

West Virginia Department of Environmental Protection
Division of Air Quality

Harold D. Ward
Cabinet Secretary

Permit to Operate



Pursuant to
Title V
of the Clean Air Act

Issued to:

The Chemours Company FC, LLC
Belle Plant
Specialty Chemical Intermediates (Group 5 of 5)
R30-03900001-2022

Laura M. Crowder

Laura M. Crowder

Director, Division of Air Quality

Laura M. Crowder

Digitally signed by: Laura M. Crowder
DN: CN = Laura M. Crowder email = Laura.M.
Crowder@wv.gov C = US O = West Virginia Department of
Environmental Protection OU = Division of Air Quality
Date: 2022.07.19 12:49:05 -0400

*Issued: July 19, 2022 • Effective: August 2, 2022
Expiration: July 19, 2027 • Renewal Application Due: January 19, 2027*

Permit Number: **R30-03900001-2022**
Permittee: **The Chemours Company FC, LLC**
Facility Name: **Belle Plant**
Manufacturing Unit: **Specialty Chemical Intermediates (Group 5 of 5)**
Permittee Mailing Address: **901 W. DuPont Ave., Belle, WV 25015**

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

Facility Location:	Belle, Kanawha County, West Virginia
Facility Mailing Address:	901 W. DuPont Ave., Belle, WV 25015
Telephone Number:	(304) 357-1000
Type of Business Entity:	Corporation
Facility Description:	Production of specialty chemical intermediates.
SIC Codes:	2869; 2879
UTM Coordinates:	451.90 km Easting • 4,232.60 km Northing • Zone 17

Permit Writer: Jonathan Carney

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

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

Table of Contents

1.0. Emission Units and Active R13, R14, and R19 Permits.....	3
2.0. General Conditions.....	6
3.0. Facility-Wide Requirements and Permit Shield.....	15

Source-specific Requirements

4.0. Reserved	21
5.0. Reserved	22
6.0. Dimethyl Ether (DME)	23
7.0. Dimethyl Sulfate (DMS).....	34
8.0. Carbon Monoxide Flare.....	42

Appendices

R13-2284 Recordkeeping Form.....	APPENDIX A
Consent Order CO-R21-97-31 ATTACHMENTS A and B	APPENDIX B

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

1.1 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Control Device
<i>Dimethyl Ether (DME)</i>				
DME010	451.100	Tank	1940	DMSCD01 - Flare
DME020	451.100	Reactor	1999	DMSCD01 - Flare
DME021	451.100	Vaporizer	1998	DMSCD01 - Flare
DME022	451.100	Heat Exchanger	1989	DMSCD01 - Flare
DME023	451.100	Heat Exchanger	1978	DMSCD01 - Flare
DME024	451.100	Filter	1960	DMSCD01 - Flare
DME025	451.100	Heater	2005	DMSCD01 - Flare
DME026	451.100	Heater	2005	DMSCD01 - Flare
DME040	451.100	Tank	1969	DMSCD01 - Flare
DME041	451.100	Condenser	1996	DMSCD01 - Flare
DME042	451.100	Condenser	1996	DMSCD01 - Flare
DME030	451.100	Column	1999	DMSCD01 - Flare
DME031	451.100	Filter	2001	DMSCD01 - Flare
DME032	451.100	Filter	2001	DMSCD01 - Flare
DME033	451.100	Reactor	1963	DMSCD01 - Flare
DME034	451.100	Condenser	2001	DMSCD01 - Flare
DME035	451.100	Condenser	2001	DMSCD01 - Flare
DME036	451.100	Cooler	1975	DMSCD01 - Flare
DME037	451.100	Condenser	1991	DMSCD01 - Flare
DME050	451.100	Column	1996	DMSCD01 - Flare
DME051	451.100	Condenser	1976	DMSCD01 - Flare
DME052	451.100	Heat Exchanger	1980	DMSCD01 - Flare
DME053	451.100	Reflux Drum	1976	DMSCD01 - Flare
DME056	451.100	Cooler	2005	DMSCD01 - Flare
DME07	451.100	Tank	1966	DMSCD01 - Flare
DME08	451.100	Tank	1974	DMSCD01 - Flare
DME09	451.100	Tank	1967	DMSCD01 - Flare
DME10	451.100	Tank	1978	DMSCD01 - Flare

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Control Device
DME11	451.100	Filter	1986	DMSCD01 - Flare
DME12	451.100	Filter	1986	DMSCD01- Flare
DME13	451.100	Product Loading	Before 1966	DMSCD01 – Flare
DME14	451.2	Tank	2002	None
<i>Dimethyl Sulfate (DMS)</i>				
DMS001	451.002	Tank	1978	DMSCD03 - Scrubber DMSCD04 - Demister DMSCD02 – Mist Eliminator (Emergency Back-up and Personnel Protection Only)
DMS002	451.003	Tank	1978	None
DMS003	451.003	Heat Exchanger	2011	None
DMS004	451.003	Filter	1981	None
DMS005	No Emissions	Tank	1978	None
DMS006	No Emissions	Heat Exchanger	2000	None
DMS007	451.100	Reactor	2000	DMSCD01 – Flare
DMS008	451.100	Tank	1978	DMSCD01 – Flare
DMS009	451.100	Eductor	2000	DMSCD01 – Flare
DMS010	451.100	Tank	1989	DMSCD01 - Flare
DMS011	451.100	Eductor	2000	DMSCD01 – Flare
DMS012	451.200	Kettle	1978	None
DMS013	451.200	Tank	1978	None
DMS014	451.200	Separator	2013	None
DMS015	451.200	Heat Exchanger	1978	None
DMS016	451.200	Separator	1966	None
DMS017	451.200	Vacuum Jet	2000	None
DMS018	451.200	Condenser	2000	None
DMS019	451.200	Condenser	2000	None
DMS020	451.200	Condenser	2000	None
DMS021	451.100	Tank	2015	DMSCD01 - Flare
DMS022	451.100	Tank	1937	DMSCD01 - Flare
DMS023	451.100	Tank	1978	DMSCD01 - Flare

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Control Device
DMS024	451.100	Tank	1978	DMSCD01 - Flare
DMS025	451.300	Tank	2000	None
DMS026	451.100	Tank	1983	DMSCD01 - Flare
DMS027	451.100	Filter	1975	DMSCD01 - Flare
DMS028	451.100	Separator	1983	DMSCD01 - Flare
DMS029	451.100	Loading Racks	Before 1966	DMSCD01 - Flare
<i>Carbon Monoxide Flare</i>				
---	209.001	CO Plant	1987	COFLARE - Flare
<i>Drum Plant</i>				
DP0027	DPDF	Drum Filler	Pre-1990	None

1.2. Active R13, R14, and R19 Permits

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

Permit Number	Date of Issuance
R13-0914B	October 31, 2008
R13-2284A	January 26, 2006

2.0 General Conditions

2.1 Definitions

- 2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.
- 2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the monthly data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months.

2.2 Acronyms

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

2.3. Permit Expiration and Renewal

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

2.4. Permit Actions

- 2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[45CSR§30-5.1.f.3.]

2.5. Reopening for Cause

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

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

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

2.7. Minor Permit Modifications

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

2.8. Significant Permit Modification

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

2.9. Emissions Trading

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

2.10. Off-Permit Changes

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

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

[45CSR§30-5.9.]

2.11. Operational Flexibility

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

[45CSR§30-5.8]

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

[45CSR§30-5.8.a.]

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

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

[45CSR§30-5.8.c.]

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

[45CSR§30-2.40]

2.12. Reasonably Anticipated Operating Scenarios

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

[45CSR§30-5.1.i.]

2.13. Duty to Comply

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

[45CSR§30-5.1.f.1.]

2.14. Inspection and Entry

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

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

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

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

- 2.16.1. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

[45CSR§30-5.1.f.2.]

2.17. Emergency

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

[45CSR§30-5.7.a.]

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

[45CSR§30-5.7.b.]

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

- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- b. The permitted facility was at the time being properly operated;
- c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

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

[45CSR§30-5.7.c.]

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

[45CSR§30-5.7.d.]

- 2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

[45CSR§30-5.7.e.]

2.18. Federally-Enforceable Requirements

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

[45CSR§30-5.2.a.]

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

2.19. Duty to Provide Information

- 2.19.1. The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

[45CSR§30-5.1.f.5.]

2.20. Duty to Supplement and Correct Information

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

[45CSR§30-4.2.]

2.21. Permit Shield

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

[45CSR§30-5.6.a.]

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

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

[45CSR§30-5.6.c.]

2.22. Credible Evidence

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

[45CSR§30-5.3.e.3.B.]

2.23. Severability

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

[45CSR§30-5.1.e.]

2.24. Property Rights

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

[45CSR§30-5.1.f.4]

2.25. Acid Deposition Control

2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.

- a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.

- b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.
- c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

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

[45CSR§30-5.1.a.2.]

3.0 Facility-Wide Requirements

3.1 Limitations and Standards

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

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

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

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

[40 C.F.R. 68]

3.2. Monitoring Requirements

- 3.2.1. None.

