

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

Joe Manchin III  
Governor

Randy C. Huffman  
Cabinet Secretary

# Permit to Operate



*Pursuant to  
**Title V**  
of the Clean Air Act*

*Issued to:*  
**Union Carbide Corporation**  
**Institute Plant**  
**Acetone Derivatives/TONE<sup>®</sup>-Polyol (Group 2 of 5)**  
**R30-03900005-2006**

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*John A. Benedict*  
*Director*

*Issued: August 8, 2006 • Effective: August 22, 2006*  
*Expiration: August 8, 2011 • Renewal Application Due: February 8, 2011*

Permit Number: **R30-03900005-2006**  
Permittee: **Union Carbide Corporation**  
Facility Name: **Institute Plant**  
Business Unit: **Acetone Derivatives/TONE<sup>®</sup> Polyol (Group 2 of 5)**  
Mailing Address: **P. O. Box 8361, South Charleston, WV 25303**

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

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Facility Location:	Institute, Kanawha County, West Virginia
Mailing Address:	P. O. Box 8361, South Charleston, WV 25303
Telephone Number:	(304) 747-7000
Type of Business Entity:	Corporation
Facility Description:	Acetone Derivatives and TONE <sup>®</sup> Polyol Plants
SIC Codes:	2869
UTM Coordinates:	432.00 km Easting • 4,284.31 km Northing • Zone 17

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

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

## Table of Contents

<b>1.0.</b>	<b>Emission Units .....</b>	<b>4</b>
<b>2.0.</b>	<b>General Conditions.....</b>	<b>10</b>
2.1.	Definitions .....	10
2.2.	Acronyms .....	10
2.3.	Permit Expiration and Renewal .....	11
2.4.	Permit Actions .....	11
2.5.	Reopening for Cause.....	11
2.6.	Administrative Permit Amendments .....	12
2.7.	Minor Permit Modifications .....	12
2.8.	Significant Permit Modification.....	12
2.9.	Emissions Trading .....	12
2.10.	Off-Permit Changes .....	12
2.11.	Operational Flexibility .....	13
2.12.	Reasonably Anticipated Operating Scenarios .....	14
2.13.	Duty to Comply.....	14
2.14.	Inspection and Entry .....	14
2.15.	Schedule of Compliance .....	15
2.16.	Need to Halt or Reduce Activity not a Defense .....	15
2.17.	Emergency .....	15
2.18.	Federally-Enforceable Requirements .....	16
2.19.	Duty to Provide Information .....	16
2.20.	Duty to Supplement and Correct Information.....	16
2.21.	Permit Shield .....	17
2.22.	Credible Evidence.....	17
2.23.	Severability .....	17
2.24.	Property Rights .....	17
2.25.	Acid Deposition Control .....	17
<b>3.0.</b>	<b>Facility-Wide Requirements .....</b>	<b>19</b>
3.1.	Limitations and Standards.....	19
3.2.	Monitoring Requirements .....	20
3.3.	Testing Requirements .....	20
3.4.	Recordkeeping Requirements .....	21
3.5.	Reporting Requirements .....	21
3.6.	Compliance Plan .....	24
3.7.	Permit Shield .....	24
<b>4.0.</b>	<b>Acetone Derivatives .....</b>	<b>25</b>
4.1.	Limitations and Standards.....	25
4.2.	Monitoring Requirements .....	29
4.3.	Testing Requirements .....	30
4.4.	Recordkeeping Requirements .....	30
4.5.	Reporting Requirements .....	32
4.6.	Compliance Plan .....	35

<b>5.0. TONE<sup>®</sup> Polyol.....</b>	<b>36</b>
5.1. Limitations and Standards.....	36
5.2. Monitoring Requirements .....	37
5.3. Testing Requirements .....	37
5.4. Recordkeeping Requirements .....	37
5.5. Reporting Requirements .....	38
5.6. Compliance Plan .....	38

<b>APPENDIX A.....</b>	<b>Consent Order CO-R21-97-41 ATTACHMENTS A and B</b>
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## 1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Control Device
<i>Acetone Derivatives Plant</i>				
T211	035RR	Tank 211	1942	None
T212	035RR	Tank 212	1942	None
T213	035RR	Tank 213	1942	None
T214	035RR	Tank 214	1942	None
T215	035RR	Tank 215	1942	None
T216	035RR	Tank 216	1942	None
T217	035D	Tank 217	1942	None
T218	035D	Tank 218	1942	None
T219	035D	Tank 219	1942	None
T220	045V	Tank 220	1942	V045 Vent Condenser
T221	035B	Tank 221	1942	None
T222	035WW	Tank 222	1942	None
T224	045U	Tank 224	1942	None
T223	No Vent	Tank 223	1942	None
T225	045U	Tank 225	1942	None
T226	035A	Tank 226	1942	None
T227	035D	Tank 227	1942	None
T228	035D	Tank 228	1942	None
T229	045S	Tank 229	1942	None
T230	035C	Tank 230	1942	None
T231	035XX	Tank 231	1942	None
T232	035ZZ	Tank 232	1942	None
T233	035D	Tank 233	1942	None
T234	035D	Tank 234	1942	None
T235	035D	Tank 235	1942	None
T236	035D	Tank 236	1991	None
T237	035D	Tank 237	1942	None
T238	035D	Tank 238	1942	None
T239	035D	Tank 239	1942	None

