

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

Joe Manchin III  
Governor

Stephanie R. Timmermeyer  
Cabinet Secretary

# Permit to Operate



*Pursuant to  
Title V  
of the Clean Air Act*

*Issued to:*  
Bayer CropScience  
**Institute Site**  
Group 8 of 8  
(Phosgene, MIC, Sevin)  
R30-03900007-2005

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*John A. Benedict  
Director*

*Issued: December 19, 2006 • Effective: January 3, 2006*  
*Expiration: December 19, 2011 • Renewal Application Due: June 19, 2011*

Permit Number: **R30-03900007-2005**  
Permittee: **Bayer CropScience**  
Facility Name: **Institute Site**  
Mailing Address: **P.O. Box 1005**  
**Charleston, WV 25112**

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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:	<b>P.O. Box 1005</b> <b>Charleston, WV 25112</b>
Telephone Number:	304-767-6148
Type of Business Entity:	Corporation
Facility Description:	Manufacture of Phosgene, MIC, Sevin
SIC Codes:	2879
UTM Coordinates:	432.0 km Easting • 4248.310 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.*

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**1.0. Emission Units**

<b>Emission Unit ID</b>	<b>Emission Point ID</b>	<b>Emission Unit Description</b>	<b>Year Installed</b>	<b>Design Capacity</b>	<b>Control Device</b>
<b>Phosgene</b>					
E-411	242E or 242A	Converter Condenser	1993	3.7 MMBTU/hr	242D/242E or 242B/242A
E-413	242E or 242A	Superheater	1993	68,850 BTU/hr	N/A
E-431	242E or 242A	Start-up Heater	1993	869 BTU/hr	N/A
E-440	242A	Condenser	1993	975,185 BTU/hr	C-471 242A
E-450	242E or 242A	Brine Cooler	1993	975,185 BTU/hr	N/A
C-410	242E or 242A	Converters	1993	1,254 gal 1,122 gal	N/A
C-430	242E or 242A	Storage Tank	1993	4,000 gal	242D/242E or 242B/242A
C-452	242E or 242A	Storage Tank	1993	300 gal	242D/242E or 242B/242A
C-460	242A	Storage Tank	1993	500 gal	N/A
T-4578	T-4578	Storage Tank	1970	30,000 gal	N/A
T-4579	T-4579	Storage Tank	1963	30,000 gal	N/A
T-4580	T-4580	Storage Tank	1959	30,000 gal	N/A
T-4581	T-4581	Storage Tank	1959	30,000 gal	N/A
Y-1539	Y-1539	Filter	1993	6 gal	N/A
D-1528	D-1528	Knock out pot	1993	6 gal	N/A
Tank Car	Tank Car	Tank Car	1993	180,000 lbs	N/A
D-1520	D-1520	Vent Scrubber	1993	9,000 gal	N/A
E-1521	D-1520	Caustic Cooler	1993	370,000 BTU/hr	N/A
D-1524	D-1520	De-entrainment tank	1993	200 gal	N/A
E-1532	D-1520	Vaporizer North	1993	2.55 MMBTU/hr	N/A
E-1531	D-1520	Vaporizer South	1993	2.55 MMBTU/hr	N/A
E-1534	E-1534	Superheater	1993	68,850 BTU/hr	N/A
V-1555	V-1555	Hydecator Reactor	2000	100 gal/hr	N/A

<b>Emission Unit ID</b>	<b>Emission Point ID</b>	<b>Emission Unit Description</b>	<b>Year Installed</b>	<b>Design Capacity</b>	<b>Control Device</b>
V-1556	V-1556	Pick flow water heater	2000	134,000 BTU/hr	N/A
<b>Control Devices</b>					
242A	242A	Flare	1976	300 MMBTU/hr	N/A
242B	242A	Scrubber (NVS)	1976	30' x 36" packed column	242A
242C	242A or 242C	Scrubber (EVS)	1976	52' x 10' packed column	242A
242D	242E	Incinerator (VGI)	1989	5 MMBTU/hr	242A
242E	242E	Scrubber (VGI Scrubber)	2001	1,918 gal	N/A
C-471	242A	Scrubber (PVS)	1993	28' x 3' packed column	242A
<b>MIC</b>					
T-4875	T-4875	Storage Tank 4875	1976	38,800 gal	N/A
T-4876	T-4876	Storage Tank 4876	1976	38,800 gal	N/A
T-4877	T-4877	Storage Tank 4877	1976	38,800 gal	N/A
T-4878	T-4878	Storage Tank 4878	1976	38,800 gal	N/A
E-101	242E or 242A	Vaporizer	1976	1.7 MMBTU/hr	N/A
R-A&B 104	242E or 242A	Reactors	1976	1.6 gal	N/A
E-A&B 105	242E or 242A	Reactor Condensers	1976	4.450 MMBTU/hr	N/A
E-A&B 103	242E or 242A	Superheaters	1976	1.27 MMBTU/hr	N/A
E-A&B 102	242E or 242A	Vaporizers	1993 2003	2.93 MMBTU/hr	N/A
C-106	242E or 242A	Feed Tank	1976	11,500 gal	N/A
E-107	242E or 242A	Reactors Vent Condenser	1976	1.96 MMBTU/hr	N/A
C-133	242E or 242A	Scrubber	1976	530 gal	N/A
C-109	242E or 242A	Stripping Still	1976	1,893 gal	N/A
E-111	242E or 242A	Stripping Still Condenser (PSS)	1986	9.15 MMBTU/hr	N/A
E-112	242E or 242A	Stripping Still Vent Condensers	1976	3.58 MMBTU/hr	N/A