3.3. Testing Requirements

- 3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:
 - a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.
 - b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.
 - c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

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

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

3.4. Recordkeeping Requirements

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

[45CSR§30-5.1.c.2.A; 45CSR13, R13-2284, 4.4.1; 45CSR13, R13-0914, 4.4.1]

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

[45CSR§30-5.1.c.2.B.]

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

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

3.5. Reporting Requirements

- 3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
[45CSR§§30-4.4. and 5.1.c.3.D.]
- 3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
[45CSR§30-5.1.c.3.E.]
- 3.5.3. Except for the electronic submittal of the annual compliance certification and semi-annual monitoring reports to the DAQ and USEPA as required in 3.5.5 and 3.5.6 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class or by private carrier with postage prepaid to the address(es), or submitted in electronic format by e-mail as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

DAQ:

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

US EPA:

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

DAQ Compliance and Enforcement¹:
DEPAirQualityReports@wv.gov

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

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

DAQ:
DEPAirQualityReports@wv.gov

US EPA:
R3_APD_Permits@epa.gov

[45CSR§30-5.3.e.]

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

DAQ:
DEPAirQualityReports@wv.gov

[45CSR§30-5.1.c.3.A.]

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

3.5.8. **Deviations.**

- a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:
1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.
 2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.
 3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.
 4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C.]

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

[45CSR§30-5.1.c.3.B.]

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

[45CSR§30-4.3.h.1.B.]

- 3.5.10. **Reports of excess emissions.** Except as provided in 3.5.11, the owner or operator of any facility containing sources subject to 45CSR§21-5. shall, for each occurrence of excess emissions expected to last more than 7 days, within 1 business day of becoming aware of such occurrence, supply the Director by letter with the following information:

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

[45CSR§21-5.2]

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

3.6. Compliance Plan

- 3.6.1. None.

3.7. Permit Shield

- 3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.
- 3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.

4.0 Reserved

5.0 Reserved

6.0 Dimethyl Ether (DME)

6.1 Limitations and Standards

- 6.1.1. **Group 1 Process Vents.** The permittee shall reduce emissions of organic HAP from Group 1 process vents using a flare. The flare shall comply with the requirements of 40 C.F.R. §63.11(b). (*Emission Units: DME010, DME041, DME042, DME040, DME034, DME035, and DME033*) [45CSR34; 40 C.F.R. §§63.113(a), 63.113(a)(1), 63.113(a)(1)(i); 45CSR13, R13-2284, 4.1.9]
- 6.1.2. **Group 1 Wastewater Tanks.** For each wastewater tank that receives, manages, or treats a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream, the owner or operator shall comply with 6.1.3 and shall operate and maintain a fixed roof and closed-vent system that routes the organic hazardous air pollutants vapors vented from the wastewater tank to a control device. (*Emission Units: DME053*) [45CSR34; 40 C.F.R. §§63.133(a), (a)(2), and (a)(2)(i); 45CSR13, R13-2284, 4.1.9]
- 6.1.3. **Group 1 Wastewater Tanks.** To comply with the requirements of 6.1.2, the fixed roof shall meet the requirements of 6.1.3.1, the control device shall meet the requirements of 6.1.3.2, and the closed-vent system shall meet the requirements of 6.1.3.3. [45CSR34; 40 C.F.R. §63.133(b); 45CSR13, R13-2284, 4.1.9]
- 6.1.3.1. The fixed-roof shall meet the following requirements: [45CSR34; 40 C.F.R. §63.133(b)(1); 45CSR13, R13-2284, 4.1.9]
- Except as provided in 6.1.3.4, the fixed roof and all openings (e.g., access hatches, sampling ports, and gauge wells) shall be maintained in accordance with the requirements specified in 40 C.F.R. §63.148. [45CSR34; 40 C.F.R. §63.133(b)(i); 45CSR13, R13-2284, 4.1.9]
 - Each opening shall be maintained in a closed position (e.g., covered by a lid) at all times that the wastewater tank contains a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream except when it is necessary to use the opening for wastewater sampling, removal, or for equipment inspection, maintenance, or repair. [45CSR34; 40 C.F.R. §63.133(b)(ii); 45CSR13, R13-2284, 4.1.9]
- 6.1.3.2. The control device shall be designed, operated, and inspected in accordance with the requirements of 40 C.F.R. §63.139. Flares shall comply with the requirements of 40 C.F.R. §63.11(b). [45CSR34; 40 C.F.R. §§63.133(b)(2) and 63.139(e)(3); 45CSR13, R13-2284, 4.1.9]
- 6.1.3.3. Except as provided in 6.1.3.4, the closed-vent system shall be inspected in accordance with the requirements of 40 C.F.R. §63.148. [45CSR34; 40 C.F.R. §63.133(b)(3); 45CSR13, R13-2284, 4.1.9]
- 6.1.3.4. For any fixed roof tank and closed-vent system that is operated and maintained under negative pressure, the owner or operator is not required to comply with the requirements specified in 40 C.F.R. §63.148. [45CSR34; 40 C.F.R. §63.133(b)(4); 45CSR13, R13-2284, 4.1.9]

(*Emission Units: DME053*)

- 6.1.4. **Group 1 Process Wastewater Streams.** For wastewater streams that are Group 1 for Table 9 compounds, the owner or operator shall reduce, by removal or destruction, the mass flow rate by at least the fraction removal (Fr) values specified in Table 9 of 40 C.F.R. 63, Subpart G. The removal/destruction efficiency shall be determined by the procedures specified in 40 C.F.R. §63.145(c) for noncombustion treatment processes.

Table 9 – Organic HAP’s Subject to the Wastewater Provisions for Process Units at New and Existing Sources and Corresponding Fraction Removed (Fr) Values

Chemical Name	CAS No. ^a	Fr
Methanol	67561	0.31

^aCAS numbers refer to the Chemical Abstracts Service registry number assigned to specific compounds, isomers, or mixtures of compounds.

(refiner column and condenser) [45CSR34; 40 C.F.R. §63.138(e)(2) and Table 9 of 40 C.F.R. 63, Subpart G; 45CSR13, R13-2284, 4.1.9]

- 6.1.5. **Group 1 Process Wastewater Streams.** Residual removed from the Group 1 wastewater streams shall be controlled for air emissions by complying with 6.1.2 and by recycling the residual to the production process. [45CSR34; 40 C.F.R. §§63.138(k) and (k)(1); 45CSR13, R13-2284, 4.1.9]
- 6.1.6. **Maintenance Wastewater.** Each owner or operator of a source subject to 40 C.F.R. 63, Subpart F shall comply with the requirements of 6.1.6.1 through 6.1.6.3 for maintenance wastewaters containing those organic HAP’s listed in table 9 of 40 C.F.R. 63, Subpart G. [45CSR34; 40 C.F.R. §63.105(a); 45CSR13, R13-2284, 4.1.8]
- 6.1.6.1. The owner or operator shall prepare a description of maintenance procedures for management of wastewaters generated from the emptying and purging of equipment in the process during temporary shutdowns for inspections, maintenance, and repair (i.e., a maintenance-turn-around) and during periods which are not shutdowns (i.e., routine maintenance). The descriptions shall: [45CSR34; 40 C.F.R. §63.105(b); 45CSR13, R13-2284, 4.1.8]
- a. Specify the process equipment or maintenance tasks that are anticipated to create wastewater during maintenance activities. [45CSR34; 40 C.F.R. §63.105(b)(1); 45CSR13, R13-2284, 4.1.8]
 - b. Specify the procedures that will be followed to properly manage the wastewater and control organic HAP emissions to the atmosphere; and [45CSR34; 40 C.F.R. §63.105(b)(2); 45CSR13, R13-2284, 4.1.8]
 - c. Specify the procedures to be followed when clearing materials from process equipment. [45CSR34; 40 C.F.R. §63.105(b)(3); 45CSR13, R13-2284, 4.1.8]
- 6.1.6.2. The owner or operator shall modify and update the information required by 6.1.6.1 as needed following each maintenance procedure based on the actions taken and the wastewaters generated in the preceding maintenance procedure. [45CSR34; 40 C.F.R. §63.105(c); 45CSR13, R13-2284, 4.1.8]