<b>Emission Unit ID</b>	<b>Emission Point ID</b>	<b>Emission Unit Description</b>	<b>Year Installed</b>	<b>Control Device</b>
T240	035D	Tank 240	1942	None
T242	045C	Tank 242	1942	None
T243	045A	Tank 243	1942	None
T244	045Q	Tank 244	1942	None
T263	035VV	Tank 263	1942	None
T377	037A	Tank 377	1942	None
T378	037A	Tank 378	1942	None
T379	037A	Tank 379	1942	None
T380	037A	Tank 380	1942	None
T901	035BB	Tank 901	1942	None
T902	035CC	Tank 902	1942	None
T903	035DD	Tank 903	1942	None
T904	035EE	Tank 904	1942	None
T905	035FF	Tank 905	1942	None
T910	035GG	Tank 910	1942	None
T920	035HH	Tank 920	1942	None
T921	035H	Tank 921	1942	None
T922	035JJ	Tank 922	1942	None
T923	035KK	Tank 923	1942	None
T924	035LL	Tank 924	1942	None
T930	035MM	Tank 930	1942	None
T931	035UU	Tank 931	1942	None
T933	035NN	Tank 933	1942	None
T935	035PP	Tank 935	1942	None
T936	035QQ	Tank 936	1942	None
T994	035H	Tank 994	1942	None
T995	035I	Tank 995	1942	None
T996	035J	Tank 996	1942	None
T997	045J	Tank 997	1942	None
T998	045I	Tank 998	1942	None
T1006	035E	Tank 1006	1949	None
T1007	035TT	Tank 1007	1949	None

<b>Emission Unit ID</b>	<b>Emission Point ID</b>	<b>Emission Unit Description</b>	<b>Year Installed</b>	<b>Control Device</b>
T1008	035F	Tank 1008	1949	None
T1009	035G	Tank 1009	1949	None
T1016	045T	Tank 1016	1989	None
T1017	045B	Tank 1017	Out of Service	None
T1018	035P	Tank 1018	Out of Service	None
T1019	035Q	Tank 1019	1947	None
T1201	045L	Tank 1201 – operated by Logistics	1949	None
T1203	045W	Tank 1203	1949	None
T1205	035R	Tank 1205	1949	None
T1206	035K	Tank 1206	1962	None
T1207	035L	Tank 1207	1949	None
T1208	045D	Tank 1208	1949	None
T1210	035M	Tank 1210	1949	None
T1211	035N	Tank 1211	1949	None
T1216	035S	Tank 1216	1961	None
T1220	035YY	Tank 1220	1948	None
T1227	045Y	Tank 1227	1952	None
T1228	035T	Tank 1228	1952	None
T1229	035U	Tank 1229	1952	None
T1230	045G	Tank 1230	1952	None
T1231	035V	Tank 1231	1952	None
T1233	035W	Tank 1233	1952	None
T1234	045F	Tank 1234	1955	None
T1235	045X	Tank 1235	1955	None
T1236	045E	Tank 1236	1963	None
T1240	035X	Tank 1240	1956	None
T1241	035Y	Tank 1241	1959	None
T1242	035Z	Tank 1242	1960	None
T1243	035AA	Tank 1243	1960	None
T1245	045K	Tank 1245	1960	None
T032A	032A	Dowtherm Tank #1	1942	None
T032B	032A	Dowtherm Tank #2	1942	None

<b>Emission Unit ID</b>	<b>Emission Point ID</b>	<b>Emission Unit Description</b>	<b>Year Installed</b>	<b>Control Device</b>
S206	030B	Still 206	1990	None
S207	030M	Still 207	1942	None
S208	No Vent	Still 208	1990	None
S209	040A	Still 209	1987	None
S210	030S, 030F	Still 210	1942	S030 210/216 Product Recovery Device J211 211 Condenser Jet
S211	030C	Still 211	1988	None
S212	030J	Still 212	1942	None
S213	030H	Still 213	1944	None
S214	030P	Still 214	1942	None
S216	030S, 030E	Still 216	1942	S030 210/216 Product Recovery Device J216 216 Condenser Jet
S217	030L	Still 217	1942	None
S218	No Vent	Still 218	1996	None
S219	040C, 040E	Still 219	1963	None
S220	040B	Still 220	1987	None
S221	030I	Still 221	Out of Service	None
S251	030K	Still 251	1942	None
S252	040E	Still 252	1942	None
S253	030G	Still 253	1942	None
D030	030D	KET EXT	1944	None
OPT	045V	Oil Pot	1944	V045 Vent Condenser
R045	045R	VFA Pot	1948	None
R201	030A or Header to Powerhouse	Reactor 201 (aka Converter 201)	1942	030A Reactivation Scrubber or Header
R202	030A or Header to Powerhouse	Reactor 202 (aka Converter 202)	1942	030A Reactivation Scrubber or Header

<b>Emission Unit ID</b>	<b>Emission Point ID</b>	<b>Emission Unit Description</b>	<b>Year Installed</b>	<b>Control Device</b>
R203	030A or Header to Powerhouse	Reactor 203 (aka Converter 203)	1942	030A Reactivation Scrubber or Header
R206	030A or Header to Powerhouse	Reactor 206 (aka Converter 206)	1942	030A Reactivation Scrubber or Header
R207	030A or Header to Powerhouse	Reactor 207 (aka Converter 207)	1942	030A Reactivation Scrubber or Header
R208	030A or Header to Powerhouse	Reactor 208 (aka Converter 208)	1942	030A Reactivation Scrubber or Header
R209	030A or Header to Powerhouse	Reactor 209 (aka Converter 209)	1942	030A Reactivation Scrubber or Header
R211	030A or Header to Powerhouse	Reactor 211 (aka Converter 211)	Out of Service	030A Reactivation Scrubber or Header
N030	030N	Atm Pot	1998	None
B032	032B	Dowtherm Furnace	1967	None
S201	Vents to Power House	201 Scrubber	1998	None
F040	040F	TT/TC Scrubber – operated by Logistics	1940s	None
TCL4	L4TC	East Rack Rail Car Loading – operated by Logistics	1940s	None
TTL4	L4TT	East Rack Tank Truck Loading – operated by Logistics	1940s	None
L1B	B1L	Barge Loading - operated by Logistics	1940s	None
DRM	MRD	Drums	NA	None
TTL030	L030TT	In Unit Tank Truck Loading/Unloading	1940s	None
TTL032	L032TT	In Unit Tank Truck Loading/Unloading	1940s	None
<b><i>TONE® Polyol Plant</i></b>				
<del>T5018</del>	<del>116L</del>	<del>Tank 5018</del>	<del>1963</del>	<del>None</del>
<del>T5019</del>	<del>116M</del>	<del>Tank 5019</del>	<del>1963</del>	<del>None</del>
<del>T5020</del>	<del>116K</del>	<del>Tank 5020</del>	<del>1969</del>	<del>None</del>