<b>Emission Unit ID</b>	<b>Emission Point ID</b>	<b>Emission Unit Description</b>	<b>Year Installed</b>	<b>Design Capacity</b>	<b>Control Device</b>
C-A&B 117	242E or 242A	Pyrolyzers	1976 (east) 1997 (west)	5,600 gal	N/A
E-A&B 119	242E or 242A	Pyrolyzer Condensers	1976	9.18 MMBTU/hr	N/A
E-A&B 120	242E or 242A	Pyrolyzer Vent Condensers	1976	240,000 BTU/hr	N/A
T-4867	242A	MRS Feed Tank	1976	11,500 gal	242A
C-121	242A	MRS Feed Surge Tank (4857)	1976	11,500 gal	N/A
C-123	242A	MRS Refining Still	1976	140,000 lbs	N/A
E-126	242A	MRS Condenser	1979	4.025 MMBTU/hr	N/A
E-128	242A	MRS Vent Condenser	1976	230,000 BTU/hr	242A
C-A242	242A	Unit Storage tank 4871 (IDLE)	1976	15,500 gal	242A
C-B242	242A	Unit Storage Tank 4872	1976	15,500 gal	242A
C-C242	242A	Unit Storage Tank 4873	1976	15,500 gal	242A
C-247	242A	Unit Dump Tank 4874	1976	30,000 gal	242A
T-4840	242A	Refrigeration Tank	1976	2,500 gal	242A
T-4851	242A	Field Storage Tank	1976	31,000 gal	242A
T-4852	242A	Field Storage Tank	1976	31,000 gal	242A
T-4853	242A	Field Storage Tank	1976	31,000 gal	242A
T-4850	242A	Refrigeration System	1976	1,100 gal	242A
C-201	242E or 242A	Absorber	1992	280 gal	N/A
E-203	242E or 242A	Absorber Condenser	1976	7.796 MMBTU/hr	N/A
E-205	242A or 242E	Absorber Vent Condenser	1976	348,000 BTU/hr	242D/242E or 242B/242A
T-139-A	242A	Pump Seal Oil Tank 139-A	1976	180 gal	242A/242B
T-4865	242A	Brine Surge Tank 4865	1976	9,280 gal	242A/242B
V-260	V-260	Refrigeration Unit	1996	12,000 lbs	Closed System
T-4869	242E or 242A	Residue Feed Tank 4869	1976	4,351 gal	N/A
C-150	242E or 242A	Residue Treater	1997	319 gal	N/A
E-153	242E or 242A	Residue Treater Condenser	1976	720,000 gal	N/A
E-155	242A or 242E	Residue Treater Vent Condenser	1976	407,761 BTU/hr	242D/242E or 242B/242A

<b>Emission Unit ID</b>	<b>Emission Point ID</b>	<b>Emission Unit Description</b>	<b>Year Installed</b>	<b>Design Capacity</b>	<b>Control Device</b>
C-173	242A or 242E	Residue Treater Water Surge Tank	1999	3,547 gal	242D/242E or 242B/242A
C-154	242A or 242E	Residue Treater Overhead Decanter	1999	1,315 gal	242D/242E or 242B/242A
C-170	242A or 242E	Extractor Feed Tank	1999	1,700 gal	242D/242E or 242B/242A
C-204	242E or 242A	Absorber Overhead Decanter	1999	650 gal	N/A
C-158	242E or 242A	Extractor	2003	475 gal	N/A
C-159	242E or 242A	Drying Column	2002	475 gal	N/A
E-162	242E or 242A	Drying Column Condenser (IDLE)	1976	134,000 BTU/hr	N/A
T-4868	242A or 242E	Storage Tank	1976	3,300 gal	242D/242E or 242B/242A
T-4879	242A or 242E	Storage Tank	1976	21,000 gal	242D/242E or 242B/242A
T-4821	242F	Caustic Storage Tank	1992	70,000 gal	N/A
T-4881	242G	Caustic Storage Tank	1976	30,000 gal	N/A
T-4883	242A	EVS Surge Tank	1985	10,000 gal	242A/242C
C-250	242A	EVS Knock Out Pot	1976	1,400 gal	242A
3110	242A	Knock Out Pot	1976	500 gal	242A
E-109	N/A	PSS Calandria	1992	1.746 MMBTU/hr	N/A
E-125	N/A	MRS Column Calandria	1992	4.108 MMBTU/hr	N/A
E-220	N/A	HCL Absorber Calandria	1989	610,000 BTU/hr	N/A
E-129	N/A	MRS Make Cooler	1976	230,000 BTU/hr	N/A
E A&B 118	N/A	Pyrolyzer Calandria	1992	1.052 MMBTU/hr	N/A
E-135	N/A	HCL Scrubber Solvent Brine Cooler	1976	1.54 MMBTU/hr	N/A
E-136	N/A	HCL Scrubber Solvent Waster Cooler	1976	1.38 MMBTU/hr	N/A
E-152	N/A	Residue Treater tails Cooler	1996	740,000 BTU/hr	N/A
E-161	N/A	Tails Drying Column	1976	70,000 BTU/hr	N/A
E-202	N/A	HCL Absorber Tails Cooler	1993	468,000 BTU/hr	N/A