- 6.1.6.3. The owner or operator shall implement the procedures described in 6.1.6.1 and 6.1.6.2 as part of the start-up, shutdown, and malfunction plan required under 40 C.F.R. §63.6(e)(3). **[45CSR34; 40 C.F.R. §63.105(d); 45CSR13, R13-2284, 4.1.8]**
- 6.1.7. **40 C.F.R. 63, Subpart H Requirements for Equipment Leaks.** The permittee shall comply with all applicable standards of 40 C.F.R. 63, Subpart H – “National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks.” The pertinent equipment leak standards include 40 C.F.R. §§63.162 (Standards: General), 63.163 (Standards: Pumps in light liquid service), 63.166 (Standards: Sampling connection systems), 63.168 (Standards: Valves in gas/vapor service and in light liquid service), 63.169 (Standards: Pumps, valves, connectors, and agitators in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service), and 63.174 (Standards: Connectors in gas/vapor service and in light liquid service). **[45CSR34; 40 C.F.R. 63, Subpart H; 40 C.F.R. §§63.162, 63.163, 63.166, 63.168, 63.169, and 63.174; 45CSR13, R13-2284, 4.1.10]**
- 6.1.8. **45CSR§21-37 Requirements for Equipment Leaks.** The permittee shall comply with all applicable requirements of 45CSR§21-37 – “Leaks from Synthetic Organic Chemical, Polymer, and Resin Manufacturing Equipment.” The pertinent equipment leak standards include Sections 45CSR§§21-37.3 through 37.8. To the extent that implementation of the requirements of 40 C.F.R. 60, 40 C.F.R. 61, or 40 C.F.R. 63 results in monitoring and repair, consistent with 45CSR§21-37, of all components in VOC service in any synthetic organic chemical, polymer, or resin manufacturing process unit, compliance with these federally enforceable standards will satisfy the requirements of 45CSR§21-37. **[45CSR§§21-37.3 through 37.8 and 37.1.c (State-Enforceable only); CO-R21-97-31, III.2 (State-Enforceable only); 45CSR13, R13-2284, 4.1.7]**
- 6.1.9. No person shall cause, suffer, allow or permit particulate matter to be discharged from any incinerator into the open air in excess of the quantity determined by use of the following formula:

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

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

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

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

For flare DMSCD01 (Emission Point 451.100), the 45CSR§6-4.1 hourly particulate emission limit is 0.54 lb/hr.

(Emission Point: 451.100) **[45CSR§6-4.1]**

- 6.1.10. No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater. *(Emission Point: 451.100)* **[45CSR§6-4.3]**
- 6.1.11. The provisions of 6.1.10 shall not apply to smoke which is less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per start-up. *(Emission Point: 451.100)* **[45CSR§6-4.4]**
- 6.1.12. Production of dimethyl ether shall not exceed a maximum of 4.5 production units per hour and 35 production units per year. **[45CSR13, R13-2284, 4.1.1.]**

- 6.1.13. Volatile organic compound (VOC) emissions from the dimethyl ether (DME) process, vented to the flare (Emission Point ID No. 451.100) shall not exceed 21.8 pounds per hour and 38.11 tons per year. **[45CSR13, R13-2284, 4.1.2]**
- 6.1.14. Total VOC emissions from the flare (Emission Point ID No. 451.100) shall not exceed 25.2 pounds per hour and 41.61 tons per year. Such emissions are as a result of the operation of both the DME process and the crude hold up tank for the Dimethyl Sulfate (DMS) process. **[45CSR13, R13-2284, 4.1.3]**
- 6.1.15. Compliance with the VOC emission limits set forth in 6.1.13 and 6.1.14 shall be determined by the methods set forth in Consent Order CO-R21-97-31. **[45CSR13, R13-2284, 4.1.4; 45CSR§21-40 (State-Enforceable only); CO-R21-97-31 (State-Enforceable only)]**
- 6.1.16. VOC emission limits set forth under 6.1.14, shall supersede those maximum allowable VOC emission limits (for Emission Point Identification Number 451.100) set forth in Consent Order CO-R21-97-31, entered into on September 10, 1997. **[45CSR13, R13-2284, 4.1.5; 45CSR§21-40 (State-Enforceable only); CO-R21-97-31 (State-Enforceable only)]**
- 6.1.17. The permitted facility shall comply with all applicable provisions of Consent Order CO-R21-97-31, entered into on September 10, 1997, except where emissions limits increase in 6.1.14. **[45CSR13, R13-2284, 4.1.6; 45CSR§21-40 (State-Enforceable only); CO-R21-97-31 (State-Enforceable only)]**
- 6.1.18. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate Flare DMSCD01 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary. **[45CSR13, R13-2284, 4.1.11; 45CSR§13-5.10]**
- 6.1.19. The permittee shall comply with the following applicable requirements from CO-R21-97-31 for Dimethyl Ether (DME) and Dimethyl Sulfate (DMS):
 - 6.1.19.1. On or after the effective date of Consent Order CO-R21-97-31 (September 10, 1997), the COMPANY shall, reduce the total maximum theoretical emissions of VOCs from all sources at the facility having hourly maximum theoretical VOC emissions of 6 lb/hr or greater, by not less than ninety (90) percent on both an hourly and annual basis, in accordance with the plan set forth in Attachment A of CO-R21-97-31; and shall continue to comply with such emissions reduction requirements and the emission limits set forth in Attachment A as Consent Order CO-R21-97-31 expressly provides. Compliance with the emission limits set forth in Attachment A of Consent Order CO-R21-97-31 shall be demonstrated by test or monitoring data, approved emission factors, material balances, and/or representative calculations in accordance with 45CSR21. The Attachment A limits from Consent Order CO-R21-97-31 for the Dimethyl Ether (DME) process and Dimethyl Sulfate (DMS) process (as revised by R13-2284A) are provided in APPENDIX B of this permit. **[45CSR§21-40 (State-Enforceable only); CO-R21-97-31, III.1 and Attachment A (State-Enforceable only); 45CSR13, R13-2284, 4.1.3, 4.1.5, 4.1.6, and 4.1.7]**

6.1.19.2. At all times, including periods of start-up, shutdown, and malfunction, the COMPANY shall maintain and operate the VOC emitting sources and associated air pollution control devices subject to the provisions of Consent Order CO-R21-97-31 in a manner consistent with good air pollution control practices for minimizing emissions. Compliance with the emission limits set forth in Attachment A of Consent Order CO-R21-97-31 shall be demonstrated at all times unless exception periods are provided for in accordance with this paragraph. The COMPANY shall comply with 3.5.10 and 3.5.11 (45CSR §§21-5.2 and 9.3) with respect to all periods of non-compliance with the emission limitations and emission reduction requests set forth in Attachment A of Consent Order CO-R21-97-31 resulting from unavoidable malfunctions of equipment. In the event that the emission limitation and/or emission reduction requirements for a source listed in Attachment A of CO-R21-97-31 cannot be met during routine start-ups, shutdowns, or routine maintenance activities, the COMPANY shall, within 180 days of the effective date of Consent Order CO-R21-97-31 (September 10, 1997), submit an operation and VOC emissions mitigation plan for such periods. If such plan is submitted, it shall contain the information outlined in Attachment B of CO-R21-97-31 and provided in APPENDIX B of this permit, and shall become an Appendix to Consent Order CO-R21-97-31. The Director may require reasonable revisions to the COMPANY's plan if he or she finds the routine start-up, shutdown, or maintenance resulting in excess VOC emissions not addressed by the plan occur or that the plan fails to provide for operation in a manner consistent with good air pollution control practices for minimizing emissions. VOC emissions and associated control procedures conforming to the COMPANY's plan submitted under this provision shall not be subject to the variance approval process of 3.5.11 (45CSR §21-9.3) provided that the COMPANY maintains test, monitoring, operating, and maintenance records containing sufficient information and detail to enable the COMPANY and the Director to verify compliance with the plan and associated VOC emissions control requirements. These records shall be maintained on-site for not less than three (3) years and be made available to the Director or his or her authorized representative upon request. The Director also may request submission of copies of such records. [45CSR §21-40 (State-Enforceable only); CO-R21-97-31, III.3 and Attachment B (State-Enforceable only); 45CSR13, R13-2284, 4.1.7]

6.2. Monitoring Requirements

- 6.2.1. **Group 1 Process Vents.** To demonstrate compliance with 6.1.1 for Group 1 process vents using a flare, a device (including but not limited to a thermocouple, ultra-violet beam sensor, or infrared sensor) capable of continuously detecting the presence of a pilot flame shall be installed, calibrated, maintained, and operated according to manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately. (*Emission Units: DME010, DME041, DME042, DME040, DME034, DME035, and DME033*) [45CSR34; 40 C.F.R. §§63.114(a) and 63.114(a)(2); 45CSR13, R13-2284, 4.1.9]
- 6.2.2. **Group 1 Process Vents.** The permittee shall comply with 6.2.2.1 for any bypass line between the origin of the gas stream (i.e., at an air oxidation reactor, distillation unit, or reactor as identified in 40 C.F.R. §63.107(b)) and the point where the gas stream reaches the process vent, as described in 40 C.F.R. §63.107, that could divert the gas stream directly to the atmosphere. Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes are not subject to this requirement. [45CSR34; 40 C.F.R. §63.114(d); 45CSR13, R13-2284, 4.1.9]

6.2.2.1. Properly install, maintain and operate a flow indicator that takes a reading at least once every 15 minutes. Records shall be generated as specified in 6.4.1.3. The flow indicator shall be installed at the entrance to any by-pass line that could divert the gas stream to the atmosphere. [45CSR34; 40 C.F.R. §63.114(d)(1); 45CSR13, R13-2284, 4.1.9]

(Emission Units: DME010, DME041, DME042, DME040, DME034, DME035, and DME033)

