE	Distillate Receiver	DOMC/HZZC
DFB	DOME/HZZE	Neutral Concentrator Feed Tank	DOMC/HZZC
DGQ	DOME/HZZE	#1 P/PC System	DOMC/HZZC
DGR	DOME/HZZE	#2 P/PC System	DOMC/HZZC
DGS	DOME/HZZE	#3 P/PC System	DOMC/HZZC
DGV	DOME/HZZE	PC Steamout Condenser	DOMC/HZZC
DGX	DOME/HZZE	Monomer Absorber	DOMC/HZZC
DHS	DOME/HZZE	Poly. Steamout Decanter Tank	DOMC/HZZC
DIC	DOME/HZZE	Slurry Feed Tank	DOMC/HZZC
DIE	DOME/HZZE	Isolation Vent	DOMC/HZZC
DIF	DOME/HZZE	Isolation Liquid Receiver Tank	DOMC/HZZC
DJO	DOME/HZZE	D/D U/L Tank	DOMC/HZZC
DJP	DOME/HZZE	D/D L/L Tank	DOMC/HZZC
DJQ	DOME/HZZE	D/D U/L Tank	DOMC/HZZC
DJR	DOME/HZZE	D/D L/L Tank	DOMC/HZZC
DJT	DOME/HZZE	Dryer Blower Loop	DOMC/HZZC
DJU	DOME/HZZE	Dryer Blower Loop	DOMC/HZZC
DJV	DOME/HZZE	Conveyor Blower	DOMC/HZZC
DJW	DOME/HZZE	Conveyor Blower	DOMC/HZZC
DLM	DOME/HZZE	Sparger	DOMC/HZZC
DLR	DOME/HZZE	Sparger	DOMC/HZZC
DMM	DOME/HZZE	Distillation Column	DOMC/HZZC
DMQ	DOME/HZZE	Polymer Conveyor Vent	DOMC/HZZC
DMR	DOME/HZZE	Polymer Conveyor Vent	DOMC/HZZC

Emission Unit ID	Emission Point ID	Emission Unit Description	Control Device
DMX	DOME/HZZE	IRS Tank Vent	DOMC/HZZC
DMY	DOME/HZZE	IRS Divert	DOMC/HZZC
DOC	DOME/HZZE	VRS – Oil Scrubber Bypass	DOMC/HZZC
DOD	DOME/HZZE	VRS Hi-Delta P (VRS Bypass)	DOMC/HZZC
DOG	DOME/HZZE	Stripper Decanter	DOMC/HZZC
DON	DOME/HZZE	"B" Organic Waste Feed Tank	DOMC/HZZC
DOO	DOME/HZZE	"A" Organic Waste Feed Tank	DOMC/HZZC
DOP	DOME/HZZE	"A" Aqueous Waste Water Tank	DOMC/HZZC
DOQ	DOME/HZZE	Aqueous Waste Water Decanter	DOMC/HZZC
DOX	DOME/HZZE	Polymerization Bldg. East Sump	DOMC/HZZC
DPH	DOME/HZZE	Capper	DOMC/HZZC
DPL	DOME/HZZE	Capper	DOMC/HZZC
DPM	DOME/HZZE	TEHOF Reactor	DOMC/HZZC
DPP	DOME/HZZE	TEHOF Reactor Decanter	DOMC/HZZC
GAA	DOME/HZZE	Reactor/FC	DOMC/HZZC
GAB	DOME/HZZE	Reactor/FC	DOMC/HZZC
GAC	DOME/HZZE	Reactor/FC	DOMC/HZZC
GAN	DOME/HZZE	Intermediate Polymer Silo-Solvent	DOMC/HZZC
GAO	DOME/HZZE	Intermediate Polymer Silo CH_2O	DOMC/HZZC
GAZ	DOME/HZZE	Intermediate Polymer Silo-Solvent	DOMC/HZZC
GBA	DOME/HZZE	Intermediate Polymer Silo CH_2O	DOMC/HZZC
HAA	DOME/HZZE	Virtual Source for Condenser Mass Balance	DOMC/HZZC
HAB	DOME/HZZE	Virtual Source for Condenser Mass Balance	DOMC/HZZC
HAD	DOME/HZZE	Virtual Source for Condenser Mass Balance	DOMC/HZZC
HAF	DOME/HZZE	Virtual Source for Condenser Mass Balance	DOMC/HZZC
HAH	DOME/HZZE	Virtual Source for Condenser Mass Balance	DOMC/HZZC
HBA	DOME/HZZE	S/U Seed Make Up	DOMC/HZZC
HBJ	DOME/HZZE	Condenser Wash	DOMC/HZZC
HBK	DOME/HZZE	Condenser Wash	DOMC/HZZC
HBM	DOME/HZZE	Isolation System Vent	DOMC/HZZC
HBY	HBYE	Fuel TT Loading from "A" to "B" Organic Tank	NA
HBZ	HBZE	TT Loading – "A" Aqueous Tank	NA
DOU	DOUE	Tank Farm Sump	NA

Emission Unit ID	Emission Point ID	Emission Unit Description	Control Device
DOW	DOWE	Still-House Sump	NA
GAD	DOXE	Reactor/FC Steam Out	DHTC1/DHTC2
GAE	DOXE	Reactor/FC Steam Out	DHTC1/DHTC2
GAF	DOXE	Reactor/FC Steam Out	DHTC1/DHTC2
DOY	DOYE	Poly. Bldg. West Sump	NA
DLD	DOZE	#1 Secondary Condenser Steamout	NA
DLF	DOZE	#2 Secondary Condenser Steamout	NA
DOZ	DOZE	Capper Bldg. Sump	NA
DPA	DPAE	Waste Area Sump	NA
DPO	DPOE	Column Tails Analyzer	NA
GZZ1	DEME	Maintenance Jet for #1 Capper (DPH)	DEM-OH
GZZ2	DEME	Maintenance Jet for #2 Capper (DPL)	DEM-OH
HZW	HZZE	Flare – Particulate	HZZC
HZX	HZZE	Flare – NO_X	HZZC
HZY	HZZE	Flare – SO_2	HZZC
HZZ	HZZE	Flare – CO	HZZC
DAKC	DAKE	Scrubber	NA
DCMC	DCYE	Condenser	NA
DIN	DINE	Vapor Condenser	NA
DOMC	DOME	Boiler	NA
DMLC	DMLE	Vapor Vent Condenser	NA
HZZC	HZZE	Flare	NA
DHTC1	DOXE	Vapor Condenser	NA
DHTC2	DOXE	Vapor Condenser	NA
DEM-OH	DEME	Emergency Wet Scrubber	NA
D11	D11E	Solvent Column Upper Layer Tank RV Change Out	NA
D12	D12E	Solvent Column Decanter RV Change Out	NA
D14	D14E	Recycle Solvent Storage Tank RV Change Out	NA
D15	D15E	Solvent Storage Tank RV Change Out	NA
D16	D16E	Silica Gel Bed “A” RV Change Out	NA
D17	D17E	Silica Gel Bed “B” RV Change Out	NA
D18	D18E	Silica Gel Bed “C” RV Change Out	NA