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Control Device
T5021	116K	Tank 5021	1969	None
T5022	116L/111B	Tank 5022	1969	None/Scrubber B111
T5024	116S	Tank 5024	1963	None
T5030	116R	Tank 5030	1963	None
T5031	116N	Tank 5031	1963	None
T5060T	116G	Tank 5060 Top Compartment	1987	None
T5060B	116H	Tank 5060B Bottom Compartment	1987	None
T5061T	116E	Tank 5061T Top Compartment	1987	None
T5061B	116F	Tank 5061B Bottom Compartment	1987	None
T5065T	116C	Tank 5065 Top Compartment	1987	None
T5065B	116D	Tank 5065 Bottom Compartment	1987	None
T5066T	116A	Tank 5066T Top Compartment	1987	None
T5066B	116B	Tank 5066B Bottom Compartment	1987	None
T5075	116P	Tank 5075	1963	None
T5077	116Q	Tank 5077	1963	None
T5079	116O	Tank 5079	1963	None
R5089	111A or 111B or 116I	Reactor 5089	1969	None/Condenser C5089/Scrubber B111
C5089	111B or 116I	Condenser 5089	Prior to 1980	None/Scrubber B111
D111	111D	In Unit Tank Truck Rack	1969	None
L111RC	RC111L	Rail Cars	1950s	None
L111T	L111T	Tank Truck Loading	1950s	None
L2D	D2L	Container Loading	1969	None

## 2.0. General Conditions

### 2.1. Definitions

- 2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

### 2.2. Acronyms

<b>CAAA</b>	Clean Air Act Amendments	<b>NSPS</b>	New Source
<b>CBI</b>	Confidential Business Information		Performance Standards
<b>CEM</b>	Continuous Emission Monitor	<b>PM</b>	Particulate Matter
<b>CES</b>	Certified Emission Statement	<b>PM<sub>10</sub></b>	Particulate Matter less than 10µm in diameter
<b>C.F.R. or CFR</b>	Code of Federal Regulations		
<b>CO</b>	Carbon Monoxide	<b>pph</b>	Pounds per Hour
<b>C.S.R. or CSR</b>	Codes of State Rules	<b>ppm</b>	Parts per Million
<b>DAQ</b>	Division of Air Quality	<b>PSD</b>	Prevention of Significant Deterioration
<b>DEP</b>	Department of Environmental Protection	<b>psi</b>	Pounds per Square Inch
<b>FOIA</b>	Freedom of Information Act	<b>SIC</b>	Standard Industrial Classification
<b>HAP</b>	Hazardous Air Pollutant		
<b>HON</b>	Hazardous Organic NESHAP	<b>SIP</b>	State Implementation Plan
<b>HP</b>	Horsepower		
<b>lbs/hr or lb/hr</b>	Pounds per Hour	<b>SO<sub>2</sub></b>	Sulfur Dioxide
<b>LDAR</b>	Leak Detection and Repair	<b>TAP</b>	Toxic Air Pollutant
<b>M</b>	Thousand	<b>TPY</b>	Tons per Year
<b>MACT</b>	Maximum Achievable Control Technology	<b>TRS</b>	Total Reduced Sulfur
		<b>TSP</b>	Total Suspended Particulate
<b>MM</b>	Million		
<b>MMBtu/hr or mmbtu/hr</b>	Million British Thermal Units per Hour	<b>USEPA</b>	United States Environmental Protection Agency
<b>MMCF/hr or mmcf/hr</b>	Million Cubic Feet Burned per Hour	<b>UTM</b>	Universal Transverse Mercator
<b>NA</b>	Not Applicable		
<b>NAAQS</b>	National Ambient Air Quality Standards	<b>VEE</b>	Visual Emissions Evaluation
<b>NESHAPS</b>	National Emissions Standards for Hazardous Air Pollutants	<b>VOC</b>	Volatile Organic Compounds
<b>NO<sub>x</sub></b>	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§30-2.39]**

## **2.12. Reasonably Anticipated Operating Scenarios**

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

[45CSR§30-5.1.i.]

## **2.13. Duty to Comply**

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

[45CSR§30-5.1.f.1.]

## **2.14. Inspection and Entry**

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

[45CSR§30-5.3.b.]

## **2.15. Schedule of Compliance**

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

**[45CSR§30-5.3.d.]**

## **2.16. Need to Halt or Reduce Activity not a Defense**

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

**[45CSR§30-5.1.f.2.]**

## **2.17. Emergency**

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

**[45CSR§30-5.7.a.]**

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

**[45CSR§30-5.7.b.]**

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

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

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

**[45CSR§30-5.7.c.]**

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

**[45CSR§30-5.7.d.]**

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

**[45CSR§30-5.7.e.]**

## **2.18. Federally-Enforceable Requirements**

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

**[45CSR§30-5.2.a.]**

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

## **2.19. Duty to Provide Information**

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

**[45CSR§30-5.1.f.5.]**

## **2.20. Duty to Supplement and Correct Information**

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

**[45CSR§30-4.2.]**

## **2.21. Permit Shield**

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

**[45CSR§30-5.6.a.]**

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

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

**[45CSR§30-5.6.c.]**

## **2.22. Credible Evidence**

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

**[45CSR§30-5.3.e.3.B. and 45CSR38]**

## **2.23. Severability**

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

**[45CSR§30-5.1.e.]**

## **2.24. Property Rights**

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

**[45CSR§30-5.1.f.4]**

## **2.25. Acid Deposition Control**

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

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

**[45CSR§30-5.1.d.]**

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

**[45CSR§30-5.1.a.2.]**

### 3.0. Facility-Wide Requirements

#### 3.1. Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.  
[45CSR§6-3.1.]
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.  
[45CSR§6-3.2.]
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation and/or 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 or owner/operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). A copy of this notice should be sent to the USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health.  
[40 C.F.R. 61 and 45CSR15]
- 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. NA

## **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.

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

### 3.4. Recordkeeping Requirements

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

[45CSR§30-5.1.c.2.A.]