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
E-232	N/A	Normal Vent Scrubber Recycle Cooler	1996	695,100 BTU/hr	N/A
E-243	N/A	Storage Cooler	1984	1.632 MMBTU/hr	N/A
C-1211	N/A	MIC Vent Separator Pot	1985	100 gal	N/A
<b>Control Devices</b>					
242A	242A	Flare	1976	300 MMBTU/hr	N/A
242B	242A/242B	Scrubber (NVS)	1976	30' x 36" packed column	242A
242C	242A/242B	Scrubber (EVS)	1976	52' x 10' packed column	242A
242D	242A	Incinerator (VGI)	1989	5 MMBTU/hr	242E
242E	242E	Scrubber (VGI Scrubber)	2001	1,918 gal	N/A
<b>Sevin</b>					
4601 (265D)	260K	Storage Tank	1962	15,000 gal	260K
4602	260K	Storage Tank	1962	15,000 gal	260K
4603 (265C)	260K	Storage Tank	1962	15,000 gal	260K
4604	260K	Storage Tank	1962	15,000 gal	260K
4608	260K	Storage Tank	1962	15,000 gal	260K
4615 (260A)	260K	Storage Tank	1962	10,000 gal	260A/260K
4617	242A	Storage Tank	1962	16,000 gal	242A
4619 (265G)	260K	Storage Tank	1962	15,000 gal	260K
4621	260K	Storage Tank	1962	16,000 gal	260K
4623	260K	Storage Tank	1962	14,500 gal	260K
26017	260K	Crystallizer Overhead Tank	1962	1,000 gal	260K
26007	260K	A/C Surge Tank	1962	1,500 gal	260K
26004	260K	Mother Liquor Storage Tank	1962	5,000 gal	260K

<b>Emission Unit ID</b>	<b>Emission Point ID</b>	<b>Emission Unit Description</b>	<b>Year Installed</b>	<b>Design Capacity</b>	<b>Control Device</b>
26006	260K	Dissolver Storage Tank	1962	1,000 gal	260K
29763	29763	Regeneration Condenser	1962	1,000 gal	N/A
1570	260K	Overflow Pot	1962	100 gal	260K
26019	260K	Feed Filter	1962	40 gal	260A/260K
26001	260K	Reactor	1962	7,000 gal	260A/260K
26002	260K	Reactor	1962	7,000 gal	260A/260K
26003	260K	Stripping Still	1962	6,000 gal	260A/260K
26022	260K	Vent Condenser (MSS Vent Condenser)	1962	0.1 MMBTU/hr	260A/260K
26023	260K	Overhead Condenser	1962	3.9 MMBTU/hr	260A/260K
26018	260K	Product Filter	1962	5,088 in <sup>3</sup>	N/A
26015	260F	Surge Bin	1962	20,000 lbs/hr	F-260
25584	25584	Conveyors	1962	20,000 lbs/hr	F-260
26131	26131	Packers	1962	6,000 lbs/hr	F-260
26011	260K	Vacuum Pump	1962	50 mmHG	260K
28197	260K	#1 Crystallizer	1962	10,000 gal	260K
02134	260K	#2 Crystallizer	1962	10,000 gal	260K
26010	260K	Drying Still	1962	40,000 gal	260K
26012	260K	Vacuum Pump	1962	50 mmHG	260K
26953	260K	#3 Crystallizer	1962	10,000 gal	260K
31084	260K	Vent Kettle	1962	1,500 gal	260K
26016	260G Brine Side	AC Chiller Coil	1962	0.2 MMBTU/hr	N/A
26013	260K	Centrifuges	1962	300 gal	260K
1515115- 62B (260C)	260K	Hopper	1962	7,500 gal	260K
00028	260K	Dryer	1962	7,500 gal	260K
1180 28310	260K	Wyssmont Dryer Condensers (2)	1962	2.2 MMBTU/hr	260K
26014 (260E)	260K	Demister	1962	1,200 gal	260K

<b>Emission Unit ID</b>	<b>Emission Point ID</b>	<b>Emission Unit Description</b>	<b>Year Installed</b>	<b>Design Capacity</b>	<b>Control Device</b>
26008 (260I)	260K	Bird Centrifuge	1962	400 gal	260K
00611	260K	Evaporator	1962	300 gal	260K
4688 to 4699	265A or 265B	Storage Bins	1962	150,000 lbs	265A or 265B
26852	260K	Knock Out Pot	1962	65 gal	260K
25352	260K	Jet Pot	1962	120 gal	260K
28094	260K	Condensate Pot	1962	320 gal	260K
29640	260K	Solvent Heater	1962	2.9 MMBTU/hr	260K
<b>Control Devices</b>					
260A	260K	Sevin Scrubber	1978	1'2" x 14'	260K
260K	260K	Thermal Oxidizer (PTO)	1989	6.0 MMBTU/hr	N/A
265A	265A	Baghouse – Storage Bins	1962	140 sqft cloth	N/A
265B	265B	Baghouse – Storage Bins	1962	140 sqft cloth	N/A
260F	260F	Baghouse – Surge Bin Packout	1961	63 sqft cloth	N/A

## 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 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 must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). A copy of this notice is required to be sent to the USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health.  
[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.** Should this stationary source, as defined in 40 C.F.R. § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.