Emission Unit ID	Emission Point ID	Emission Unit Description	Control Device
D20	D20E	Solvent Column Decanter RV Change Out	NA
D21	D21E	Solvent Column Upper Layer Tank RV Change Out	NA
D27	D27E	LBC Distillate Receiver RV Change Out	NA
D35	D35E	#1 Slurry Feed Tank RV Change Out	NA
D37	D37E	#1 Centrifuge RV Change Out	NA
D39	D39E	#1 Centrifuge Receiver Tank RV Change Out	NA
D40	D40E	#2 Centrifuge Receiver Tank RV Change Out	NA
D44	D44E	#1 Dryer-Decanter U/L Tank RV Change Out	NA
D46	D46E	#2 Dryer-Decanter U/L Tank RV Change Out	NA
D52	D52E	VRS Steam Stripper Distillate Tank RV Change Out	NA
D57	D57E	"A" RP Silo RV Change Out	NA
D59	D59E	"C" RP Silo RV Change Out	NA
D63	D63E	#2 Centrifuge RV Change Out	NA
D65	D65E	#1 Capper RV Change Out	NA
D66	D66E	#2 Capper RV Change Out	NA
D69	D69E	Catalyst Mix Tank RV Change Out	NA
DDX	DOME/HZZE	Alcohol Decanter	DOMC/HZZC
DOJ	DOJE	Emergency Divert (Hi-Hi O_2) from Knock-Out Pot	NA
DOV	DOVE	Furnace/Flare Emergency Divert	NA
DEM-OH	DEME	DEWS Scrubber – Emergency Use OH Protection Only	NA
Alternative Operating Scenario: Process Unit Shutdown			
DAL-Alt	DEME	"E" Tank	None
DCF-Alt	DEME	Recycle Solvent Storage Tank	None
DCG – Alt	DEME	Solvent Storage Tank	None
DDW-Alt	DEME	Low Boiler Column Feed Tank	None
DEZ-Alt	DEME	Concentrator Feed Tank	None
DMH-Alt	DEME	Recycle Acetic Anhydride Storage Tank	None
DON-Alt	DEME	"B" Organic Tank	None
DOO-Alt	DEME	"A" Organic Waste Feed Tank	None
DOP-Alt	DEME	"A" Aqueous Tank	None
DEB-Alt	DEME	Dehy Feed Tank	None
DDO-Alt	DAKE	Recycle Alcohol Tank	None
DEA-Alt	DAKE	Pyro Feed Tank	None

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.

2.2. Acronyms

CAAA	Clean Air Act Amendments
CBI	Confidential Business Information
CEM	Continuous Emission Monitor
CES	Certified Emission Statement
C.F.R. *or* CFR	Code of Federal Regulations
CO	Carbon Monoxide
C.S.R. *or* CSR	Codes of State Rules
DAQ	Division of Air Quality
DEP	Department of Environmental Protection
dscm	Dry Standard Cubic Meter
FOIA	Freedom of Information Act
HAP	Hazardous Air Pollutant
HON	Hazardous Organic NESHAP
HP	Horsepower
lbs/hr	Pounds per Hour
LDAR	Leak Detection and Repair
M	Thousand
MACT	Maximum Achievable Control Technology
MDHI	Maximum Design Heat Input
MM	Million
MMBtu/hr *or* mmbtu/hr	Million British Thermal Units per Hour
MMCF/hr *or* mmcf/hr	Million Cubic Feet per Hour
NA	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
$PM_{2.5}$	Particulate Matter less than 2.5 µm in diameter
PM_{10}	Particulate Matter less than 10µm in diameter
Ppb	Pounds per Batch
Pph	Pounds per Hour
Ppm	Parts per Million
Ppm_V or ppmv	Parts per Million by Volume
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
VOL	Volatile Organic Liquids

2.3. Authority

This Construction Permit is issued in accordance with West Virginia air pollution control law W.Va. Code §§ 22-5-1. et seq. and the following Legislative Rules promulgated thereunder:

2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation*;

2.4. Term and Renewal

2.4.1. This Permit supersedes and replaces previously issued Permit R13-1849H. This Permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any other applicable legislative rule;

2.4.2. The Secretary shall review and may renew, reissue or revise this Construction Permit for cause.

2.5. Duty to Comply

2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Applications R13-1849, R13-1849A, R13-1849B, R13-1849C, R13-1849D and R13-1849E, R13-1849F, R13-1849G, R13-1849H, R13-1849I and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to;
[45CSR§§13-5.11 and -10.3.]

2.5.2. 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;

2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;

2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

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 administratively updating, modifying, revoking, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records 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.

2.7. Duty to Supplement and Correct Information

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.

2.8. Administrative Permit Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-4.]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-5.4.]

2.10 Major Permit Modification

The permittee may request a major modification to this permit as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.
[45CSR§14-6. *or* 45CSR§19-12.]

2.11. Inspection and Entry

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.

2.12. Emergency

2.12.1. An "emergency" means any situation arising from sudden and reasonable 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.

2.12.2. 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 Section 2.12.3 are met.

2.12.3. 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. 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 must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

2.12.5 The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should 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.

2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. Property Rights

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

2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. **[45CSR§13-10.1.]**

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

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 defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

3.0. Facility-Wide Requirements

3.1. Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency 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, suffer, allow or permit 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). A copy of this notice is required to be sent to the USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health.
[40CFR61.145(b) and 45CSR§34]

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. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]

3.1.6. **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.]

3.2. Monitoring Requirements

[Reserved]

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 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit will be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as 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. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit will be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.

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.

[WV Code § 22-5-4(a)(15)]

3.4. Recordkeeping Requirements

3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports, and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. 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 a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.

3.4.2. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received. Such record shall contain an assessment of the validity of the complaints as well as any corrective actions taken.
[State Enforceable Only]

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible

official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.