6.2.3. **Group 1 Process Wastewater Streams.** To demonstrate compliance with requirement 6.1.4, the permittee shall continuously monitor the column pressure and column bottoms temperature of the methanol column and the wastewater mass flow rate. The maximum column operating pressure is 31 psig and the minimum base temperature of the column bottoms is 124 °C. All monitoring equipment shall be installed, calibrated, and maintained according to the manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately. (*refiner column and condenser*) [45CSR34; 40 C.F.R. §§63.143(d), 63.143 (f), 63.143(g), and 63.146(b)(8)(ii); Letter from Joyce McCune-Gentry (DuPont Belle) to Elaine Wright (EPA) dated December 21, 1998; Letter from Joyce McCune-Gentry (DuPont Belle) to Dorena Au (EPA) dated April 21, 1999; Letter from Kathleen Henry (EPA) to Joyce McCune-Gentry (DuPont Belle) dated April 22, 1999; 45CSR13, R13-2284, 4.1.9]

6.2.4. For the purpose of determining compliance with the opacity limits set forth in Sections 6.1.10 and 6.1.11 for flare DMSCD01 (Emission Point 451.100), the permittee shall conduct visual emissions monitoring at a frequency of at least once per month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed during periods of normal operation of emission sources that vent from the referenced emission points for a sufficient time interval to determine if there is a visible emission. If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct a visual emission evaluation per 40 C.F.R. 60, Appendix A, Method 9 within three (3) days of the first identification of visible emissions. A 40 C.F.R. 60, Appendix A, Method 9 evaluation shall not be required if the visible emission condition is corrected within seventy-two (72) hours after the visible emission and the sources are operating at normal conditions. (*Emission Point: 451.100*) [45CSR§30-5.1.c]

6.3. Testing Requirements

6.3.1. **40 C.F.R. 63, Subpart H Testing Requirements for Equipment Leaks.** The permittee shall comply with all applicable test methods and procedures of 40 C.F.R. 63, Subpart H – “National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks” as specified in 40 C.F.R. §63.180 (Test methods and procedures). [45CSR34; 40 C.F.R. 63, Subpart H; 40 C.F.R. §63.180; 45CSR13, R13-2284, 4.1.10]

6.3.2. **45CSR§21-37 Testing Requirements for Equipment Leaks.** The permittee shall comply with all applicable test methods and procedures of 45CSR§21-37 – “Leaks from Synthetic Organic Chemical, Polymer, and Resin Manufacturing Equipment” as specified in 45CSR§21-37.9. To the extent that implementation of the requirements of 40 C.F.R. 60, 40 C.F.R. 61, or 40 C.F.R. 63 results in monitoring and repair, consistent with 45CSR§21-37, of all components in VOC service in any synthetic organic chemical, polymer, or resin manufacturing process unit, compliance with these federally enforceable standards will satisfy the requirements of 45CSR§21-37. [45CSR§§21-37.1.c and 37.9 (State-Enforceable only); CO-R21-97-31, III.2 (State-Enforceable only); 45CSR13, R13-2284, 4.1.7]

- 6.3.3. The permittee shall comply with all applicable provisions of 45CSR§21-41 regarding test methods and compliance procedures to demonstrate compliance with 6.1.14 and 6.1.19, except as otherwise approved by the Director. **[45CSR§21-41; CO-R21-97-31, III.5 (State-Enforceable only); 45CSR13, R13-2284, 4.1.4 and 4.1.6]**
- 6.3.4. At such reasonable times as the Director may designate, the operator of any incinerator shall be required to conduct or have conducted stack tests to determine the particulate matter loading, by using 40 C.F.R. 60, Appendix A, Method 5 or other equivalent EPA approved method approved by the Director, in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or the Director's authorized representative, may at the Director's option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices. (*Emission Point: 451.100*) **[45CSR§6-7.1]**

6.4. Recordkeeping Requirements

- 6.4.1. **Group 1 Process Vents.** To demonstrate compliance with 6.1.1 for Group 1 process vents using a flare, the permittee shall keep the following records up-to-date and readily accessible: **[45CSR34; 40 C.F.R. §63.118(a); 45CSR13, R13-2284, 4.1.9]**
- 6.4.1.1. Continuous records of the equipment operating parameters specified to be monitored under 6.2.1 and listed in table 3 of 40 C.F.R. 63, Subpart G. For flares, hourly records and records of pilot flame outages specified in table 3 of 40 C.F.R. 63, Subpart G shall be maintained in place of continuous records.

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

Control device	Parameters to be monitored	Recordkeeping and reporting requirements for monitored parameters
Flare	Presence of a flame at the pilot light [63.114(a)(2)]	1. Hourly records of whether the monitor was continuously operating and whether the pilot flame was continuously present during each hour.
		2. Record and report the presence of a flame at the pilot light over the full period of the compliance determination – NCS.
		3. Record the times and durations of all periods when all pilot flames are absent or the monitor is not operating.
		4. Report the times and durations of all periods when all pilot flames of a flare are absent – PR.
All control devices	Presence of flow diverted to the atmosphere from the control device [63.114(d)(1)]	1. Hourly records of whether the flow indicator was operating and whether diversion was detected at any time during each hour.
		2. Record and report the times and durations of all periods when the vent stream is diverted through a bypass line or the monitor is not operating – PR.

NCS = Notification of Compliance Status as described in 40 C.F.R. §63.152 and submitted on September 15, 1997.
 PR = Periodic Reports described in 40 C.F.R. §63.152.

[45CSR34; 40 C.F.R. §63.118(a)(1) and Table 3 of 40 C.F.R. 63, Subpart G; 45CSR13, R13-2284, 4.1.9]

6.4.1.2. Records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in 40 C.F.R. §63.152(f). For flares, records of the times and duration of all periods during which all pilot flames are absent shall be kept rather than daily averages. **[45CSR34; 40 C.F.R. §63.118(a)(2); 45CSR13, R13-2284, 4.1.9]**

6.4.1.3. Hourly records of whether the flow indicator specified under 6.2.2.1 was operating and whether a diversion was detected at any time during the hour, as well as records of the times and durations of all periods when the gas stream is diverted to the atmosphere or the monitor is not operating. **[45CSR34; 40 C.F.R. §63.118(a)(3); 45CSR13, R13-2284, 4.1.9]**

(Emission Units: DME010, DME041, DME042, DME040, DME034, DME035, and DME033)

6.4.2. **Group 1 Process Vents.** Each owner or operator subject to the control provisions for Group 1 process vents in 6.1.1 shall: **[45CSR34; 40 C.F.R. §63.117(a); 45CSR13, R13-2284, 4.1.9]**

6.4.2.1. Keep an up-to-date, readily accessible record of the data specified in 6.4.2.1.a through 6.4.2.1.c submitted as part of the Notification of Compliance Status report dated September 15, 1997. **[45CSR34; 40 C.F.R. §63.117(a)(1); 45CSR13, R13-2284, 4.1.9]**

a. Flare design (i.e., steam-assisted, air-assisted, or non-assisted); **[45CSR34; 40 C.F.R. §63.117(a)(5)(i); 45CSR13, R13-2284, 4.1.9]**

- b. All visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required by 40 C.F.R. §63.116(a). [45CSR34; 40 C.F.R. §63.117(a)(5)(ii); 45CSR13, R13-2284, 4.1.9]
- c. All periods during the compliance determination when the pilot flame is absent. [45CSR34; 40 C.F.R. §63.117(a)(5)(iii); 45CSR13, R13-2284, 4.1.9]

(Emission Units: DME010, DME041, DME042, DME040, DME034, DME035, and DME033)

- 6.4.3. **Group 1 Process Wastewater Streams.** Records of the column operating pressure and column bottoms temperature for the methanol column and the wastewater feed mass flow rate shall be recorded continuously on a distributive control system (DCS). *(refiner column and condenser)* [45CSR34; 40 C.F.R. §63.147(a)(4); Letter from Joyce McCune-Gentry (DuPont Belle) to Elaine Wright (EPA) dated December 21, 1998; Letter from Kathleen Henry (EPA) to Joyce McCune-Gentry (DuPont Belle) dated April 22, 1999; 45CSR13, R13-2284, 4.1.9]
- 6.4.4. **Maintenance Wastewater.** The owner or operator shall maintain a record of the information required by 6.1.6.1 and 6.1.6.2 as part of the start-up, shutdown, and malfunction plan required under 40 C.F.R. §63.6(e)(3). [45CSR34; 40 C.F.R. §63.105(e); 45CSR13, R13-2284, 4.1.8]
- 6.4.5. **40 C.F.R. 63, Subpart H Recordkeeping Requirements for Equipment Leaks.** The permittee shall comply with all applicable recordkeeping requirements of 40 C.F.R. 63, Subpart H – “National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks” as specified in 40 C.F.R. §63.181 (Recordkeeping requirements). [45CSR34; 40 C.F.R. 63, Subpart H; 40 C.F.R. §63.181; 45CSR13, R13-2284, 4.1.10]
- 6.4.6. **45CSR§21-37 Recordkeeping Requirements for Equipment Leaks.** The permittee shall comply with all applicable recordkeeping requirements of 45CSR§21-37 – “Leaks from Synthetic Organic Chemical, Polymer, and Resin Manufacturing Equipment” as specified in 45CSR§21-37.10, with the exception that all records shall be maintained for a period of five (5) years instead of three (3) years. To the extent that implementation of the requirements of 40 C.F.R. 60, 40 C.F.R. 61, or 40 C.F.R. 63 results in monitoring and repair, consistent with 45CSR§21-37, of all components in VOC service in any synthetic organic chemical, polymer, or resin manufacturing process unit, compliance with these federally enforceable standards will satisfy the requirements of 45CSR§21-37. [45CSR§§21-37.1.c and 37.10 (State-Enforceable only); 45CSR§30-5.1.c; CO-R21-97-31, III.2 (State-Enforceable only); 45CSR13, R13-2284, 4.1.7]
- 6.4.7. The permittee shall maintain records of all monitoring data required by Section 6.2.4 of this permit, documenting the date and time of each visible emission check, the emission point or equipment identification number, the name or means of identification of the responsible observer, the results of the check, and, if necessary, all corrective actions taken. Should a visible emission observation be required to be performed per the requirements specified in 40 C.F.R. 60, Appendix A, Method 9, the data records of each observation shall be maintained per the requirements of 40 C.F.R. 60, Appendix A, Method 9. For an emission unit out of service during the normal monthly evaluation, the record of observation may note “out of service” (OOS) or equivalent. These records shall be maintained on site for a period of five years and shall be made available to the Director or his authorized representative upon request. *(Emission Point: 451.100)* [45CSR§30-5.1.c]
- 6.4.8. **Record of Maintenance of Air Pollution Control Equipment.** For Flare DMSCD01, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures. [45CSR13, R13-2284, 4.4.2]