**[40 C.F.R. 68]**

- 3.1.9. **NO<sub>x</sub> Budget Trading Program.** The permittee shall comply with the standard requirements set forth in the attached NO<sub>x</sub> Budget Permit Application (see Attachment D of Group 1 Permit, issued 5/26/2005) and the NO<sub>x</sub> Budget Permit requirements set forth in 45CSR1 for each NO<sub>x</sub> budget source. The complete NO<sub>x</sub> Budget Permit Application shall be the NO<sub>x</sub> Budget Permit portion of the Title V permit administered in accordance with 45CSR30.

**[45CSR§§1-6.1.b. and 20.1.]**

- a. The NO<sub>x</sub> Budget portion of this permit is deemed to incorporate automatically the definitions of terms under 45CSR§1-2 and, upon recordation by the Administrator under 45CSR§1-50 through 45CSR§1-57, 45CSR§1-60 through 45CSR§1-62 or 45CSR§1-80 through 45CSR§1-88, every allocation, transfer or deduction of a NO<sub>x</sub> allowance to or from the compliance accounts of the NO<sub>x</sub> Budget units covered by the permit or the overdraft account of the NO<sub>x</sub> budget source covered by the permit.

**[45CSR§1-23.2.]**

- b. Except as provided in 45CSR§1-23.2, the Director will revise the NO<sub>x</sub> Budget portion of this permit, as necessary, in accordance with the operating permit revision requirements set forth in 45CSR30.

**[45CSR§1-24.1.]**

- 3.1.10. The permitted facility shall be constructed and operated in accordance with information filed in Permit Applications R13-223, R13-226, R13-1300, R13-1590 and any amendments thereto. The Director may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.

**[45CSR13, Permit No. R13-223, R13-226, R13-1300, and R13-1590 Condition G.R. 3]**

## **3.2. Monitoring Requirements**

- 3.2.1. N/A

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

[45CSR§30-5.1.c.2.A.]

- 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. Such record shall contain an assessment of the validity of the complaints as well as any corrective actions 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, or mailed first class with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

**If to the DAQ:**

Director  
WVDEP  
Division of Air Quality  
601 – 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. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative. **[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 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.]**
- c. Every report submitted under this subsection shall be certified by a responsible official.  
**[45CSR§30.5.1.c.3.D.]**
- 3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.  
**[45CSR§30-4.3.h.1.B.]**

### **3.6. Compliance Plan**

3.6.1. N/A

### **3.7. Permit Shield**

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

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

N/A

#### 4.0. Source-Specific Requirements [Phosgene]

##### 4.1. Limitations and Standards

4.1.1. Maximum allowable emissions to the atmosphere from the permitted facility shall not exceed the following hourly and annual limitations:

Process Area Phosgene 243	Chemical	Vent 242E		Vent 242A	
		lbs/hr	lbs/yr	lbs/hr	lbs/yr
	HCl	0.027	1.8	0.063	380.0
	Cl <sub>2</sub>	<0.01	0.15	<0.01	0.03
	Carbon Tetrachloride	<0.01	<0.01	<0.01	1.1
	Chloroform	0.06	4.0	N/A	N/A
	Phosgene	N/A	N/A	<0.01	0.6
	Carbon Monoxide	N/A	N/A	2.2	11,200

Note: The above represent emissions contributed only by the phosgene unit.  
**[45CSR13, Permit R13-1590, Condition A.1. (242E and 242A)]**

4.1.2. The phosgene unit shall be shutdown as rapidly as possible, considering safety factors, when any of the following conditions exist:

- a) Scrubber C-471 is removed from service or is malfunctioning, provided that phosgene unit plant emissions shall be routed to and controlled by Scrubber 242C, if possible, during the unit shutdown process.
- b) When Flare 242A is removed from service or is malfunctioning.
- c) When the chloroform emissions are not controlled by the Incinerator/Scrubber system (242D/242E) or by the alternate control system, which contains Scrubber 242B followed by Flare 242A.
- d) While controlling chloroform emissions using the alternate control system devices, if either the Scrubber 242B or the Flare 242A are removed from service or malfunction.

**[45CSR13, Permit R13-1590, Condition A.2. (C-471, 242C, 242A, 242D/242E, and 242B)]**

4.1.3. During the periods of time the phosgene process is operating, the permittee shall assure that Scrubber C-471 shall operate in accordance with the following operational parameters:

- |    |                              |                     |
|----|------------------------------|---------------------|
| a) | liquor flow rate to scrubber | 200 gal/min minimum |
| b) | liquor supply pressure       | monitor only        |
| c) | percent caustic              | 3% minimum*         |

\* Percent caustic in scrubber liquor shall be controlled by an in-line titration system or laboratory analysis in the absence of the titration system. A large excess of scrubber liquor and caustic are present in the scrubber.

**[45CSR13, Permit R13-1590, Condition A.3. (C-471)]**

4.1.4. **40CFR63, Subpart H Requirements for Equipment Leaks.** The permittee shall comply with all applicable standards of 40CFR63, Subpart H – “National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks.” The pertinent equipment leak standards include 40CFR§63.162 (Standards: General), 63.163 (Standards: Pumps in light liquid service), 63.165 (Standards: Pressure relief devices in gas/vapor service), 63.166 (Standards: Sampling connection systems), 63.168 (Standards: Valves in gas/vapor service and in light liquid service), 63.169 (Standards: Pumps, valves, connectors, and agitators in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service), and 63.174 (Standards: Connectors in gas/vapor service and in light liquid service).