3.5.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class 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
Charleston, WV 25304-2345

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. **Operating Fee**

3.5.4.1. In accordance with 45CSR30 – Operating Permit Program, 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. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

3.5.5. **Emissions inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

4.1.1. Maximum allowable hourly and annual emissions from the "D" Area – Acetal Resins Manufacturing Unit shall not exceed the limitations set forth in Table 4.1.1.

Table 4.1.1. Emission Limits for Acetal Resin Manufacturing Unit

Emission Point	Pollutant	Emission Limit	
		pph	tpy
DAKE	VOC	3.38	14.81
	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	4.4	13.8
	NO_X	12.1	23.7
	PM_{10}	1.0	4.5
	SO_2	2.6	11.0
	VOC	17.77	30.26
	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	12.2	50.0
	NO_X	6.6	24.6
	PM_{10}	0.5	1.3
	SO_2	0.2	0.3
	VOC	79.00	58.85
	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	0.1
	Formaldehyde	0.01	0.01
DCOE	VOC	8.3	2.3
	Formaldehyde	0.01	0.01
	Toluene	0.04	0.01
	THAP	0.04	0.01

Emission Point	Pollutant	Emission Limit	
		pph	tpy
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	0.2
	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
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

Emission Point	Pollutant	Emission Limit	
		pph	tpy
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	0.5	1.8
	Methanol	0.41	1.77
DIRE	VOC	0.1	0.1
	Methanol	0.01	0.04
DISE	VOC	0.1	0.1
	Methanol	0.01	0.04
DJXE	VOC	0.2	0.1
	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
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

Emission Point	Pollutant	Emission Limit	
		pph	tpy
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	18.59	0.28
	Formaldehyde	1.23	0.02
	Hexane	1.51	0.02
	Toluene	0.60	0.01
	THAP	3.35	0.06
DPAE	VOC	0.1	0.1
	Hexane	0.01	0.01
	Toluene	0.01	0.01
	THAP	0.01	0.01

4.1.2. The column analyzer (emission unit DPO; emission point DPOE) have 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.

4.1.3. The permittee shall comply with all applicable standards and requirements of 45CSR§7 – "To Prevent and Control Particulate Air Pollution from Manufacturing Process Operations". The pertinent sections of 45CSR§7 applicable to this facility include, but are not limited to, the following:

4.1.3.1. 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 4.1.3.2.
[45CSR§7-3.1.]

4.1.3.2. The provisions of Section 4.1.3.1 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. **[45CSR§7-3.2.]**

4.1.3.3. 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 4.1.3.4 is required to have a full enclosure and be equipped with a particulate matter control device. **[45CSR§7-3.7.]**

4.1.3.4. 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 operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable. **[45CSR§7-5.1.]**

4.1.3.5. The permittee 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.]**

4.1.4. The permittee shall comply with all applicable standards and requirements of 45CSR§2 – "To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers" and 40CFR Part 60, Subpart Dc – "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units". The pertinent sections of 45CSR§2 and 40CFR§60.40c applicable to this facility include, but are not limited to, the following:

4.1.4.1. 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 45CSR§2-3.1 and 40CFR§60.43c(c)]** ***{Comparable Fuels Boiler (DOM) Only}***

4.1.4.2. If the permittee can demonstrate to the satisfaction of the Director that compliance with Section 4.1.4.1 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%) opacity, as determined in accordance with 40 CFR Part 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 40CFR§60.43c(c)]** ***{Comparable Fuels Boiler (DOM) Only}***

4.1.4.3. The visible emission standards set forth in Sections 4.1.4.1 and 4.1.4.2 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 40CFR§60.43c(d)]** ***{Comparable Fuels Boiler (DOM) Only}***

4.1.4.4. 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.

[45CSR§2-5.1]

4.1.5. The permittee shall comply with all applicable standards and requirements of 45CSR§6 – "To Prevent and Control Air Pollution from Combustion of Refuse" and 40CFR Part 60, Subpart A– "Standards of Performance for New Stationary Sources – General Provisions". The pertinent sections of 45CSR§6 and 40CFR§60.1 applicable to this facility include, but are not limited to, the following:

4.1.5.1. 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.
[45CSR§6-4.3] ***{Flare (HZZ) Only}***

4.1.5.2. The provisions of Section 4.1.5.1 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.
[45CSR§6-4.4] ***{Flare (HZZ) Only}***

4.1.5.3. 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.
[45CSR§6-4.5] ***{Flare (HZZ) Only}***

4.1.6. The permittee shall comply with all applicable standards and requirements of 40CFR Part 60, Subpart NNN – "Standards of Performance for Volatile Organic Compound (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations". The subpart includes requirements to limit VOC emissions from distillation units and associated recovery systems. The subpart also includes specific notification, testing, monitoring, recordkeeping, and reporting requirements. The pertinent sections of 40CFR§60.660 applicable to this facility include, but are not limited to, the following:

[40CFR§60.660] ***{DDL, DDS, DEP, DEU, DEW, DMM, DML, and GBU Only}***

4.1.6.1. The permittee shall comply with paragraph (a), (b), or (c) of this section for each vent stream of an affected facility subject to 40CFR§60.660(a). The permittee shall either:

a. Reduce emissions of TOC (less methane and ethane) by 98 weight-percent, or to a TOC (less methane and ethane) concentration of 20 ppmv, on a dry basis corrected to 3 percent oxygen, whichever is less stringent. If a boiler or process heater is used to comply with this paragraph, then the vent stream shall be introduced into the flame zone of the boiler or process heater; or

b. Combust the emissions in a flare that meets the requirements of 40CFR§60.18; or

c. Maintain a TRE index value greater than 1.0 without use of VOC emission control devices.

[40CFR§60.662] ***{DDL, DDS, DEP, DEU, DEW, DMM, DML, and GBU Only}***

4.1.7. The permittee shall comply with all applicable standards and requirements of 40CFR Part 60, Subpart RRR – "Standards of Performance for Volatile Organic Compound (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes". The subpart includes requirements to limit VOC emissions from reactor processes and associated recovery systems. The subpart also includes specific notification, testing, monitoring, recordkeeping, and reporting requirements. The pertinent sections of 40CFR§60.700 applicable to this facility include, but are not limited to, the following:

[40CFR§60.700] ***{Reactor DPM Only}***

4.1.7.1. The permittee shall comply with paragraph (a), (b), or (c) of this section for each vent stream of an affected facility subject to 40CFR§60.770(a). The permittee shall either:

a. Reduce emissions of TOC (less methane and ethane) by 98 weight-percent, or to a TOC (less methane and ethane) concentration of 20 ppmv, on a dry basis corrected to 3 percent oxygen, whichever is less stringent. If a boiler or process heater is used to comply with this paragraph, then the vent stream shall be introduced into the flame zone of the boiler or process heater; or

b. Combust the emissions in a flare that meets the requirements of 40CFR§60.18; or

c. Maintain a TRE index value greater than 1.0 without use of VOC emission control devices.