- 6.4.9. **Record of Malfunctions of Air Pollution Control Equipment.** For Flare DMSCD01, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:
- a. The equipment involved.
 - b. Steps taken to minimize emissions during the event.
 - c. The duration of the event.
 - d. The estimated increase in emissions during the event.

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

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

[45CSR13, R13-2284, 4.4.3]

- 6.4.10. To determine compliance with dimethyl ether production unit limits set forth in 6.1.12, the permittee shall keep records of the hours of operation and production units. This information shall be recorded in APPENDIX A of this permit and shall be kept on site for a period of five years. Such records shall be certified by a “Responsible Official” and made available to the Director or his duly authorized representative upon request. [45CSR13, R13-2284, 4.4.4]

6.5. Reporting Requirements

- 6.5.1. The permittee shall submit Periodic Reports as described in 40 C.F.R. §63.152(c). [45CSR34; 40 C.F.R. §§63.152(a)(4) and 63.152(c); 45CSR13, R13-2284, 4.1.9]
- 6.5.2. The permittee shall submit reports of start-up, shutdown, and malfunction required by 40 C.F.R. §63.10(d)(5). The start-up, shutdown and malfunction reports may be submitted on the same schedule as the Periodic Reports required under 40 C.F.R. §63.152(c). [45CSR34; 40 C.F.R. §§63.152(a)(5) and 63.152(d)(1); 45CSR13, R13-2284, 4.1.9]
- 6.5.3. **Group 1 Process Vents.** If any subsequent TRE determinations or performance tests are conducted after submittal of the Notification of Compliance Status on September 15, 1997, the data in 6.4.2.1.a through 6.4.2.1.c shall be reported in the next Periodic Report as specified in 40 C.F.R. §63.152(c). (*Emission Units: DME010, DME041, DME042, DME040, DME034, DME035, and DME033*) [45CSR34; 40 C.F.R. §63.117(a)(3); 45CSR13, R13-2284, 4.1.9]
- 6.5.4. **Group 1 Process Vents.** The permittee shall submit to the Administrator Periodic Reports of the following recorded information according to the schedule in 40 C.F.R. §63.152(c). [45CSR34; 40 C.F.R. §§63.118(f), 63.152(a), 63.152(a)(4), and 63.152(c); 45CSR13, R13-2284, 4.1.9]

- 6.5.4.1. For Group 1 points, reports of the duration of periods when monitoring data is not collected for each excursion caused by insufficient monitoring data as defined in 40 C.F.R. §63.152(c)(2)(ii)(A). [45CSR34; 40 C.F.R. §63.118(f)(2); 45CSR13, R13-2284, 4.1.9]
- 6.5.4.2. Reports of the times and durations of all periods recorded under 6.4.1.3 when the gas stream is diverted to the atmosphere through a bypass line. [45CSR34; 40 C.F.R. §63.118(f)(3); 45CSR13, R13-2284, 4.1.9]
- 6.5.4.3. Reports of the times and durations of all periods recorded under 6.4.1.2 in which all pilot flames of a flare were absent. [45CSR34; 40 C.F.R. §63.118(f)(5); 45CSR13, R13-2284, 4.1.9]

(Emission Units: DME010, DME041, DME042, DME040, DME034, DME035, and DME033)

- 6.5.5. **Group 1 Process Wastewater Streams.** The owner or operator shall submit as part of the next Periodic Report required by 40 C.F.R. §63.152(c), the monitoring results for each operating day during which the column operating pressure and column bottoms temperature was outside the range established in 6.2.3. (*refiner column and condenser*) [45CSR34; 40 C.F.R. §63.146(d)(3); 45CSR13, R13-2284, 4.1.9]
- 6.5.6. **40 C.F.R. 63, Subpart H Reporting Requirements for Equipment Leaks.** The permittee shall comply with all applicable reporting requirements of 40 C.F.R. 63, Subpart H – “National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks” as specified in 40 C.F.R. §63.182 (Reporting requirements). [45CSR34; 40 C.F.R. 63, Subpart H; 40 C.F.R. §63.182; 45CSR13, R13-2284, 4.1.10]
- 6.5.7. **45CSR§21-37 Reporting Requirements for Equipment Leaks.** The permittee shall comply with all applicable reporting requirements of 45CSR§21-37 – “Leaks from Synthetic Organic Chemical, Polymer, and Resin Manufacturing Equipment” as specified in 45CSR§§21-37.11 and 5.2. To the extent that implementation of the requirements of 40 C.F.R. 60, 40 C.F.R. 61, or 40 C.F.R. 63 results in monitoring and repair, consistent with 45CSR§21-37, of all components in VOC service in any synthetic organic chemical, polymer, or resin manufacturing process unit, compliance with these federally enforceable standards will satisfy the requirements of 45CSR§21-37. [45CSR§§21-37.1.c, 37.11, and 5.2 (State-Enforceable only); CO-R21-97-31, III.2 (State-Enforceable only); 45CSR13, R13-2284, 4.1.7]

6.6. Compliance Plan

- 6.6.1. None

7.0 Dimethyl Sulfate (DMS)

7.1 Limitations and Standards

- 7.1.1. **Group 1 Process Vents.** The permittee shall reduce emissions of organic HAP from Group 1 process vents using a flare. The flare shall comply with the requirements of 40 C.F.R. §63.11(b). (*Emission Units: DMS010 and DMS008*) [45CSR34; 40 C.F.R. §§63.113(a), 63.113(a)(1), and 63.113(a)(1)(i)]
- 7.1.2. **Group 2 Process Vents with a TRE index value greater than 4.0.** The owner or operator of a Group 2 process vent with a TRE index value greater than 4.0 shall maintain a TRE index value greater than 4.0. (*Emission Unit: DMS017*) [45CSR34; 40 C.F.R. §63.113(e)]
- 7.1.3. **Group 2 Storage Vessels.** For each Group 2 storage vessel, the owner or operator shall comply with the recordkeeping requirements in 7.4.5. (*Emission Units: DMS021, DMS022, DMS023, and DMS024*) [45CSR34; 40 C.F.R. §63.119(a)(3)]
- 7.1.4. **Group 1 Process Wastewater Stream.** The DMS wastewater stream that is Group 1 is the purge stream from refining (kettle and condenser). This stream is sent off site for disposal in accordance with 40 C.F.R. §63.132(g). [45CSR34; 40 C.F.R. §63.132(g)]
- 7.1.5. **Group 2 Process Wastewater Streams.** For wastewater streams that are Group 2 for table 9 compounds, the owner or operator shall comply with the recordkeeping requirements specified in 7.4.6. (*the vent system knock-out pot discharge which flows to the waste collection tank*) [45CSR34; 40 C.F.R. §63.132(a)(3)]
- 7.1.6. **Maintenance Wastewater.** Each owner or operator of a source subject to 40 C.F.R. 63, Subpart F shall comply with the requirements of 7.1.6.1 through 7.1.6.3 for maintenance wastewaters containing those organic HAP's listed in table 9 of 40 C.F.R. 63, Subpart G. [45CSR34; 40 C.F.R. §63.105(a)]
- 7.1.6.1. The owner or operator shall prepare a description of maintenance procedures for management of wastewaters generated from the emptying and purging of equipment in the process during temporary shutdowns for inspections, maintenance, and repair (i.e., a maintenance-turn-around) and during periods which are not shutdowns (i.e., routine maintenance). The descriptions shall: [45CSR34; 40 C.F.R. §63.105(b)]
- a. Specify the process equipment or maintenance tasks that are anticipated to create wastewater during maintenance activities. [45CSR34; 40 C.F.R. §63.105(b)(1)]
 - b. Specify the procedures that will be followed to properly manage the wastewater and control organic HAP emissions to the atmosphere; and [45CSR34; 40 C.F.R. §63.105(b)(2)]
 - c. Specify the procedures to be followed when clearing materials from process equipment. [45CSR34; 40 C.F.R. §63.105(b)(3)]
- 7.1.6.2. The owner or operator shall modify and update the information required by 7.1.6.1 as needed following each maintenance procedure based on the actions taken and the wastewaters generated in the preceding maintenance procedure. [45CSR34; 40 C.F.R. §63.105(c)]
- 7.1.6.3. The owner or operator shall implement the procedures described in 7.1.6.1 and 7.1.6.2 as part of the start-up, shutdown, and malfunction plan required under 40 C.F.R. §63.6(e)(3). [45CSR34; 40 C.F.R. §63.105(d)]