- 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. All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, mailed first class or by private carrier with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

**If to the DAQ:**

Director  
WVDEP  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
  
Phone: 304/926-0475  
FAX: 304/926-0478

**If to the US EPA:**

Associate Director  
Office of Enforcement and Permits Review  
(3AP12)  
U. S. Environmental Protection Agency  
Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029

- 3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality.  
**[45CSR§30-8.]**
- 3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification.  
**[45CSR§30-5.3.e.]**
- 3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4.  
**[45CSR§30-5.1.c.3.A.]**
- 3.5.7. **Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.
- 3.5.8. **Deviations.**
- a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:
1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.

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

**[45CSR§30-5.1.c.3.C.]**

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

**[45CSR§30-5.1.c.3.B.]**

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

**[45CSR§30-4.3.h.1.B.]**

- 3.5.10. **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; CO-R21-97-41, III.3 (State-Enforceable only)]**

- 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 45CSR21 to continue to operate said source for periods not to exceed 10 days upon specific application to the Director. Such application shall be made prior to the making of repairs and, in the case of equipment malfunction, within 24 hours of the equipment malfunction. Where repairs will take in

excess of 10 days to complete, additional time periods may be granted by the Director. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director. During such time periods, the owner or operator shall take all reasonable and practicable steps to minimize VOC emissions. [45CSR§21-9.3; CO-R21-97-41, III.3 (State-Enforceable only)]

### 3.6. Compliance Plan

3.6.1. NA

### 3.7. Permit Shield

3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.

3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.

- a. 40 C.F.R. 63, Subpart DDDDD – “National Emission Standards for Hazardous Air Pollutants: Industrial/Commercial/Institutional Boilers and Process Heaters.” Dowtherm Furnace (B032) is subject to only the initial notification requirements in 40 C.F.R. §63.9(b) (i.e., it is not subject to the emission limits, work practice standards, performance testing, monitoring, SSMP, site-specific monitoring plans, recordkeeping and reporting requirements of 40 C.F.R. 63, Subpart DDDDD or any other requirements in 40 C.F.R. 63, Subpart A).
- b. 40 C.F.R. 63, Subpart EEEE – “National Emission Standards for Hazardous Air Pollutants: Organic Liquid Distribution (Non-Gasoline).” Tanks T032A and T032B are used to store Dowtherm and Dowtherm is transferred at the loading/unloading rack TTL032. Tank 1201 is used to transload isophorone. These emission units are not subject to the requirements of 40 C.F.R. 63, Subpart EEEE for storage tanks and transfer racks because the liquid vapor pressures of Dowtherm and isophorone are less than 0.1 psia.
- c. 40 C.F.R. 63, Subpart FFFF – “National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing.” While the batch process vents are subject to the MON MACT, there are no requirements from the rule that apply. The following sections of the rule are not applicable:
  - i. §63.2460 – Does not apply to the batch process vents from Still S251 (Em. Pt. ID 030K) and Reactor Reactivation wet scrubber vent (Em. Pt. ID 030A) since each emission point has pre-control HAP emissions that are less than 200 lb/yr.
  - ii. §63.2480 – Does not apply to the equipment components associated with Still S251 and Reactor reactivation because the total HAP concentration is less than 5% weight in the process streams.
  - iii. §63.2485 – Does not apply to the reactivation water scrubber (Equipment ID# D030) wastewater because the wastewater’s annual average concentration of compounds in tables 8 and 9 to Subpart FFFF is less than 5 ppmw.
  - iv. §63.2490 – Does not apply to the heat exchangers S251TC and S251OC since these are once through cooling water systems, the discharge of which is subject to a NPDES permit.

## Acetone Derivatives Plant Requirements

### 4.1. Limitations and Standards

- 4.1.1. **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. (*S206, S211, S212, S213, S214, S217, S030 {S210/S216 Product Recovery Device}, and D030*) [45CSR34; 40 C.F.R. §63.113(e)]
- 4.1.2. **Group 2 Storage Vessels.** For each Group 2 storage vessel, the owner or operator shall comply with the recordkeeping requirements in 4.4.3. (*T221, T222, T263, T1006, T1019, T1205, T1216, T1233, T1234, T1236, and T1240*) 45CSR34; 40 C.F.R. §63.119(a)(3)]
- 4.1.3. **Group 2 Transfer Operations.** For each Group 2 transfer rack, the owner or operator shall maintain records as required in 4.4.4. (*TCL4 and TTL4*) [45CSR34; 40 C.F.R. §63.126(c)]
- 4.1.4. **Maintenance Wastewater.** Each owner or operator of a source subject to 40 C.F.R. 63, Subpart F shall comply with the requirements of 4.1.4.1 through 4.1.4.3 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)]
- 4.1.4.1. 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)]
- 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)]
  - 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)]
  - Specify the procedures to be followed when clearing materials from process equipment. [45CSR34; 40 C.F.R. §63.105(b)(3)]
- 4.1.4.2. The owner or operator shall modify and update the information required by 4.1.4.1 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)]
- 4.1.4.3. The owner or operator shall implement the procedures described in 4.1.4.1 and 4.1.4.2 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)]
- 4.1.5. **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), 63.164 (Standards: Compressors), 63.165 (Standards: Pressure relief devices in gas/vapor service); 63.166 (Standards: Sampling connection systems), 63.167 (Standards: Open-ended valves or lines), 63.168 (Standards: Valves in gas/vapor service and in light liquid service), 63.169 (Standards: Pumps, valves,

connectors, and agitators in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service), 63.171 (Standards: Delay of repair), 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, 63.164, 63.165, 63.166, 63.167, 63.168, 63.169, 63.171, and 63.174].