**[45CSR13, Permit R13-1590, Condition A.4 and A.5, 45CSR§21-37, CO-21-97-4 (State-Enforceable only), Condition III.2, CO-27-92-12, Condition III.3 (State-Enforceable only), 45CSR34; 40CFR60, Subpart VV, 40CFR63, Subpart H; 40CFR§§63.162, 63.163, 63.165, 63.166, 63.168, 63.169, and 63.174]**

4.1.5. The Phosgene Process Area 243 is subject to the following emission limitations:

Emission Point ID	Control Device	Control Device Efficiency %	Maximum Hours of Operation	Maximum Allowable VOC Emissions	
				(lbs/hr)	(tons/yr)
E411 Converter Chloroform Condenser	242D/242E	99.58/99	8424	0.45	1.90
	242B/242A	0/98			
E440 Phosgene Condenser	C-471/242A	99.99/98	8424	33.2	139.8

**[45CSR§21-37, CO-21-97-4 (State-Enforceable only), Condition III.1. (242D/242E, 242B/242A, and C-471/242A)]**

4.1.6. Carbon Tetrachloride emissions from the Phosgene Process Area 243 shall not exceed the following:

Emission Point	Allowable Emissions	
	(lbs/hr)	(lbs/yr)
242A Unit blow-off from Scrubber/flare system	<0.01	5.3
242A Tank vent from Scrubber/flare system	0.015	44.57

**[CO-27-92-12, Condition III.2. (State-Enforceable only) (242A)]**

4.1.7. If the emissions of any Toxic Air Pollutant are discovered that have not been addressed by the Rule 27 Consent Order, the Permittee shall notify the Director within fifteen (15) days of such discovery. Unless the Director determines these emissions to be insignificant, the Permittee shall submit a Compliance Program for control of this emission within sixty (60) days of the date of such notification.

**[CO-27-92-12, Condition III.5. (State-Enforceable only)]**

4.1.8. Particulate matter emissions for the Flare (242A) shall not exceed 37.9 lbs/hr. Particulate matter emissions from the Incinerator (242D) shall not exceed 0.63 lbs/hr.

**[45CSR§6-4.1. (242A and 242D)]**

4.1.9. Emission of Visible Particulate Matter --No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater.  
[45CSR§6-4.3. (242A, 242D)]

4.1.10. The provisions of Condition 4.1.9 shall not apply to smoke which is less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per start-up.  
[45CSR§6-4.4. (242A, 242D)]

4.1.11. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.  
[45CSR§6-4.6 (242A, 242D)]

4.1.12. **Group 1 Process Vents.** The permittee shall reduce emissions of organic HAP from Group 1 process vents through either (1) or (2) below.

(1) The permittee may use a flare. The flare shall comply with the requirements of 40 C.F.R. §63.11(b).

(2) Reduce emissions of total organic hazardous air pollutants by 98 weight-percent or to a concentration of 20 parts per million by volume, whichever is less stringent. For combustion devices, the emission reduction or concentration shall be calculated on a dry basis, corrected to 3-percent oxygen, and compliance can be determined by measuring either organic hazardous air pollutants or total organic carbon using the procedures in 40 C.F.R. §63.116.

(i) Compliance with paragraph (2) of this section may be achieved by using any combination of combustion, recovery, and/or recapture devices, except that a recovery device may not be used to comply with paragraph (2) of this section by reducing emissions of total organic hazardous air pollutants by 98 weight-percent, except as provided in paragraph (2)(ii) of this section.

(ii) An owner or operator may use a recovery device, alone or in combination with one or more combustion or recapture devices, to reduce emissions of total organic hazardous air pollutants by 98 weight-percent if all the conditions of paragraphs (a)(2)(ii)(A) through (a)(2)(ii)(D) of this section are met.

(A) The recovery device (and any combustion device or recapture device which operates in combination with the recovery device to reduce emissions of total organic hazardous air pollutants by 98 weight-percent) was installed before the date of proposal of 40CFR 63 Subpart G applicable to process vents in the chemical manufacturing process unit.

(B) The recovery device that will be used to reduce emissions of total organic hazardous air pollutants by 98 weight-percent is the last recovery device before emission to the atmosphere.

(C) The recovery device, alone or in combination with one or more combustion or recapture devices, is capable of reducing emissions of total organic hazardous air pollutants by 98 weight-percent, but is not capable of reliably reducing emissions of total organic hazardous air pollutants to a concentration of 20 parts per million by volume.

(D) If the owner or operator disposed of the recovered material, the recovery device would comply with the requirements of 40CFR63 Subpart G for recapture devices.