- 7.1.7. **40 C.F.R. 63, Subpart H Requirements for Equipment Leaks.** The permittee shall comply with all applicable standards of 40 C.F.R. 63, Subpart H – “National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks.” The pertinent equipment leak standards include 40 C.F.R. §§63.162 (Standards: General), 63.166 (Standards: Sampling connection systems), and 63.169 (Standards: Pumps, valves, connectors, and agitators in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service. **[45CSR34; 40 C.F.R. 63, Subpart H; 40 C.F.R. §§63.162, 63.166, and 63.169]**
- 7.1.8. **45CSR§21-37 Requirements for Equipment Leaks.** The permittee shall comply with all applicable requirements of 45CSR§21-37 – “Leaks from Synthetic Organic Chemical, Polymer, and Resin Manufacturing Equipment.” The pertinent equipment leak standards include Sections 45CSR§§21-37.3 through 37.8. To the extent that implementation of the requirements of 40 C.F.R. 60, 40 C.F.R. 61, or 40 C.F.R. 63 results in monitoring and repair, consistent with 45CSR§21-37, of all components in VOC service in any synthetic organic chemical, polymer, or resin manufacturing process unit, compliance with these federally enforceable standards will satisfy the requirements of 45CSR§21-37. **[45CSR§§21-37.3 through 37.8 and 37.1.c (State-Enforceable only); CO-R21-97-31, III.2 (State-Enforceable only)]**
- 7.1.9. Flare DMSCD01 (Emission Point 451.100) is shared with the Dimethyl Ether (DME) Process Unit. Limitations and Standards for flare DMSCD01 are provided in 6.1.9, 6.1.10, and 6.1.11.
- 7.1.10. No person shall cause suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in 7.1.11. (*Emission Points: 451.002 and 451.003*) **[45CSR§7-3.1]**
- 7.1.11. The provisions of 7.1.10 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period. (*Emission Points: 451.002 and 451.003*) **[45CSR§7-3.2]**
- 7.1.12. Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity given in the table below.

Emission Point	Emission Source	Limit
451.002	Tank DMS001 (SO ₃ Tank)	Sulfuric Acid Mist – 35 mg/dscm
451.003	Tank DMS002 (Sulfuric Acid Tank)	Sulfuric Acid Mist - 35 mg/dscm

(*Emission Points: 451.002 and 451.003*) **[45CSR§7-4.2 and Table 45-7B]**

- 7.1.13. The permittee shall comply with all applicable requirements of 6.1.19 from CO-R21-97-31 for Dimethyl Sulfate (DMS).

7.2. Monitoring Requirements

- 7.2.1. **Group 1 Process Vents.** To demonstrate compliance with 7.1.1 for Group 1 process vents using a flare, a device (including but not limited to a thermocouple, ultra-violet beam sensor, or infrared sensor) capable of continuously detecting the presence of a pilot flame shall be installed, calibrated, maintained, and operated according to manufacturer’s specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately. (*Emission Units: DMS010 and DMS008*) **[45CSR34; 40 C.F.R. §§63.114(a) and 63.114(a)(2)]**

7.2.2. **Group 1 Process Vents.** The permittee shall comply with 7.2.2.1 for any bypass line between the origin of the gas stream (i.e., at an air oxidation reactor, distillation unit, or reactor as identified in 40 C.F.R. §63.107(b)) and the point where the gas stream reaches the process vent, as described in 40 C.F.R. §63.107, that could divert the gas stream directly to the atmosphere. Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes are not subject to this requirement. [45CSR34; 40 C.F.R. §63.114(d)]

7.2.2.1. Properly install, maintain and operate a flow indicator that takes a reading at least once every 15 minutes. Records shall be generated as specified in 7.4.1.3. The flow indicator shall be installed at the entrance to any by-pass line that could divert the gas stream to the atmosphere. [45CSR34; 40 C.F.R. §63.114(d)(1)]

(Emission Units: DMS010 and DMS008)

7.2.3. Flare DMSCD01 (Emission Point 451.100) is shared with the Dimethyl Ether (DME) Process Unit. Monitoring Requirements for flare DMSCD01 are provided in 6.2.4.

7.2.4. For the purpose of determining compliance with the opacity limits set forth in Sections 7.1.10 and 7.1.11 for Tanks DMS001 and DMS002 (Emission Points 451.002 and 451.003), the permittee shall conduct visual emissions monitoring at a frequency of at least once per month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed during periods of normal operation of emission sources that vent from the referenced emission points for a sufficient time interval to determine if there is a visible emission. If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct a visual emission evaluation per 45CSR7A within three (3) days of the first identification of visible emissions. A 45CSR7A evaluation shall not be required if the visible emission condition is corrected within seventy-two (72) hours after the visible emission and the sources are operating at normal conditions. *(Emission Points: 451.002 and 451.003)* [45CSR§30-5.1.c]

7.3. Testing Requirements

7.3.1. **40 C.F.R. 63, Subpart H Testing Requirements for Equipment Leaks.** The permittee shall comply with all applicable test methods and procedures of 40 C.F.R. 63, Subpart H – “National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks” as specified in 40 C.F.R. §63.180 (Test methods and procedures). [45CSR34; 40 C.F.R. 63, Subpart H; 40 C.F.R. §63.180]

7.3.2. **45CSR§21-37 Testing Requirements for Equipment Leaks.** The permittee shall comply with all applicable test methods and procedures of 45CSR§21-37 – “Leaks from Synthetic Organic Chemical, Polymer, and Resin Manufacturing Equipment” as specified in 45CSR§21-37.9. To the extent that implementation of the requirements of 40 C.F.R. 60, 40 C.F.R. 61, or 40 C.F.R. 63 results in monitoring and repair, consistent with 45CSR§21-37, of all components in VOC service in any synthetic organic chemical, polymer, or resin manufacturing process unit, compliance with these federally enforceable standards will satisfy the requirements of 45CSR§21-37. [45CSR§§21-37.1.c and 37.9 (State-Enforceable only); CO-R21-97-31, III.2 (State-Enforceable only)]

7.3.3. The permittee shall comply with the testing requirements of 45CSR§21-41 specified in 6.3.3.

7.3.4. Flare DMSCD01 (Emission Point 451.100) is shared with the Dimethyl Ether (DME) Process Unit. Testing Requirements for flare DMSCD01 are provided in 6.3.4.

7.4. Recordkeeping Requirements

7.4.1. **Group 1 Process Vents.** To demonstrate compliance with 7.1.1 for Group 1 process vents using a flare, the permittee shall keep the following records up-to-date and readily accessible: **[45CSR34; 40 C.F.R. §63.118(a)]**

7.4.1.1. Continuous records of the equipment operating parameters specified to be monitored under 7.2.1 and listed in table 3 of 40 C.F.R. 63, Subpart G. For flares, hourly records and records of pilot flame outages specified in table 3 of 40 C.F.R. 63, Subpart G shall be maintained in place of continuous records.

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

Control device	Parameters to be monitored	Recordkeeping and reporting requirements for monitored parameters
Flare	Presence of a flame at the pilot light [63.114(a)(2)]	1. Hourly records of whether the monitor was continuously operating and whether the pilot flame was continuously present during each hour.
		2. Record and report the presence of a flame at the pilot light over the full period of the compliance determination – NCS.
		3. Record the times and durations of all periods when all pilot flames are absent or the monitor is not operating.
		4. Report the times and durations of all periods when all pilot flames of a flare are absent – PR.
All control devices	Presence of flow diverted to the atmosphere from the control device [63.114(d)(1)]	1. Hourly records of whether the flow indicator was operating and whether diversion was detected at any time during each hour.
		2. Record and report the times and durations of all periods when the vent stream is diverted through a bypass line or the monitor is not operating – PR.

NCS = Notification of Compliance Status as described in 40 C.F.R. §63.152 and submitted on September 15, 1997.
 PR = Periodic Reports described in 40 C.F.R. §63.152.