4.1.6. **MON Requirements for the Acetone Derivatives Plant.** The permittee shall comply with all applicable requirements of 40 C.F.R. 63, Subpart FFFF - "National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing" no later than May 10, 2008. The permittee is required by 40 C.F.R. §63.2520(d)(1) to submit a notification of compliance status report no later than 150 days after the compliance date of May 10, 2008, containing the information specified in 40 C.F.R. §63.2520(d)(2). Upon submittal of the notification of compliance status report required by 40 C.F.R. §63.2520(d)(1), if required, the permittee shall also submit a complete Title V application for a significant modification to the facility's Title V Operating Permit to incorporate the requirements of 40 C.F.R. 63, Subpart FFFF. [45CSR34; 40 C.F.R. §§63.2445(b), 63.2520(d), 63.2520(d)(1), and 63.2520(d)(2); 45CSR§30-6.5.b.2]

4.1.7. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average. (B032) [45CSR§2-3.1]

4.1.8. No person shall cause suffer, allow or permit the discharge of particulate matter into the open air from all fuel burning units located at one plant, measured in terms of pounds per hour in excess of the amount as determined as follows for Type 'b' fuel burning units:

Dowtherm Furnace (B032):  $54 \text{ MMBTU/hr} * 0.09 \text{ lbs/MMBTU} = 4.86 \text{ lbs/hr}$

[45CSR§2-4.1.b]

4.1.9. At all times, including periods of start-ups, shutdowns and malfunctions, owners and operators shall, to the extent practicable, maintain and operate any fuel burning unit(s) in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, visible emission observations, review of operating and maintenance procedures and inspection of the source. [45CSR§2-9.2]

4.1.10. No person shall cause, suffer, allow or permit the discharge of sulfur dioxide into the open air from all stacks located at one plant, measured in terms of pounds per hour, in excess of the amount as determined as follows for Type 'b' fuel burning units:

Dowtherm Furnace (B032):  $54 \text{ MMBTU/hr} * 1.6 \text{ lbs/MMBTU} = 86.4 \text{ lbs/hr}$

[45CSR§10-3.2.c]

4.1.11. Due to unavoidable malfunction of equipment or inadvertent fuel shortages, emissions exceeding those provided for in 4.1.10 may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the equipment malfunction or fuel shortage. In cases of major equipment failure or extended shortages of conforming fuels, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director. [45CSR§10-9.1]

- 4.1.12. The Dowtherm Furnace (B032) is subject to the requirements of 40 C.F.R. 63, Subpart DDDDD– “National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters” and must comply with this subpart no later than September 13, 2007. Dowtherm Furnace (B032) is subject to only the initial notification requirements in 40 C.F.R. §63.9(b) (i.e., it is not subject to the emission limits, work practice standards, performance testing, monitoring, SSMP, site-specific monitoring plans, recordkeeping and reporting requirements of 40 C.F.R. 63, Subpart DDDDD or any other requirements in 40 C.F.R. 63, Subpart A). **[45CSR34; 40 C.F.R. §§63.7495(b), 63.7506(b), 63.7506(b)(1)]**
- 4.1.13. The permittee shall comply with the following applicable requirements from CO-R21-97-41 for the Acetone Derivatives Plant:
- 4.1.13.1. On or after the effective date of Consent Order CO-R21-97-41 (October 20, 1997), the COMPANY shall, reduce VOC emissions in accordance with the alternate emissions reduction plan (AERP). The permittee shall reduce VOC emissions as set forth in Attachment A of CO-R21-97-41; and shall continue to comply with such emissions reduction requirements and the emission limits set forth in Attachment A as Consent Order CO-R21-97-41 expressly provides. Compliance with the emission limits set forth in Attachment A of Consent Order CO-R21-97-41 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-R21-97-41 for the Acetone Derivatives Plant are provided in APPENDIX A of this permit. **[45CSR§21-40 (State-Enforceable only); CO-R21-97-41, III.1 and Attachment A (State-Enforceable only); June 14, 2006 letter from J. L. Blatt]**
- 4.1.13.2. 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-R21-97-41 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-R21-97-41 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-R21-97-41 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-R21-97-41 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-R21-97-41 (October 20, 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-R21-97-41 and provided in APPENDIX A of this permit, and shall become an Appendix to Consent Order CO-R21-97-41. 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-R21-97-41, III.3 and Attachment B (State-Enforceable only)]**