[45CSR34; 40 C.F.R. §§63.113(a), 63.113(a)(1), and 63.113(a)(2)]  
(Emission Unit: 242A and 242D)

- 4.1.13. Hydrochloric acid shall not be released from the Flare (242A) in a concentration greater than 210 milligrams per dry cubic meter.  
**[45CSR§7-4.2 (242A)]**
- 4.1.14. No person shall circumvent the provisions of Condition 4.1.13 by adding additional gas to any exhaust or group of exhausts for the purpose of reducing the stack gas concentration.  
**[45CSR§7-4.3 (242A)]**
- 4.1.15. To ensure proper operation of the Scrubbers 242B, 242C, and 242E, the Permittee shall operate them as follows:
- Scrubber 242B
1. The Scrubber shall be operated with a scrubber liquor flow rate of at least 91 gallons per minute.
  2. The Scrubber shall be operated with a greater than 2% caustic solution in the scrubber liquor flow.
- Scrubber 242C
1. The Scrubber shall be operated with a scrubber liquor flow rate of at least 900,000 lbs/hr.
  2. The Scrubber shall be operated with a greater than 5% caustic solution in the scrubber liquor flow.
- Scrubber 242E
1. The Scrubber shall be operated with a scrubber liquor flow rate of at least 20 gallons per minute.
  2. The Scrubber shall be operated with a solution with a minimum pH of 8 in the scrubber liquor flow.  
**[45CSR13, Permit R13-1590 Application (242B, 242C, 242E)]**
- 4.1.16. The Permittee shall operate the Incinerator 242D at a minimum of 760 degrees Celsius when used as a control device.  
**[45CSR13, Permit R13-1590 Application (242D)]**

## 4.2. Monitoring Requirements

- 4.2.1. The permittee shall monitor the following to ensure compliance with Condition 4.1.3 and 4.1.15:
- Scrubber 242B
1. Measure the caustic concentration of the scrubber liquor once per day.
  2. Continuously monitor the liquor flow rate
- Scrubber 242E
1. Continuously monitor the pH of the scrubber liquor.
  2. Continuously monitor the liquor flow rate.
- Scrubber 242C
1. Measure the caustic concentration of the scrubber liquor once per day.
  2. Continuously monitor the liquor flow rate.
- Scrubber C-471
1. Measure the caustic concentration of the scrubber liquor once per day.
  2. Continuously monitor the liquor flow rate.  
**[45CSR§30-5.1.c (242B, 242E, 242C, C-471)]**
- 4.2.2. The permittee shall monitor the following to ensure compliance with the Flare 242A and Incinerator 242D:
1. The permittee shall provide continuous monitoring of the flare flame presence in the Flare and Incinerator.
  2. The permittee shall continuously monitor the gas flow rate to the Flare and Incinerator.
  3. The permittee shall continuously monitor the temperature of the Incinerator.  
**[45CSR§30-5.1.c (242A and 242D)]**

4.2.3. For purposes of demonstrating compliance with Condition 4.1.9 of this permit, the permittee shall conduct visible emission checks of each emission point subject to an opacity limit once per month during periods of normal unit operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with 40 C.F.R. 60 Appendix A, Method 9 within 48 hours. If the Method 9 test results show the opacity to be greater than the limit, then an evaluation to determine the cause of the exceedance shall be conducted within three (3) days, unless the cause of the exceedance is corrected within 24 hours. If no visible emissions are observed after four consecutive months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained in accordance with Condition 3.4.2 of this permit and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22 or Method 9 test, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.

**[45CSR§30-5.1.c (242A, 242D)]**

4.2.4. **Group 1 Process Vents.** To demonstrate compliance with 4.1.12 for Group 1 process vents using a flare or incinerator, the permittee shall install monitoring equipment as described below:

(1) Where an incinerator is used, a temperature monitoring device equipped with a continuous recorder is required.

(i) Where an incinerator other than a catalytic incinerator is used, a temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.

(2) Where a flare is used, the following monitoring equipment is required: a device (including but not limited to a thermocouple, ultra-violet beam sensor, or infrared sensor) capable of continuously detecting the presence of a pilot flame shall be installed, calibrated, maintained, and operated according to manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

**[45CSR34; 40 C.F.R. §§63.114(a), 63.114(a)(1), and 63.114(a)(2)]**

*(Emission Unit: 242A and 242D)*

- 4.2.5. **Group 1 Process Vents.** The permittee shall comply with 4.2.5.1 or 4.2.5.2 for any bypass line between the origin of the gas stream (i.e., at an air oxidation reactor, distillation unit, or reactor as identified in 40 C.F.R. §63.107(b)) and the point where the gas stream reaches the process vent, as described in 40 C.F.R. §63.107, that could divert the gas stream directly to the atmosphere. Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes are not subject to this requirement.

[45CSR34; 40 C.F.R. §63.114(d)]

- 4.2.5.1. Properly install, maintain and operate a flow indicator that takes a reading at least once every 15 minutes. Records shall be generated as specified in 4.4.3.3. The flow indicator shall be installed at the entrance to any by-pass line that could divert the gas stream to the atmosphere.

[45CSR34; 40 C.F.R. §63.114(d)(1)]

- 4.2.5.2. Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the non-diverting position and the gas stream is not diverted through the bypass line.

[45CSR34; 40 C.F.R. §63.114(d)(2)]

*(Emission Unit: 242A and 242D)*

### 4.3. Testing Requirements

- 4.3.1. **40CFR63, Subpart H Testing Requirements for Equipment Leaks.** The permittee shall comply with all applicable test methods and procedures of 40CFR63, Subpart H – “National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks” as specified in 40CFR§63.180 (Test methods and procedures).

[45CSR34; 40CFR63, Subpart H; 40CFR§63.180]

- 4.3.2. **45CSR§21-37 Testing Requirements for Equipment Leaks.** The permittee shall comply with all applicable test methods and procedures of 45CSR§21-37 – “Leaks from Synthetic Organic Chemical, Polymer, and Resin Manufacturing Equipment” as specified in 45CSR§21-37.9. To the extent that implementation of the requirements of 40CFR60, 40CFR61, or 40CFR63 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-R21-97-4, III.2 (State-Enforceable only)]

- 4.3.3. The permittee shall comply with all applicable provisions of 45CSR§21-41 regarding test methods and compliance procedures to demonstrate compliance with 4.1.5, except as otherwise approved by the Director.