[40CFR§60.702] ***{Reactor DPM Only}***

4.1.8. The permittee shall comply with all applicable standards and requirements of 40CFR Part 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 40CFR§63.1100 Applicable to this facility include, but are not limited to, the following:
[40CFR§63.1100]

4.1.8.1 *Storage Vessel Provisions.* Subject storage vessels shall be routed through a closed vent system to reduce emissions of total organic HAP by 95 weight percent. Emissions shall be vented through a closed vent system to any combination of control devices meeting the control requirements of subpart SS (national emission standards for closed vent systems, control devices, recovery devices, and routing to a fuel gas system or a process) as specified in §63.982(a)(1) (Storage vessel requirements) or comply with the requirements of subpart WW (national emission standards for storage vessels (control level 2)) ;40CFR§63.1103(a) Table 1(1). Storage vessels subject to requirements of WW and the requirements of 40CFR Part 60 Subpart Kb only have to comply with this 40CFR Part 63 Subpart WW; **[40 CFR§63.1103(a) Table 1(1)]**

4.1.8.2. *Front End Process Vent Provisions.* Front end process vents must reduce emissions of total organic HAP by using a flare meeting the requirement of 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 subpart SS as specified in §63.982(a)(2); **[40CFR§63.1103(a) Table1(2)]**

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

Table 4.1.8.2.1. Front End Process Vents – 40CFR Part 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
GBV	DOME/HZZE	DOMC/HZZC
DDW	DOME/HZZE	DOMC/HZZC
DAL	DOME/HZZE	DOMC/HZZC
DDO	DAKE	DAKC
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
GBU	DOME/HZZE	DOMC/HZZC

4.1.8.3. *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 Subpart SS or incorporate a subpart SS control system to capture and treat 98 percent of total organic HAP or reduce TOC to less than 20 ppmv ; **[40CFR§63.1103(a) Table 1(3)]**

Back end process vents with a TRE index greater than or equal to 1 and less than or equal to 4, shall monitor and keep records of equipment operating parameters specified to be monitored under subpart SS, §63.990(c) (absorber, condenser, and carbon adsorber monitoring) or 63.995(c) (other noncombustion systems used as a control device monitoring); **[40CFR§63.1103(a) Table 1(4)]**

4.1.8.3.1. The designated back end process vents subject to 40CFR§63.1103(a) Table 1(3) and (4) are listed in the following table.

Table 4.1.8.3.1. Back End Process Vents – 40CFR Part 63 Subpart YY

Emission Unit ID	Emission Point ID	Control Device
DML	DMLE	TRE Calculations
DDF	DDFE	TRE Calculations
DOH	DOHE	TRE Calculations
DCL	DCLE	TRE Calculations
DCA	DCAE	TRE Calculations
DCE	DCEE	TRE Calculations
DIE	DOME/HZZE	DOMC/HZZC
DIF	DOME/HZZE	DOMC/HZZC
DIG	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
DJV	DOME/HZZE	DOMC/HZZC
DJW	DOME/HZZE	DOMC/HZZC
DLM	DOME/HZZE	DOMC/HZZC
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

4.1.8.4. *Equipment Leak Provisions.* Equipment in organic HAP service shall comply with the LDAR requirements of 40CFR Part 63 Subpart UU (control level 2); **[40CFR§63.1103(a) Table 1(5)]**. 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. The area shall perform the LDAR program as specified in 40CFR Part 63 Subpart UU using data previously collected using 40CFR Part 63 Subpart H to set inspection frequencies for the replacement method.
[Compliance with this streamlined condition assures compliance with the LDAR requirements of 45CSR§27 and 45CSR§21-37 where the equipment is subject to multiple requirements.]

4.1.8.5. *Process Wastewater Provisions.* For all process wastewater generated from the Acetal Resin process, the permittee shall comply with the HON process wastewater requirements of 40CFR§§63.132 through .148, except as specified in paragraphs 40CFR§§63.1106(a)(1) through (a)(16); **[40CFR§63.1103(a) Table 1(6)]**.

4.1.8.6. *Maintenance Wastewater Provisions.* For all maintenance wastewater generated from the Acetal Resin process, the permittee shall comply with the HON maintenance wastewater requirements of 40CFR§63.105; **[40CFR§63.1103(a) Table 1(7)]**. Where terms used in 40CFR§63.105 are defined in 40CFR§63.1101, the definition in 40CFR§63.1101 shall apply. For terms used in 40CFR§63.105 that are not defined in 40CFR§63.1101, the definition in 40CFR§§63.101 and .111 shall apply.

4.1.8.7. *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 40CFR Part 63 Subpart G for each item of equipment meeting the criteria specified in paragraphs (1) through (3) of this section and either paragraph (4)(i) or (ii) of this section, with the exceptions provided in paragraphs (5) and (6) of this section; **[40CFR§63.1103(a) Table 1(8) and 40CFR§63.1106(c)]**.

(1) The item of equipment is one of the types of equipment identified in paragraphs (1)(i) through (vii) of this section.

(i) Drain or drain hub;

(ii) Manhole (including sumps and other points of access to a conveyance system);

(iii) Lift station;

(iv) Trench;

(v) Pipe;

(vi) Oil/water separator; and

(vii) Tanks with capacities of 38 m^3 or greater.

(2) The item of equipment is part of an affected source that is subject to this subpart

(3) The item of equipment is controlled less stringently than in Table 35 of 40CFR Part 63 Subpart G, and the item of equipment is not otherwise exempt from the provisions of 40CFR Part 63 Subpart YY, or a referenced subpart of 40CFR Part 63.

(4) The item of equipment:

(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 40CFR Part 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 40CFR Part 63 Subpart YY) at an annual average flow rate greater than or equal to 10 liters per minute.

(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 40CFR Part 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 (4)(ii)(A) and (B) of this section.

(A) The characteristics of the stream being received shall be determined at the inlet to the tank.

(B) The characteristics shall be determined according to the procedures in 40CFR§63.144(b) and (c).

(5) When terms used in Table 35 of 40CFR Part 63 Subpart G are defined in 40CFR§63.1101, the definition in 40CFR§63.1101 shall apply, for the purpose of 40CFR Part 63 Subpart YY. For terms used in Table 35 of 40CFR Part 63 Subpart G that are not defined in 40CFR§63.1101, the definitions in 40CFR§63.101 and 40CFR§63.111 shall apply.