[45CSR34; 40 C.F.R. §63.118(a)(1) and Table 3 of 40 C.F.R. 63, Subpart G]

7.4.1.2. Records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in 40 C.F.R. §63.152(f). For flares, records of the times and duration of all periods during which all pilot flames are absent shall be kept rather than daily averages. **[45CSR34; 40 C.F.R. §63.118(a)(2)]**

7.4.1.3. Hourly records of whether the flow indicator specified under 7.2.2.1 was operating and whether a diversion was detected at any time during the hour, as well as records of the times and durations of all periods when the gas stream is diverted to the atmosphere or the monitor is not operating. **[45CSR34; 40 C.F.R. §63.118(a)(3)]**

(Emission Units: DMS010 and DMS008)

7.4.2. **Group 1 Process Vents.** Each owner or operator subject to the control provisions for Group 1 process vents in 7.1.1 shall: [45CSR34; 40 C.F.R. §63.117(a)]

7.4.2.1. Keep an up-to-date, readily accessible record of the data specified in 7.4.2.1.a through 7.4.2.1.c submitted as part of the Notification of Compliance Status report dated September 15, 1997. [45CSR34; 40 C.F.R. §63.117(a)(1)]

a. Flare design (i.e., steam-assisted, air-assisted, or non-assisted); [45CSR34; 40 C.F.R. §63.117(a)(5)(i)]

b. All visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required by 40 C.F.R. §63.116(a). [45CSR34; 40 C.F.R. §63.117(a)(5)(ii)]

c. All periods during the compliance determination when the pilot flame is absent. [45CSR34; 40 C.F.R. §63.117(a)(5)(iii)]

(Emission Units: DMS010 and DMS008)

7.4.3. **Group 2 Process Vents with a TRE index value greater than 4.0.** The owner or operator of a Group 2 process vent with a TRE index value greater than 4.0 as specified in 7.1.2, shall maintain records of measurements, engineering assessments, and calculations performed to determine the TRE index value of the vent stream, submitted as part of the Notification of Compliance Status report dated September 15, 1997. Documentation of engineering assessments shall include all data, assumptions, and procedures used for the engineering assessments, as specified in 40 C.F.R. §63.115(d)(1). *(Emission Unit: DMS017)* [45CSR34; 40 C.F.R. §63.117(b)]

7.4.4. **Group 2 Process Vents with a TRE index value greater than 4.0.** Each owner or operator subject to the provisions of 40 C.F.R. 63, Subpart G and who elects to demonstrate compliance with the TRE index value greater than 4.0 under 7.1.2 shall keep up-to-date, readily accessible records of: [45CSR34; 40 C.F.R. §63.118(c)]

7.4.4.1. Any process changes as defined in 40 C.F.R. §63.115(e); [45CSR34; 40 C.F.R. §63.118(c)(1)]

7.4.4.2. Any recalculation of the TRE index value pursuant to 40 C.F.R. §63.115(e). [45CSR34; 40 C.F.R. §63.118(c)(2)]

(Emission Unit: DMS017)

7.4.5. **Group 2 Storage Vessels.** For each Group 2 storage vessel, the permittee shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 2 status and is in operation. *(Emission Units: DMS021, DMS022, DMS023, and DMS024)* [45CSR34; 40 C.F.R. §63.123(a)]

7.4.6. **Group 2 Process Wastewater Streams.** The owner or operator shall keep in a readily accessible location the records specified in 7.4.6.1 through 7.4.6.4. [45CSR34; 40 C.F.R. §63.147(b)(8)]

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

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

- 7.4.6.3. For existing sources, concentration of table 9 compound(s) in parts per million, by weight. Include documentation of the methodology used to determine the concentration. **[45CSR34; 40 C.F.R. §63.147(b)(8)(iii)]**
- 7.4.6.4. Flow rate in liter per minute. **[45CSR34; 40 C.F.R. §63.147(b)(8)(iv)]**
(the vent system knock-out pot which discharges to the waste collection tank)
- 7.4.7. **Maintenance Wastewater.** The owner or operator shall maintain a record of the information required by 7.1.6.1 and 7.1.6.2 as part of the start-up, shutdown, and malfunction plan required under 40 C.F.R. §63.6(e)(3). **[45CSR34; 40 C.F.R. §63.105(e)]**
- 7.4.8. **40 C.F.R. 63, Subpart H Recordkeeping Requirements for Equipment Leaks.** The permittee shall comply with all applicable recordkeeping requirements of 40 C.F.R. 63, Subpart H – “National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks” as specified in 40 C.F.R. §63.181 (Recordkeeping requirements.). **[45CSR34; 40 C.F.R. 63, Subpart H; 40 C.F.R. §63.181]**
- 7.4.9. **45CSR§21-37 Recordkeeping Requirements for Equipment Leaks.** The permittee shall comply with all applicable recordkeeping requirements of 45CSR§21-37 – “Leaks from Synthetic Organic Chemical, Polymer, and Resin Manufacturing Equipment” as specified in 45CSR§21-37.10, with the exception that all records shall be maintained for a period of five (5) years instead of three (3) years. To the extent that implementation of the requirements of 40 C.F.R. 60, 40 C.F.R. 61, or 40 C.F.R. 63 results in monitoring and repair, consistent with 45CSR§21-37, of all components in VOC service in any synthetic organic chemical, polymer, or resin manufacturing process unit, compliance with these federally enforceable standards will satisfy the requirements of 45CSR§21-37. **[45CSR§§21-37.1.c and 37.10 (State-Enforceable only); 45CSR§30-5.1.c; CO-R21-97-31, III.2 (State-Enforceable only)]**
- 7.4.10. Flare DMSCD01 (Emission Point 451.100) is shared with the Dimethyl Ether (DME) Process Unit. Recordkeeping Requirements for flare DMSCD01 are provided in 6.4.7, 6.4.8, and 6.4.9.
- 7.4.11. The permittee shall maintain records of all monitoring data required by Section 7.2.4 of this permit, documenting the date and time of each visible emission check, the emission point or equipment identification number, the name or means of identification of the responsible observer, the results of the check, and, if necessary, all corrective actions taken. Should a visible emission observation be required to be performed per the requirements specified in 45CSR7A, the data records of each observation shall be maintained per the requirements of 45CSR7A. For an emission unit out of service during the normal monthly evaluation, the record of observation may note “out of service” (OOS) or equivalent. These records shall be maintained on site for a period of five years and shall be made available to the Director or his authorized representative upon request. *(Emission Points: 451.002 and 451.003)* **[45CSR§30-5.1.c]**
- 7.4.12. In order to demonstrate compliance with the requirements of 7.1.12, the permittee shall maintain monthly records of tank throughput and emissions (mg/m³) for Tanks DMS001 and DMS002. These records shall be maintained for a period of at least five (5) years in accordance with 3.4.2. **[45CSR§30-5.1.c.]**

7.5. Reporting Requirements

- 7.5.1. The permittee shall submit Periodic Reports as described in 40 C.F.R. §63.152(c). **[45CSR34; 40 C.F.R. §§63.152(a)(4) and 63.152(c)]**
- 7.5.2. The permittee shall submit reports of start-up, shutdown, and malfunction required by 40 C.F.R. §63.10(d)(5). The start-up, shutdown and malfunction reports may be submitted on the same schedule as the Periodic Reports required under 40 C.F.R. §63.152(c). **[45CSR34; 40 C.F.R. §§63.152(a)(5) and 63.152(d)(1)]**

7.5.3. **Group 1 Process Vents.** If any subsequent TRE determinations or performance tests are conducted after submittal of the Notification of Compliance Status on September 15, 1997, the data in 7.4.2.1.a through 7.4.2.1.c shall be reported in the next Periodic Report as specified in 40 C.F.R. §63.152(c). (*Emission Units: DMS010 and DMS008*) [45CSR34; 40 C.F.R. §63.117(a)(3)]

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

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

7.5.4.2. Reports of the times and durations of all periods recorded under 7.4.1.3 when the gas stream is diverted to the atmosphere through a bypass line. [45CSR34; 40 C.F.R. §63.118(f)(3)]

7.5.4.3. Reports of the times and durations of all periods recorded under 7.4.1.2 in which all pilot flames of a flare were absent. [45CSR34; 40 C.F.R. §63.118(f)(5)]

(*Emission Units: DMS010 and DMS008*)

7.5.5. **Group 2 Process Vents with a TRE index value greater than 4.0.** Whenever a process change, as defined in 40 C.F.R. §63.115(e), is made that causes a Group 2 process vent to become a Group 1 process vent, the owner or operator shall submit a report within 180 calendar days after the process change as specified in 40 C.F.R. §63.151(j). The report shall include: [45CSR34; 40 C.F.R. §63.118(g)]

7.5.5.1. A description of the process change; [45CSR34; 40 C.F.R. §63.118(g)(1)]

7.5.5.2. The results of the recalculation of the flow rate, organic HAP concentration, and TRE index value required under 40 C.F.R. §63.115(e) and recorded under 7.4.4; and [45CSR34; 40 C.F.R. §63.118(g)(2)]

7.5.5.3. A statement that the owner or operator will comply with the provisions of 40 C.F.R. §63.113 for Group 1 process vents by the dates specified in 40 C.F.R. 63, Subpart F. [45CSR34; 40 C.F.R. §63.118(g)(3)]

(*Emission Unit: DMS017*)