[45CSR§21-41; CO-R21-97-4, III.6]

### 4.4. Recordkeeping Requirements

- 4.4.1. The permittee shall retain detailed records associated with the monitoring program required under Conditions 4.1.3 and 4.1.4 for the most recent three (3) year period and such records or an acceptable summary report of such data shall be made available to the Director or his duly authorized representative upon request at any reasonable time.

[45CSR13, Permit R13-1590, Condition B.3.]

4.4.2. The permittee shall do the following regarding the Flare 242A and Incinerator 242D:  
 Records shall be kept of all periods of operation during which the flare pilot flame is absent during operations.  
 Records shall be kept of natural gas usage for the Flare 242A and Incinerator 242D.  
**[45CSR§30-5.1.c (242A and 242D)]**

4.4.3. **Group 1 Process Vents.** To demonstrate compliance with 4.1.12 for Group 1 process vents using a flare or thermal incinerator, the permittee shall keep the following records up-to-date and readily accessible:  
**[45CSR34; 40 C.F.R. §63.118(a)]**

4.4.3.1. Continuous records of the equipment operating parameters specified to be monitored under 4.2.4 and listed in table 3 of 40 C.F.R. 63, Subpart G. For flares, hourly records and records of pilot flame outages specified in table 3 of 40 C.F.R. 63, Subpart G shall be maintained in place of continuous records.

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

Control device	Parameters to be monitored	Recordkeeping and reporting requirements for monitored parameters
Flare	Presence of a flame at the pilot light [63.114(a)(2)]	1. Hourly records of whether the monitor was continuously operating and whether the pilot flame was continuously present during each hour.
		2. Record and report the presence of a flame at the pilot light over the full period of the compliance determination – NCS.
		3. Record the times and durations of all periods when all pilot flames are absent or the monitor is not operating.
		4. Report the times and durations of all periods when all pilot flames of a flare are absent – PR.
Thermal Incinerator	Firebox temperature [63.114(a)(1)(i)]	1. Continuous Records
		2. Record and report the firebox temperature over the full period of the performance test – NCS.
		3. Record the daily average firebox temperature for each operating day.
		4. Report all daily average temperatures that are outside the range established in the NCS or operating permit and all operating days when insufficient monitoring data are collected – PR.
All control devices	Presence of flow diverted to the atmosphere from the control device [63.114(d)(1)]	1. Hourly records of whether the flow indicator was operating and whether diversion was detected at any time during each hour.
		2. Record and report the times and durations of all periods when the vent stream is diverted through a bypass line or the monitor is not operating – PR.

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

PR = Periodic Reports described in 40 C.F.R. §63.152.

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

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

**[45CSR34; 40 C.F.R. §63.118(a)(2)]**

4.4.3.3. Hourly records of whether the flow indicator specified under 4.2.5.1 was operating and whether a diversion was detected at any time during the hour, as well as records of the times and durations of all periods when the gas stream is diverted to the atmosphere or the monitor is not operating.

**[45CSR34; 40 C.F.R. §63.118(a)(3)]**

4.4.3.4. Where a seal mechanism is used to comply with Condition 4.2.5.2, hourly records of flow are not required. In such cases, the owner or operator shall record that the monthly visual inspection of the seals or closure mechanism has been done, and shall record the duration of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has broken.

**[45CSR34; 40 C.F.R. §63.118(a)(4)]**

*(Emission Unit: 242A, 242D)*

4.4.4. **Group 1 Process Vents.** Each owner or operator subject to the control provisions for Group 1 process vents in 4.1.12 shall:

**[45CSR34; 40 C.F.R. §63.117(a)]**

4.4.4.1. Keep an up-to-date, readily accessible record of the data specified in 4.4.4.1.a through 4.4.4.1.d submitted as part of the Notification of Compliance Status report dated September 15, 1997.

**[45CSR34; 40 C.F.R. §63.117(a)(1)]**

a. Record and report the following when using a combustion device to achieve a 98 weight percent reduction in organic HAP or an organic HAP concentration of 20 parts per million by volume, as specified in §63.113(a)(2):

**[45CSR34; 40 C.F.R. §63.117(a)(4)]**

i. The parameter monitoring results for incinerators, catalytic incinerators, boilers or process heaters specified in table 3 of 40CFR63 Subpart G, and averaged over the same time period of the performance testing.

**[45CSR34; 40 C.F.R. §63.117(a)(4)(i)]**

ii. For an incinerator, the percent reduction of organic HAP or TOC achieved by the incinerator determined as specified in §63.116(c), or the concentration of organic HAP or TOC (parts per million by volume, by compound) determined as specified in §63.116(c) at the outlet of the incinerator on a dry basis corrected to 3 percent oxygen.

**[45CSR34; 40 C.F.R. §63.117(a)(4)(ii)]**

b. Flare design (i.e., steam-assisted, air-assisted, or non-assisted);

**[45CSR34; 40 C.F.R. §63.117(a)(5)(i)]**

c. All visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required by 40 C.F.R. §63.116(a).