(6) When Table 35 of 40CFR Part 63 Subpart G refers to 40CFR§63.119(e)(1) or (e)(2) in the requirements for tanks, the requirements in 40CFR§63.982(a)(1) shall apply, for purposes of 40CFR Part 63 Subpart YY.

4.1.8.8. *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].

4.1.8.8.1. 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 4.1.8.8.1 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 4.1.8.8.2 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 4.1.8.8.1

Sources than 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	DMC	GAC	HBJ
DDL	DGS	DJT	DOC	GAN	HBK
DDS	DGV	DJU	DOD	GAO	HBM
DDZ	DGX	DJV	DOG	GAZ	DDX
DEP	DHS	DJW	DOX	GAB	
DEU	DIC	DLM	DPH	HAA	

4.1.8.8.2. Maximum allowable hourly emissions from the "D" Area – Acetal Resins Manufacturing Unit shall not exceed the limitations set forth in Table 4.1.8.8.2 when operating under the AOS.

Table 4.1.8.8.2 Emission Limits for the AOS

Emission Point ID	Emission Unit ID	Regulated Pollutant	Emission Limit (lb/hr)
DEME	DAL-Alt	Formaldehyde Total HAPs Total VOCs	0.01 0.01 0.01
	DCF-Alt		
	DCG-Alt		
	DDW-Alt		
	DEZ-Alt		
	DMH-Alt		
	DON-Alt		
	DOO-Alt		
	DOP-Alt		
	DEB-Alt		
DAKE	DDO-Alt DEA-Alt	Formaldehyde	0.01
		Total HAPs	0.01
		Total VOCs	0.01

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

4.1.8.8.3.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 CFR Part 63. The plan shall also address routine or otherwise predictable CPMS malfunctions. **[40 CFR§63.1111(a)(1)]**

4.1.8.8.3.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. **[40 CFR§63.1111(a)(2)]**

4.1.8.8.3.c. If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the charactieristics 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. **[[40 CFR§63.1111(a)(5)]**

4.1.9. The permittee shall comply with all applicable standards and requirements of 40CFR Part 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 40CFR Part 63 Subpart YY. This subpart also includes specific notification, testing, monitoring, recordkeeping, and reporting requirements. The pertinent sections of 40CFR§63.980 Applicable to this facility include, but are not limited to, the following:
[40CFR§63.980]

4.1.9.1. *Closed Vent Systems Provisions.* **[40CFR§63.983]**

4.1.9.1.1. *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; **[40CFR§63.983(a)].**

(1) 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.

(2) Closed vent systems used to comply with the provisions of 40CFR Part 63 Subpart SS shall be operated at all times when emissions are vented to, or collected by, them.

(3) 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 either paragraph (3)(i) or (3)(ii) of this section for each closed vent system that contains bypass lines that could divert a vent stream to the atmosphere.

(i) Properly install, maintain and operate a flow indicator that is capable of taking periodic readings. Records shall be generated as specified in

40CFR§63.998(d)(1)(ii)(A). The flow indicator shall be installed at the entrance of the bypass line.

(ii) Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. Records shall be generated as specified in 40CFR§63.998(d)(1)(ii)(B).

4.1.9.1.2. *Closed vent system inspection and monitoring requirements.* The provisions of 40CFR Part 63 Subpart SS apply to closed vent systems collecting regulated material from a regulated source. Inspection records shall be generated as specified in 40CFR§63.998(d)(1)(iii) and (iv); **[40CFR§63.983(b)]**.

(1) Except for any closed vent systems that are designated as unsafe or difficult to inspect as provided in paragraphs (b)(2) and (3) of 40CFR§63.983(b), each closed vent system shall be inspected as specified in paragraph (i) or (ii) of this section.

(i) If the closed vent system is constructed of hard-piping, the owner or operator shall comply with the requirements specified in paragraphs (i)(A) and (B) of this section.

(A) Conduct an initial inspection according to the procedures in paragraph (c) of this section; and

(B) Conduct annual inspections for visible, audible, or olfactory indications of leaks.

(ii) 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 40CFR§63.983(c).

4.1.9.2. *Flare Provisions.* Flares subject to 40CFR Part 63 Subpart SS shall meet the performance requirements in 40CFR§63.11(b). **[40CFR§63.987(a)]**

4.1.9.3. *Incinerators, Boilers and Process Heaters Provisions.* **[40CFR§63.988]**

4.1.9.3.1. 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 this section.

4.1.9.3.2. Incinerators, boilers, or process heaters used to comply with the provisions of a referencing subpart and 40CFR Part 63 Subpart SS shall be operated at all times when emissions are vented to them.

4.1.9.3.3. For boilers and process heaters, the vent stream shall be introduced into the flame zone of the boiler or process heater.

4.1.9.4. *Absorbers, Condensers and Carbon Adsorbers used as Control Devices Provisions.* **[40CFR§63.990]**

4.1.9.4.1. 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 this section.

4.1.9.4.2. Absorbers, condensers, and carbon adsorbers used to comply with the provisions of a referencing subpart and 40CFR Part 63 Subpart SS shall be operated at all times when emissions are vented to them.

4.1.9.5. *Absorbers, Condensers, Carbon Adsorbers and Other Recovery Device Used as Final Recovery Devices Provisions.* **[40CFR§63.993]**

4.1.9.5.1. Owners or operators using a final recovery device to maintain a TRE above a level specified in a referencing subpart shall meet the requirements of this section.

4.1.9.5.2. Recovery devices used to comply with the provisions of a referencing subpart and this subpart shall be operated at all times when emissions are vented to them.

4.1.9.5.3. Where a condenser is the final recovery device in the recovery system and the TRE index value is between the level specified in a referencing subpart and 4.0, an organic monitoring device capable of providing a continuous record or a condenser exit (product side) temperature monitoring device capable of providing a continuous record shall be used. Monitoring results shall be recorded as specified in 40CFR§63.998(b) and (c), as applicable. General requirements for monitoring and continuous parameter monitoring systems are contained in a referencing subpart and 40CFR§63.996. **[40CFR§63.993(c)(2)]**

4.1.10. The owner or operator of each storage vessel, specified in 40CFR§60.110b(a), either with a design capacity greater than or equal to 151 cubic meter containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa, or with a design capacity greater than or equal to 75 cubic meters but less than 151 cubic meters containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following:

a. A fixed roof in combination with an internal floating roof meeting the specifications of 40CFR§60.112b(1);

b. An external floating roof meeting the specifications of 40CFR§112b(2);

c. A closed vent system and control device meeting the following specifications:

1. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, subpart VV, §60.485(b).