- 4.1.13.3. Unless granted a variance pursuant to 3.5.11, the COMPANY shall operate all emission control equipment for those emission sources listed in Attachment A of Consent Order CO-R21-97-41, at all times when the production unit is in operation or when any VOC emitting activity is occurring. In the event that the control equipment is inoperable, the production unit shall be shut down or the activity shall be discontinued as expeditiously as possible. **[45CSR§21-40 (State-Enforceable only); CO-R21-97-41, IV.7 (State-Enforceable only)]**
- 4.1.14. **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-R21-97-41, III.2 (State-Enforceable only)]**
- 4.1.15. Tank T1016 shall be equipped with a fixed roof in combination with an internal floating roof that meets the following specifications: **[45CSR16; 40 C.F.R. §60.112b(a)(1)]**
- 4.1.15.1. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. **[45CSR16; 40 C.F.R. §60.112b(a)(1)(i)]**
- 4.1.15.2. The internal floating roof shall be equipped with a mechanical shoe seal between the wall of the storage vessel and the edge of the internal floating roof. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof. **[45CSR16; 40 C.F.R. §§60.112b(a)(1)(ii) and (a)(1)(ii)(C)]**
- 4.1.15.3. Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface. **[45CSR16; 40 C.F.R. §60.112b(a)(1)(iii)]**
- 4.1.15.4. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use. **[45CSR16; 40 C.F.R. §60.112b(a)(1)(iv)]**
- 4.1.15.5. Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. **[45CSR16; 40 C.F.R. §60.112b(a)(1)(v)]**
- 4.1.15.6. Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer’s recommended setting. **[45CSR16; 40 C.F.R. §60.112b(a)(1)(vi)]**

- 4.1.15.7. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening. **[45CSR16; 40 C.F.R. §60.112b(a)(1)(vii)]**
- 4.1.15.8. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. **[45CSR16; 40 C.F.R. §60.112b(a)(1)(viii)]**
- 4.1.15.9. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. **[45CSR16; 40 C.F.R. §60.112b(a)(1)(ix)]**

## **4.2. Monitoring Requirements**

- 4.2.1. After installing the control equipment required to meet 4.1.15, each owner or operator shall: **[45CSR16; 40 C.F.R. §60.113b(a)]**
  - 4.2.1.1. Visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required by this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in 4.5.10. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. **[45CSR16; 40 C.F.R. §60.113b(a)(2)]**
  - 4.2.1.2. Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in 4.2.1.1. **[45CSR16; 40 C.F.R. §60.113b(a)(4)]**
  - 4.2.1.3. Notify the Administrator in writing at least 30 days prior to the refilling of each storage vessel for which an inspection is required by 4.2.1.2 to afford the Administrator the opportunity to have an observer present. If the inspection required by 4.2.1.2 is not planned and the owner or operator could not have known about the inspection 30 days in advance of refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling. **[45CSR16; 40 C.F.R. §60.113b(a)(5)]**

### 4.3. Testing Requirements

- 4.3.1. **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. **[45CSR34; 40 C.F.R. 63, Subpart H; 40 C.F.R. §63.180]**
- 4.3.2. At such reasonable times as the Director may designate, the owner or operator of any fuel burning unit(s) may be required to conduct or have conducted tests to determine the compliance of such unit(s) with the emission limitations of 4.1.8. Such tests shall be conducted in accordance with the appropriate method set forth in the Appendix to 45CSR2 or other equivalent EPA approved method approved by the Director. The Director, or his duly authorized representative, may at his option witness or conduct such tests. Should the Director exercise his option to conduct such tests, the operator will provide all necessary sampling connections and sampling ports located in such manner as the Director may require, power for test equipment, and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices. Sufficient information on temperatures, velocities, pressures, weights and dimensional values shall be reported to the Director, with such necessary commentary as he may require to allow an accurate evaluation of the reported test results and the conditions under which they were obtained. (B032) **[45CSR§§2-8.1.b and 8.1.b.1]**
- 4.3.3. The Director, or his duly authorized representative, may conduct such other tests as he may deem necessary to evaluate air pollution emissions other than those noted in 4.1.8. (B032) **[45CSR§2-8.1.c]**
- 4.3.4. The permittee shall comply with all applicable provisions of 45CSR§21-41 regarding test methods and compliance procedures to demonstrate compliance with 4.1.14, except as otherwise approved by the Director. **[45CSR§21-41; CO-R21-97-41, III.5 (State-Enforceable only)]**
- 4.3.5. **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-R21-97-41, III.2 (State-Enforceable only)]**

### 4.4. Recordkeeping Requirements

- 4.4.1. **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 4.1.1, 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 19, 1997 or any amendments thereto. 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). (S206, S211, S212, S213, S214, S217, S030 {S210/S216 Product Recovery Device}, and D030) **[45CSR34; 40 C.F.R. §63.117(b)]**
- 4.4.2. **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 4.1.1 shall keep up-to-date, readily accessible records of: **[45CSR34; 40 C.F.R. §63.118(c)]**

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

4.4.2.2. 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)]

(S206, S211, S212, S213, S214, S217, S030 {S210/S216 Product Recovery Device}, and D030)

4.4.3. **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. (T221, T222, T263, T1006, T1019, T1205, T1216, T1233, T1234, T1236, and T1240) [45CSR34; 40 C.F.R. §63.123(a)]

4.4.4. **Group 2 Transfer Operations.** Each owner or operator of a Group 2 transfer rack shall record, update annually, and maintain the information specified in 4.4.4.1 through 4.4.4.3 in a readily accessible location on site: [45CSR34; 40 C.F.R. §63.130(f)]

4.4.4.1. An analysis demonstrating the design and actual annual throughput of the transfer rack; [45CSR34; 40 C.F.R. §63.130(f)(1)]

4.4.4.2. An analysis documenting the weight-percent organic HAP's in the liquid loaded. Examples of acceptable documentation include but are not limited to analyses of the material and engineering calculations. [45CSR34; 40 C.F.R. §63.130(f)(2)]

4.4.4.3. An analysis documenting the annual rack weighted average HAP partial pressure of the transfer rack. [45CSR34; 40 C.F.R. §63.130(f)(3)]

a. For Group 2 transfer racks that are limited to transfer of organic HAP's with partial pressures less than 10.3 kilopascals, documentation is required of the organic HAP's (by compound) that are transferred. The rack weighted average partial pressure does not need to be calculated. [45CSR34; 40 C.F.R. §63.130(f)(3)(i)]

b. For racks transferring one or more organic HAP's with partial pressures greater than 10.3 kilopascals, as well as one or more organic HAP's with partial pressures less than 10.3 kilopascals, a rack weighted partial pressure shall be documented. The rack weighted average HAP partial pressure shall be weighted by the annual throughput of each chemical transferred. [45CSR34; 40 C.F.R. §63.130(f)(3)(ii)]

(TCLA and TTLA)

4.4.5. **Maintenance Wastewater.** The owner or operator shall maintain a record of the information required by 4.1.4.1 and 4.1.4.2 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)]

4.4.6. **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. [45CSR34; 40 C.F.R. 63, Subpart H; 40 C.F.R. §63.181]

4.4.7. The permittee shall maintain records of the operating schedule and the quantity and quality of fuel consumed in each fuel burning unit as specified in 4.4.7.1. Such records are to be maintained on-site and made available to the Director or his duly authorized representative upon request. Where appropriate the owner or operator of a fuel burning unit(s) may maintain such records in electronic form.