7.5.6. **Group 2 Process Vents with a TRE index value greater than 4.0.** Whenever a process change, as defined in 40 C.F.R. §63.115(e), is made that causes a Group 2 process vent with a TRE greater than 4.0 to become a Group 2 process vent with a TRE less than 4.0, the owner or operator shall submit a report within 180 calendar days after the process change. The report may be submitted as part of the next periodic report. The report shall include: [45CSR34; 40 C.F.R. §63.118(h)]

7.5.6.1. A description of the process change. [45CSR34; 40 C.F.R. §63.118(h)(1)]

7.5.6.2. The results of the recalculation of the TRE index value required under 40 C.F.R. §63.115(e) and recorded under 7.4.4, and [45CSR34; 40 C.F.R. §63.118(h)(2)]

7.5.6.3. A statement that the owner or operator will comply with the requirements specified in 40 C.F.R. §63.113(d). [45CSR34; 40 C.F.R. §63.118(h)(3)]

(*Emission Unit: DMS017*)

- 7.5.7. **Group 2 Process Vents with a TRE index value greater than 4.0.** The owner or operator is not required to submit a report of a process change if one of the conditions listed in 7.5.7.1 through 7.5.7.4 is met. **[45CSR34; 40 C.F.R. §60.118(k)]**
- 7.5.7.1. The process change does not meet the definition of a process change in 40 C.F.R. §63.115(e), or **[45CSR34; 40 C.F.R. §63.118(k)(1)]**
- 7.5.7.2. The vent stream flow rate is recalculated according to 40 C.F.R. §63.115(e) and the recalculated value is less than 0.005 standard cubic meter per minute, or **[45CSR34; 40 C.F.R. §63.118(k)(2)]**
- 7.5.7.3. The organic HAP concentration of the vent stream is recalculated according to 40 C.F.R. §63.115(e) and the recalculated value is less than 50 parts per million by volume, or **[45CSR34; 40 C.F.R. §63.118(k)(3)]**
- 7.5.7.4. The TRE index value is recalculated according to 40 C.F.R. §63.115(e) and the recalculated value is greater than 4.0. **[45CSR34; 40 C.F.R. §63.118(k)(4)]**

(Emission Unit: DMS017)

- 7.5.8. **40 C.F.R. 63, Subpart H Reporting Requirements for Equipment Leaks.** The permittee shall comply with all applicable reporting requirements of 40 C.F.R. 63, Subpart H – “National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks” as specified in 40 C.F.R. §63.182 (Reporting requirements.). **[45CSR34; 40 C.F.R. 63, Subpart H; 40 C.F.R. §63.182]**
- 7.5.9. **45CSR§21-37 Reporting Requirements for Equipment Leaks.** The permittee shall comply with all applicable reporting requirements of 45CSR§21-37 – “Leaks from Synthetic Organic Chemical, Polymer, and Resin Manufacturing Equipment” as specified in 45CSR§§21-37.11 and 5.2. To the extent that implementation of the requirements of 40 C.F.R. 60, 40 C.F.R. 61, or 40 C.F.R. 63 results in monitoring and repair, consistent with 45CSR§21-37, of all components in VOC service in any synthetic organic chemical, polymer, or resin manufacturing process unit, compliance with these federally enforceable standards will satisfy the requirements of 45CSR§21-37. **[45CSR§§21-37.1.c, 37.11, and 5.2 (State-Enforceable only); CO-R21-97-31, III.2 (State-Enforceable only)]**

7.6. Compliance Plan

- 7.6.1. None.

8.0 Carbon Monoxide Flare

8.1 Limitations and Standards

8.1.1. Emissions from the flare (209.001) shall not exceed the following:

Pollutant	lb/hr	tpy
CO	9.8	4.2
NO _x	0.01	0.05
VOC	0.01	0.01
SO ₂	0	0
PM	0.01	0.01

Compliance with the hourly PM emission limit for flare (209.001) shall demonstrate compliance with the less stringent hourly PM emission limit from 45CSR§6-4.1. [45CSR13, R13-0914, 4.1.1 and 4.1.4; 45CSR§6-4.1]

8.1.2. The amount of CO sent to the flare (209.001) shall not exceed 9,749 pounds per hour nor 4,188.3 tons per year. [45CSR13, R13-0914, 4.1.2]

8.1.3. No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater. [45CSR13, R13-0914, 4.1.5; 45CSR§6-4.3]

8.1.4. The provisions of 8.1.3 shall not apply to smoke which is less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per start-up. [45CSR§6-4.4]

8.1.5. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate flare (209.001) and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary. [45CSR13, R13-0914, 4.1.6]

8.2 Monitoring Requirements

8.2.1. For the purposes of determining compliance with the conditions of 8.1.1 and 8.1.2, the permittee shall monitor the amount of CO sent to the flare each day and the number of hours each day that CO was sent to the flare. [45CSR13, R13-0914, 4.2.1; 45CSR§30-5.1.c]

8.2.2. For the purpose of determining compliance with the opacity limits set forth in Sections 8.1.3 and 8.1.4 for flare (209.001), the permittee shall conduct visual emissions monitoring at a frequency of at least once per month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed during periods of normal operation of emission sources that vent from the referenced emission points for a sufficient time interval to determine if there is a visible emission. If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct a visual emission evaluation per 40 C.F.R. 60, Appendix A, Method 9 within three (3) days of the first identification of visible emissions. A Method 9 evaluation shall not be required if the visible emission condition is corrected within seventy-two (72) hours after the visible emission and the sources are operating at normal conditions. [45CSR§30-5.1.c]

8.3. Testing Requirements

- 8.3.1. None.

8.4. Recordkeeping Requirements

- 8.4.1. **Record of Maintenance of Air Pollution Control Equipment.** For flare (209.001), the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures. [45CSR13, R13-0914, 4.4.2]
- 8.4.2. **Record of Malfunctions of Air Pollution Control Equipment.** For flare (209.001), the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:
- a. The equipment involved.
 - b. Steps taken to minimize emissions during the event.
 - c. The duration of the event.
 - d. The estimated increase in emissions during the event.

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

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

[45CSR13, R13-0914, 4.4.3]

- 8.4.3. For the purposes of determining compliance with conditions 8.1.1 and 8.1.2 of this permit, the permittee shall maintain certified daily records of the total amount of CO sent to the flare and the number of hours each day that CO was sent to the flare. [45CSR13, R13-0914, 4.4.4; 45CSR§30-5.1.c]
- 8.4.4. The permittee shall maintain records of all monitoring data required by 8.2.2, 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. Should a visible emission observation be required to be performed per the requirements specified in 40 C.F.R. 60, Appendix A, Method 9, the data records of each observation shall be maintained per the requirements of 40 C.F.R. 60, Appendix A, Method 9. For an emission unit out of service during the normal monthly evaluation, the record of observation may note “out of service” (OOS) or equivalent. These records shall be maintained in accordance with 3.4.2. [45CSR§30-5.1.c]

8.5. Reporting Requirements

- 8.5.1. None.

8.6. Compliance Plan

8.6.1. None.

APPENDIX A – R13-2284 Recordkeeping Form

APPENDIX A

Dimethyl Ether Production
 The Chemours Company FC, LLC
 Belle Plant
 R13-2284A
 Plant ID No.: 03900001

Accounting Month/Year	Production Units	Hours of Operation	12-Month Total ¹

¹This total should reflect the summation of the total production units for the past 12 accounting months

**APPENDIX B – Consent Order CO-R21-97-31
ATTACHMENTS A AND B**

ATTACHMENT A

Process Area Description and Identification Number	Name of Process Equipment Vented to Control Device and Equipment Identification Number	Maximum Theoretical Emissions (MTE) of the Source (lbs/hr)	Emission Point Identification Number	Control Device Identification Number	Control Device Description	Efficiency of Control Device	Maximum Allowable Hours of Operation (hrs/yr)	Maximum Allowable VOC Emissions	
								lbs/hr	tons/yr
DME/DMS (441)/(451)	Crude DME Receiver (020)	80.4	451.100	451.100	FL	98%	8,760	25.2 ¹	41.61 ¹
	DME Refining Condenser (030)	26.0	451.100	451.100	FL	98%	8,760		
	MRC Condenser (031)	52.1	451.100	451.100	FL	98%	8,760		
	DME Storage & Loading	8.53	451.100	451.100	FL	98%	8,760		
	DMS Crude Hold Up Tank (026)	182.6	451.100	451.100	FL	98%	8,760		

¹R13-2284, Conditions 4.1.3, 4.15, and 4.1.6.

ATTACHMENT B

ROUTINE/NORMAL OPERATING & MAINTENANCE SCENARIOS RESULTING IN EXCESS EMISSIONS*

Process Area Description and Identification Number	Emission Point Identification Number	Description of Excess Emission Scenario SU – Start-up SD – Shutdown M – Maintenance (Describe Activity)	Description of Controls and Measures used to Minimize VOC Emissions (During each Scenario)	Duration of Excess Emission Scenario (Hours)	Typical/Maximum Number of Events per Year	Average/Peak VOC Emissions per Event (Pounds per Hour)

*Do not include malfunction scenarios