2. The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions.

d. A system equivalent to those described in paragraphs a, b, or d of this section as provided by §60.114b of 40CFR Part 60, Subpart Kb.

[40CFR§60.112b] ***{Storage Vessels DON, DOP, and DMH Only}***

4.1.11. Material to be combusted in the Comparable Fuel Boiler (DOM) must meet the following specifications to be deemed a "comparable fuel" under 40CFR§261.38:

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

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

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

The Comparable Fuels Boiler (DOM) must meet the requirements of 40CFR§261.38(c)(2)(ii)(A).

[45CSR§25 and 40CFR§261.38] ***{Comparable Fuels Boiler (DOM) Only}***

4.1.12. Operating ranges for the comparable fuels boiler "DOM" 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 a possible exceedance according to the criteria specified in 40CFR Part 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 40CFR Part 63 Subpart SS. All sampling and analysis records must be maintained for a period of five (5) years.

4.1.13. *Operation and Maintenance of Air Pollution Control Equipment.* The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.11.]

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

a. 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 –

1. 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.

b. 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 45 CSR 27-10.4 and 45 CSR 27-10.5 or the reporting procedure required under 45 CSR 21-5.2.

[45CSR§21-40.4(e)] ***{D11, D12, D14, D15, D16, D17, D18, D20, D21, D27, D35, D37, D39, D40, D44, D46, D52, D57, D59, D63, D65, D66, D69}***

4.1.15. 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. [CO R21-97-47, Section III, Requirement 3]

4.2. Monitoring Requirements

4.2.1. The permittee shall perform monitoring of all equipment parameters listed in Appendix A per the minimum data collection frequency and per the data averaging period as indicated. The parameters specified in Appendix A 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 A shall be documented.

4.2.2. *Opacity Monitoring for Manufacturing Sources of Particulate Matter*. For the purpose of determining compliance with the opacity limits set forth in Sections 4.1.3 and 4.1.4, 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 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 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 45CSR§7A as soon a practicable, but within seventy-two (72) hours of the final visual emission check. A 45CSR§7A observation at a source(s) restarts the count of the number of consecutive readings with the presence of visible emissions.

4.2.3. *Opacity Monitoring for "DOM" 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 addition 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.

["Request for Alternative Monitoring System for Vent Gas Flow, Boiler Opacity and SO_2 Emissions" approved by EPA on February 13, 2001]

4.2.4. *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 CFR Part 60, Subpart Dc regulations, then analysis only needs to be done once per month for the next six (6) months. If compliance with 40 CFR Part 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.
["Request for Alternative Monitoring System for Vent Gas Flow, Boiler Opacity and SO_2 Emissions" approved by EPA on February 13, 2001]

4.2.5. *Flow Monitoring System for "DOM" Comparable Fuels Boiler and "HZZ" 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 (DOM), and at the vent gas line to the flare (HZZ) that is configured in parallel to the boiler (DOM) 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 NNN. 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.

4.2.6. *Temperature Monitoring for "DOM" Comparable Fuels Boiler.* In order to demonstrate compliance with the monitoring requirements specified in 40CFR63.988(c)(3), the "DOM" boiler shall operate a continuous temperature monitoring probe to be installed in the firebox. The temperature measured in the DOM boiler shall not drop below 850°C, as specified in 40CFR63.998(b)(3).
[40CFR§63.988(c)(3) and 40CFR§63.998(b)(3)] ***{Comparable Fuels Boiler (DOM) Only}***

4.2.7. *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 40CFR§63.998(a)(1) and reported as specified in 40CFR§63.999(a). **[40CFR§63.987(c)]**

4.2.8 *Incinerator, boiler, and process heater monitoring requirements.* Where an incinerator, boiler, or process heater is used, a temperature monitoring device capable of providing a continuous record that meets the provisions specified in paragraph 40CFR§63.988(c)(1), (2), or (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 40CFR§63.998(b) and (c), as applicable. General requirements for monitoring and continuous parameter monitoring systems are contained in the referencing subpart and 40CFR§63.996. **[40CFR§63.988(c)]**

4.2.8.1. Where an incinerator other than a catalytic incinerator is used, a temperature monitoring device shall be installed in the fire box or in the ductwork immediately downstream of the fire box in a position before any substantial heat exchange occurs. **[40CFR§63.988(c)(1)]**

4.2.8.2. 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. **[40CFR§63.988(c)(3)]**

4.2.9. *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 devices specified in paragraphs 40CFR§63.990(c)(1) through (3), as applicable, shall be used. Monitoring results shall be recorded as specified in 40CFR§63.998(b) and (c), as applicable. General requirements for monitoring and continuous parameter monitoring systems are contained in a referencing subpart and 40CFR§63.996. **[40CFR§63.990(c)]**

4.2.9.1. 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. **[40CFR§63.990(c)(1)]**

4.2.9.2. Where a condenser is used, a condenser exit (product side) temperature monitoring device capable of providing a continuous record shall be used. **[40CFR§63.990(c)(2)]**

4.2.10. In the event a source and associated emission point, identified in Appendix A of this permit, are subject to the MACT standards of 40CFR63 and the New Source Performance Standards of 40CFR60, and each standard sets forth a unique monitoring requirement for similar operating parameters, then demonstration of compliance with the MACT standard shall(s) demonstrate compliance with the monitoring requirements set forth in the applicable NSPS(s), where allowed by Federal regulation.

4.3. Testing Requirements

4.3.1. *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.]

4.3.2. *Compliance testing.* Any such test to determine compliance with particulate matter limitations set forth in Section 4.1.1 shall be conducted in accordance with Method 5 of 40CFR60 Appendix A, Method 201 or 201A of 40CFR§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.
[45CSR§7-8.1.]

4.3.3. 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.]

4.3.4. *Opacity testing.* Any test to determine compliance with the visible emission (opacity) limitations set forth in Sections 4.1.3 and 4.1.4 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 40CFR Part 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 40CSR60 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.

4.3.5. *Notification of compliance testing.* For any compliance test to be conducted by the permittee as set forth in Section 4.3, 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.