4.4.7.1. For fuel burning unit(s) which burn only pipeline quality natural gas, such records shall include, but not be limited to, the date and time of start-up and shutdown, and the quantity of fuel consumed on a monthly basis.

**[45CSR§§2-8.3.c and 8.3.d; 45CSR§§2A-7.1.a and 7.1.a.1]**

4.4.8. **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-R21-97-41, III.2 (State-Enforceable only)]**

4.4.9. For Tank T1016, the owner or operator shall:

4.4.9.1. Keep a record of each inspection performed as required by 4.2.1.1 and 4.2.1.2. Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). **[45CSR16; 40 C.F.R. §60.115b(a)(2)]**

4.4.9.2. Keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. These records shall be kept for the life of the source. **[45CSR16; 40 C.F.R. §§60.116b(a) and (b)]**

4.4.9.3. Maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. **[45CSR16; 40 C.F.R. §60.116b(c)]**

4.4.10. The permittee shall maintain all information used to prepare the MON MACT Notification of Compliance Status (NOCS) report.  
**[40 C.F.R. §§ 63.10(b)(1) and (3); 45CSR34]**

## **4.5. Reporting Requirements**

4.5.1. The permittee shall submit Periodic Reports as described in 40 C.F.R. §63.152(c), except that semi-annual periodic monitoring reports are due within 60 calendar days following June 30 and December 31, for each calendar year. The reports cover the periods January 1 through June 30 and July 1 through December 31. **[45CSR34; 40 C.F.R. §§63.152(a)(4) and 63.152(c)]**

4.5.2. The permittee shall submit reports of start-up, shutdown, and malfunction required by 40 C.F.R. §63.10(d)(5). The start-up, shutdown and malfunction reports may be submitted on the same schedule as the Periodic Reports required under 4.5.1. **[45CSR34; 40 C.F.R. §§63.152(a)(5) and 63.152(d)(1)]**

4.5.3. Reserved.

4.5.4. **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)]**

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

4.5.4.2. 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 4.4.2; and **[45CSR34; 40 C.F.R. §63.118(g)(2)]**

4.5.4.3. 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)]**

*(S206, S211, S212, S213, S214, S217, S030 {S210/S216 Product Recovery Device}, and D030)*

4.5.5. **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 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)]**

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

4.5.5.2. The results of the recalculation of the TRE index value required under 40 C.F.R. §63.115(e) and recorded under 4.4.2, **[45CSR34; 40 C.F.R. §63.118(h)(2)]**

4.5.5.3. 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)]**

*(S206, S211, S212, S213, S214, S217, S030 {S210/S216 Product Recovery Device}, and D030)*

4.5.6. **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 the conditions listed in 4.5.6.1 through 4.5.6.4 is met. **[45CSR34; 40 C.F.R. §63.118(k)]**

4.5.6.1. 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)]**

4.5.6.2. 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)]**

4.5.6.3. 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)]**

4.5.6.4. 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)]**

*(S206, S211, S212, S213, S214, S217, S030 {S210/S216 Product Recovery Device}, and D030)*

4.5.7. **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. **[45CSR34; 40 C.F.R. 63, Subpart H; 40 C.F.R. §63.182]**

4.5.8. **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-R21-97-41, III.2 (State-Enforceable only)]**

4.5.9. The owner or operator of a fuel burning unit(s) subject to 45CSR2 shall report to the Director any malfunction of such unit or its air pollution control equipment which results in any excess particulate matter emission rate or excess opacity (i.e., 4.1.7 and 4.1.8) as provided in one of the following subdivisions:

4.5.9.1. Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless otherwise required by the Director:

- a. The excess opacity period does not exceed thirty (30) minutes within any 24-hour period; and
- b. Excess opacity does not exceed 40%.

4.5.9.2. The owner or operator shall report to the Director any malfunction resulting in excess particulate matter or excess opacity, not meeting the criteria set forth in 4.5.9.1, by telephone, telefax, or e-mail by the end of the next business day after becoming aware of such condition. The owner or operator shall file a certified written report concerning the malfunction with the Director within thirty (30) days providing the following information:

- a. A detailed explanation of the factors involved or causes of the malfunction;
- b. The date and time of duration (with starting and ending times) of the period of excess emissions;
- c. An estimate of the mass of excess emissions discharged during the malfunction period;
- d. The maximum opacity measured or observed during the malfunction;
- e. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and
- f. A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule of such implementation.