4.3.6. *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.
[45CSR§7-8.2]

4.3.7. 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 4.1.1. Such tests shall be conducted in accordance with the appropriate test method set forth in 40 CFR Part 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.
[45CSR§10-8.1.a] ***{Comparable Fuels Boiler (DOM) and Flare (HZZ) Only}***

4.3.8. In order to demonstrate compliance with the comparable fuels exemption under 40CFR261.38, excluded comparable/syngas fuels shall be retested as part of the waste analysis plan specified by 40CFR§261.38.c.7 or after a process change that could change the chemical or physical properties of the waste according to 40CFR§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.
[40CFR§261.38]

4.3.9. For the purpose of demonstrating compliance with the emission limitations of 40 CFR Part 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 40CFR§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:

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

b. 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.

c. A description or listing of unit and control equipment data that shall be monitored and recorded during the test run.

d. 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.

e. 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.

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

g. 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.

h. The minimum volume (SCF) if gas that shall be sampled per test run.

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

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

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

4.3.10. *Incinerators, boilers, and process heaters performance test requirements.* Except as specified in 40CFR§63.997(b), and paragraph 40CFR§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 fo a referencing subpart and 40CFR Part 63 Subpart SS according to this procedures in 40CFR§63.997. Performance test records shall be kept as specified in 40CFR§63.998(a)(2) and a performance test report shall be submitted as specified in 40CFR§63.999(a)(2). As provided in 40CFR§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 40CFR§63.986(b), no performance test is required for equipment leaks. **[40CFR§63.988(b)(1)]**

4.3.11. *Absorbers, condensers, and carbon adsorbers performance test requirements.* Except as specified in 40CFR§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 40CFR Part 63 Subpart SS according to the procedures in 40CFR§63.997. Performance test records shall be kept as specified in 40CFR§63.998(a)(2) and a performance test report shall be submitted as specified in 40CFR§63.999(a)(2). As provided in 40CFR§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 40CFR§63.986(b), no performance test is required to demonstrate compliance for equipment leaks. **[40CFR§63.990(b)]**

4.4. Recordkeeping Requirements

4.4.1. *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.

4.4.2. *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.

4.4.3. *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.

4.4.4. Compliance with Sections 4.4.2 and 4.4.3 may be shown by keeping similar records required by the requirements of the Startup, Shutdown, and Malfunction Plan as contained in 40CFR63 Subpart A and as may be amended by specific MACT subpart requirements

4.4.5. Records of all monitoring data required by Section 4.2.1 shall be maintained onsite as follows:

a. All monitoring data required by Section 4.2.1, as specified in Appendix A, 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.

b. For each out-of-range occurrence of a monitoring parameter value for the averaging period specified in Appendix A, 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.

c. 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.

d. In the event that an applicable rule or regulation (such as the MON MACT) requires monitoring more stringent than that required by Section 4.2.1, 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.

[45CSR§27-3.5 and 45CSR§13-5.11]

4.4.6. The permittee shall maintain records equivalent to the example emission reports supplied as Appendix B, Attachments A and B.

4.4.7. The permittee shall maintain records of all monitoring data required by Section 4.2.2 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 B, Attachment C. Should a visible emission observation be required to be performed per the requirements specified in 45CSR§7A, the data records of each observation

shall be maintained per the requirements of 45CSR§7A. For an emission unit out of service during the normal monthly evaluation, the record of observation may note "out of service" (OOS) or equivalent.

4.4.8. Records of the date and time of the visible emission observations required by Section 4.2.3, 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.
["Request for Alternative Monitoring System for Vent Gas Flow, Boiler Opacity and SO_2 Emissions" approved by EPA on February 13, 2001]

4.4.9. To demonstrate that the facility meets the benzene waste operations exemption under 40CFR61.342(a), the permittee shall maintain the records specified in 40CFR61.357 for each waste stream subject to §61.342 and determined to contain benzene by the procedures specified in §61.355(c).
[45CSR§15 and 40CFR Part 61, Subpart FF]

4.4.10. For each storage vessel specified in 40CFR§60.110b(a), the permittee shall keep readily accessible records showing the dimensions and an analysis showing the capacity of the storage vessel. This record shall be maintained for the life of the storage vessel.
[Compliance with this streamlined condition shall insure compliance with 40CFR§§60.116b(a) and (b)] ***{Storage Vessels DIN, DON, DOP, and DMH Only}***

4.4.11. For each storage vessel specified in 40CFR§60.116b(c), the permittee shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.
[40CFR§60.116b(c)] ***{Storage Vessels DON, DOP, and DMH Only}***

4.4.12 To demonstrate compliance with the conditions and requirements of section 4.1.14 of this permit the permittee shall generate and keep the following records for each relief device change –

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

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

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

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

4.4.12.4.1 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 3.4.1 of this permit

4.4.12.4.2 The recordkeeping required under Section 4.4.12 of this permit may supplement, but does not replace any other recordkeeping or reporting required under MACT rules or LDAR reporting requirements.

[45CSR§21-40.4(e)] ***{D11, D12, D14, D15, D16, D17, D18, D20, D21, D27, D35, D37, D39, D40, D44, D46, D52, D57, D59, D63, D65, D66, and D69}***

4.4.13 To demonstrate compliance with the process wastewater requirements of the Acetal MACT [40 CFR 63 Subpart YY] found in Section 4.1.8.4 of this permit, the permittee shall keep the following records:

4.4.13.1 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.

4.4.14 To demonstrate compliance with the Maintenance Wastewater provisions of the Acetal MACT [40 CFR 63 Subpart YY] found in Section 4.1.8.5 of this permit the permittee shall keep the following records:

4.4.14.1 40 CFR 63.105(a) 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 CFR 63.105] for maintenance wastewaters containing those organic HAP's listed in table 9 of subpart G of this part.

4.4.14.2 40 CFR 63.105(b) 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:

4.4.14.2.1 (b)(1) Specify the process equipment or maintenance tasks that are anticipated to create wastewater during maintenance activities.

4.4.14.2.2 (b)(2) Specify the procedures that will be followed to properly manage the wastewater and control organic HAP emissions to the atmosphere; and

4.4.14.2.3 (b)(3) Specify the procedures to be followed when clearing materials from process equipment.

4.4.14.3 40 CFR 63.105(c) The owner or operator shall modify and update the information required by paragraph (b) of this section as needed following each maintenance procedure based on the actions taken and the wastewaters generated in the preceding maintenance procedure.

4.4.14.4 40 CFR 63.105(d) The owner or operator shall implement the procedures described in paragraphs (b) and (c) of this section as part of the start-up, shutdown, and malfunction plan required under §63.6(e)(3) of subpart A of this part.

4.4.14.5 (e) The owner or operator shall maintain a record of the information required by paragraphs (b) and (c) of this section as part of the start-up, shutdown, and malfunction plan required under §63.6(e)(3) of subpart A of this part.

4.4.15 To demonstrate compliance with the Liquids in Open System provisions of the Acetal MACT [40 CFR 63 Subpart YY] found in Section 4.1.8.5 of this permit the permittee shall keep the following records:

4.4.15.1 The permittee shall maintain the records of the determinations for streams within the boundaries of the process covered by 40 CFR 63 Subpart YY.

4.4.15.1.1 The determinations of applicability for the streams within the boundaries of the process are to reviewed and revised when necessary in response to process changes that may result in changes to the wastewater characteristics.

4.4.16 To demonstrate compliance with the requirements of 40 CFR 63.983(a)(3)(I) found is Section 4.1.8.7.1.1 of this permit the permittee shall perform the following:

4.4.16.1 Maintain can 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.

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

4.4.17 To demonstrate compliance with the Closed Vent System Monitoring requirements found in 40 CFR 63.983(b) and in Section 4.1.8.7.2 of this permit the permittee shall perform the following:

4.4.17.1 Perform a special monitoring run of all components in the closed vent system using the methods and practices documented in 40 CFR 63 Subpart UU.

4.4.17.1.1 Retain the records on-site for review.

4.4.18 To demonstrate compliance with the requirements of 4.2.7 for flare monitoring under 40 CFR 63.987(c) the permittee shall:

4.4.18.1 Maintain a continuous record of pilot flame presence in the flare by recording the condition of the thermocouples.

4.4.18.1.1 Report as required by 40 CFR 63.999(a) when at least one (1) pilot flare is not available.

4.4.19 To demonstrate compliance with the requirements of 4.2.8 for Incinerators, Boilers and Process Heater monitoring under 40 CFR 63.988(c) the permittee shall:

4.4.19.1 The permittee shall install and operate a temperature monitoring device in the firebox (Combustion chamber) and keep a continuous record of the temperature.

4.4.19.1.1 The unit will be operated with the 3-hour rolling average temperature above the minimum temperature demonstrated during the most recent performance test.

4.4.19.1.2 Periods where the averaged firebox temperature is not above the minimum temperature shall be reported as part of the Acetal MACT periodic report.

4.4.20 To demonstrate compliance with the requirements of 4.2.9 for Absorbers, Condensers, Carbon Adsorbers used as control devices monitoring under 40 CFR 63.990(c) the permittee shall:

4.4.20.1 Keep record of all periods when the Scrubber DAKC is not operating when the unit has emissions routed to the unit.

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

4.4.20.2.1 Scrubbing Liquid temperature

4.4.20.2.2 Scrubbing Liquid specific gravity

4.4.20.3 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.

4.4.21 To demonstrate compliance with the requirements of 4.1.8.9.2 for Absorbers, Condensers, Carbon Adsorbers and Other Recovery Device Used as Final Recovery Devices monitoring under 40 CFR 63.993(c) the permittee shall:

4.4.21.1 Maintain records of all periods when the refiner vent condenser (DMLC) is not in operation while the source is in operation.

4.4.21.2 Maintain a continuous record of the product side temperature for the vent condenser DMLC.

4.4.21.2.1 Records date and times when the daily average product side temperature is not below the maximum limit specified.

4.4.21.2.1.1 Periods when the daily average temperature is exceeded shall be reported as part of the Acetal MACT periodic report.

4.4.22. To demonstrate compliance with the alternative operating scenario (AOS) requirements of section 4.1.8.8 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 4.1.8.8.2 during the period of AOS;

f. Inventory records of the equipment identified in Table 4.1.8.8.1 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.

4.4.23. For the purpose of demonstrating compliance with requirement 4.1.15, 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.

4.5. Reporting Requirements

4.5.1. The permittee shall submit a semi-annual report to the Director, including the following information, as applicable:

a. Calendar dates covered in the reporting period; **[40CFR§60.48c(e)(1)]**

b. Date and time of startup and shutdown; **[40CFR§60.7(b), 45CSR§10-8.3.c, and 45CSR§10A-7.1.a]**

c. The amounts of each fuel (gaseous and liquid) combusted during each day; **[40CFR§60.48c(g), 45CSR§10-8.3.c, and 45CSR§10A-7.1.a]**

d. The quantity of waste gas fed to the boiler during each day;

e. 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 4.2.4;

f. The raw material sulfur content (weight percent), calculated during the reporting period, at intervals specified in 4.2.4; **[40CFR§60.48c(e)(2)]**

g. Reasons for any noncompliance with the emission standards; and a description of corrective actions taken; **[40CFR§60.48c(e)(2)]**

h. 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; **[40CFR§60.48c(e)(5)]**

i. A "Monitoring Summary Report" and an "Excursion and Monitoring Plan Performance Report" pursuant to 45CSR§10-8.3 and 45CSR§10A-7.2.b; **[45CSR§10-8.3 and 45CSR§10A-7.2.b]**

To minimize emissions during excursions a response plan as specified by 45CSR§§10-8.2 and -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 as specified in 40CFR§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 40CFR Part 63, Subpart SS on a semi-annual basis as referenced in Section 4.5.2.

[40CFR§60.48c, 45CSR§10-8.3, and 45CSR§10A-7.2.b] ***{Comparable Fuels Boiler (DOM) Only}***

4.5.2. In order to demonstrate compliance with Acetal Resin portion of the Generic MACT, 40CFR63 Subpart YY, and Subpart SS referenced therein the applicable recordkeeping and reporting requirements of these subparts shall be adhered to.

APPENDIX A (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 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	≥ 11,000 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
DINC	DINE	Warm Brine Tank Vent Condenser	Cooling Liquid Temperature	≤ 20°C	continuous record	3-hour
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
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

Equipment ID	Emission Point	Description	Monitoring Parameter	Parameter Value	Data Collection Frequency	Data Averaging Period
DOD	DOME/HZZE	VRS Divert	Time Entire VRS is Diverted	maximum of 840 hours per rolling 12-moth 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
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

Equipment ID	Emission Point	Description	Monitoring Parameter	Parameter Value	Data Collection Frequency	Data Averaging Period
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
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

Equipment ID	Emission Point	Description	Monitoring Parameter	Parameter Value	Data Collection Frequency	Data Averaging Period
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 B (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. R13-1849G

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

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

Process Equipment – PM_{10}

Emission Point ID	Equipment ID	Control Device ID	PM_{10}	
			pph*	ppy^2

* 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. R13-1849G

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
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. R13-1849G

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

Opacity Observers – Method 22 Training Observer Name	Latest Certification Date	Certification Expiration Date	Current Date	Certification Current?

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

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. _____

[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.