**[45CSR§2-9.3]**

4.5.10. If any of the conditions described in 4.2.1.1 are detected for Tank T1016 during the annual visual inspection required by 4.2.1.1, a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made. **[45CSR16; 40 C.F.R. §60.115b(a)(3)]**

4.5.11. The permittee shall submit compliance reports containing all applicable information specified in 40 C.F.R. §63.2520(e). Such reports shall be submitted with the semiannual monitoring report (permit condition 3.5.6.). [40 C.F.R. §§ 63.2520(a), 63.2520(e), 63.2520(b)(5); 45CSR34]

#### **4.6. Compliance Plan**

4.6.1. NA

## 5.0. TONE<sup>®</sup> Polyol Plant Requirements

### 5.1. Limitations and Standards

~~5.1.1. MON Requirements for the TONE<sup>®</sup> Polyol Plant. The permittee shall comply with all applicable requirements of 40 C.F.R. 63, Subpart FFFF “National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing” no later than May 10, 2008. The permittee is required by 40 C.F.R. §63.2520(d)(1) to submit a notification of compliance status report no later than 150 days after the compliance date of May 10, 2008, containing the information specified in 40 C.F.R. §63.2520(d)(2). Upon submittal of the notification of compliance status report required by 40 C.F.R. §63.2520(d)(1), if required, the permittee shall also submit a complete Title V application for a significant modification to the facility’s Title V Operating Permit to incorporate the requirements of 40 C.F.R. 63, Subpart FFFF. [45CSR34; 40 C.F.R. §§63.2445(b), 63.2520(d), 63.2520(d)(1), and 63.2520(d)(2); 45CSR§30-6.5.b.2]~~

~~5.1.2. The permittee shall comply with the following applicable requirements from CO R21-97-41 for the TONE<sup>®</sup> Polyol Plant:~~

~~5.1.2.1. On or after the effective date of Consent Order CO R21-97-41 (October 20, 1997), the COMPANY shall, reduce VOC emissions in accordance with the alternate emissions reduction plan (AERP). The permittee shall reduce VOC emissions as set forth in Attachment A of CO R21-97-41; and shall continue to comply with such emissions reduction requirements and the emission limits set forth in Attachment A as Consent Order CO R21-97-41 expressly provides. Compliance with the emission limits set forth in Attachment A of Consent Order CO R21-97-41 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 R21-97-41 for the TONE<sup>®</sup> Polyol Plant are provided in APPENDIX A of this permit. [45CSR§21-40 (State-Enforceable only); CO R21-97-41, III.1 and Attachment A (State-Enforceable only); June 14, 2006 letter from J. L. Blatt]~~

~~5.1.2.2. 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 R21-97-41 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 R21-97-41 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 R21-97-41 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 R21-97-41 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 R21-97-41 (October 20, 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 R21-97-41 and provided in APPENDIX A of this permit, and shall become an Appendix to Consent Order CO R21-97-41. 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-R21-97-41, III.3 and Attachment B (State-Enforceable only)]~~

~~5.1.2.3. Unless granted a variance pursuant to 3.5.11, the COMPANY shall operate all emission control equipment for those emission sources listed in Attachment A of Consent Order CO-R21-97-41, at all times when the production unit is in operation or when any VOC emitting activity is occurring. In the event that the control equipment is inoperable, the production unit shall be shut down or the activity shall be discontinued as expeditiously as possible. [45CSR§21-40 (State-Enforceable only); CO-R21-97-41, IV.7 (State-Enforceable only)]~~

~~5.1.3. **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-R21-97-41, III.2 (State-Enforceable only)]~~

## ~~5.2. Monitoring Requirements~~

~~5.2.1. NA~~

## ~~5.3. Testing Requirements~~

~~5.3.1. **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-R21-97-41, III.2 (State-Enforceable only)]~~

## ~~5.4. Recordkeeping Requirements~~

~~5.4.1. **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-R21-97-41, III.2 (State-Enforceable only)]~~

## **5.5. Reporting Requirements**

~~5.5.1. 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.e, 37.11, and 5.2 (State Enforceable only); CO-R21-97-41, III.2 (State Enforceable only)]~~

## **5.6. Compliance Plan**

~~5.6.1. NA~~

## **APPENDIX A – Consent Order CO-R21-97-41 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
Acetone Derivatives 030	Tank 1006 (T1006)	12.4	035E	NA <sup>1</sup>	FS	95 <sup>2</sup>	8760	0.62	0.20
Acetone Derivatives 030 <sup>1</sup>	Tank 1007 (T1007) <sup>1</sup>	1.2 <sup>1</sup>	035TT <sup>1</sup>	NA <sup>1</sup>	FS <sup>1</sup>	95 <sup>1,2</sup>	8760 <sup>1</sup>	0.06 <sup>1</sup>	0.27 <sup>1</sup>
Acetone Derivatives 030	Tank 1008 (T1008)	17.30 <sup>1</sup>	035F	None	No Device	0	8760 <sup>1</sup>	17.30 <sup>1</sup>	11.26 <sup>1</sup>
Acetone Derivatives 030	Tank 1009 (T1009)	17.30 <sup>1</sup>	035G	None	No Device	0	8760 <sup>1</sup>	17.30 <sup>1</sup>	11.26 <sup>1</sup>
Acetone Derivatives 030 <sup>1</sup>	Tank 1016 (T1016) <sup>1</sup>	3.66 <sup>1</sup>	045T <sup>1</sup>	NA <sup>1</sup>	FS <sup>1</sup>	95 <sup>1,2</sup>	8760 <sup>1</sup>	0.18 <sup>1</sup>	0.80 <sup>1</sup>
<del>TONE® Polyol 111<sup>+</sup></del>	<del>5089 Reactor (R5089)<sup>+</sup></del>	<del>417.3<sup>+</sup></del>	<del>116<sup>+</sup></del>	<del>B111<sup>+</sup></del>	<del>COND<sup>+</sup></del>	<del>99<sup>+</sup></del>	<del>8760<sup>+</sup></del>	<del>1.18<sup>+</sup></del>	<del>0.53<sup>+</sup></del>

Packed Bed Scrubber – PBS

Floating Roof Secondary Seal – FS

Condenser - COND

<sup>1</sup> Revised based on June 14, 2006 letter from J. L. Blatt.

<sup>2</sup> Floating roof assumed to reduce VOC emissions by 95%.