**[45CSR34; 40 C.F.R. §63.117(a)(5)(ii)]**

- d. All periods during the compliance determination when the pilot flame is absent.  
**[45CSR34; 40 C.F.R. §63.117(a)(5)(iii)]**  
(Emission Unit: 242A, 242D)

- 4.4.5. **40CFR63, Subpart H Recordkeeping Requirements for Equipment Leaks.** The permittee shall comply with all applicable recordkeeping requirements of 40CFR63, Subpart H – “National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks” as specified in 40CFR§63.181 (Recordkeeping requirements).  
**[45CSR34; 40CFR63, Subpart H; 40CFR§63.181]**

#### **4.5. Reporting Requirements**

- 4.5.1. All reports and information required to be submitted to US EPA via Condition 4.1.4 shall also be submitted to the Director of the Division of Air Quality.  
**[45CSR13, Permit R13-1590, Condition B.1 and B.2.]**
- 4.5.2. Reports of excess emissions. -- Except as provided in Condition 4.5.3, the owner or operator of any facility containing sources subject to 45CSR§21-5 shall, for each occurrence of excess emissions expected to last more than 7 days, within 1 business day of becoming aware of such occurrence, supply the Director by letter with the following information:
- a. The name and location of the facility;
  - b. The subject sources that caused the excess emissions;
  - c. The time and date of first observation of the excess emissions; and
  - d. The cause and expected duration of the excess emissions.
  - e. For sources subject to numerical emission limitations, the estimated rate of emissions (expressed in the units of the applicable emission limitation) and the operating data and calculations used in determining the magnitude of the excess emissions; and
  - f. The proposed corrective actions and schedule to correct the conditions causing the excess emissions.  
**[45CSR§21-5.2]**
- 4.5.3. Variance. -- If the provisions of this regulation cannot be satisfied due to repairs made as the result of routine maintenance or in response to the unavoidable malfunction of equipment, the Director may permit the owner or operator of a source subject to this regulation to continue to operate said source for periods not to exceed 10 days upon specific application to the Director. Such application shall be made prior to the making of repairs and, in the case of equipment malfunction, within 24 hours of the equipment malfunction. Where repairs will take in excess of 10 days to complete, additional time periods may be granted by the Director. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director. During such time periods, the owner or operator shall take all reasonable and practicable steps to minimize VOC emissions.  
**[CO-R21-97-4 (Condition III.3) and 45CSR§21-9.3]**
- 4.5.4. The permittee shall submit Periodic Reports as described in 40 C.F.R. §63.152(c).  
**[45CSR34; 40CFR§§63.152(a)(4) and 63.152(c)]**

- 4.5.5. The permittee shall submit reports of start-up, shutdown, and malfunction required by 40CFR§63.10(d)(5). The start-up, shutdown and malfunction reports may be submitted on the same schedule as the Periodic Reports required under 40CFR§63.152(c).  
**[45CSR34; 40CFR§§63.152(a)(5) and 63.152(d)(1)]**
- 4.5.6. **Group 1 Process Vents.** If any subsequent TRE determinations or performance tests are conducted after submittal of the Notification of Compliance Status on September 15, 1997, the data in 4.4.4.1.a through 4.4.4.1.c shall be reported in the next Periodic Report as specified in 40 C.F.R. §63.152(c).  
**[45CSR34; 40 C.F.R. §63.117(a)(3)]**  
(Emission Unit: 242A)
- 4.5.7. **Group 1 Process Vents.** The permittee shall submit to the Administrator Periodic Reports of the following recorded information according to the schedule in 40 C.F.R. §63.152(c).  
**[45CSR34; 40 C.F.R. §§63.118(f), 63.152(a), 63.152(a)(4), and 63.152(c)]**
- 4.5.7.1. For Group 1 points, reports of the duration of periods when monitoring data is not collected for each excursion caused by insufficient monitoring data as defined in 40 C.F.R. §63.152(c)(2)(ii)(A).  
**[45CSR34; 40 C.F.R. §63.118(f)(2)]**
- 4.5.7.2. Reports of the times and durations of all periods recorded under 4.4.3.3 when the gas stream is diverted to the atmosphere through a bypass line.  
**[45CSR34; 40 C.F.R. §63.118(f)(3)]**
- 4.5.7.3. Reports of the times and durations of all periods recorded under 4.4.3.2 in which all pilot flames of a flare were absent when used as a control device.  
**[45CSR34; 40 C.F.R. §63.118(f)(5)]**
- 4.5.7.4. Reports of all periods recorded under 4.4.3.4 in which the seal mechanism is broken, the bypass line valve position has changed, or the key to unlock the bypass line valve was checked out.  
**[45CSR34; 40 C.F.R. §63.118(f)(4)]**  
(Emission Units: 242A)
- 4.5.8. **40CFR63, Subpart H Reporting Requirements for Equipment Leaks.** The permittee shall comply with all applicable reporting requirements of 40CFR63, Subpart H – “National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks” as specified in 40CFR§63.182 (Reporting requirements).  
**[45CSR34; 40CFR63, Subpart H; 40CFR§63.182]**

#### 4.6. Compliance Plan

N/A

## 5.0. Source-Specific Requirements [MIC]

### 5.1. Limitations and Standards

5.1.1. The Permittee shall not exceed 14.5 Production Units of MIC per hour or 58.4 Production Units of Muriatic Acid per hour.

**[45CSR13, Permit Application No. R13-1300]**

5.1.2. The MIC/Sevin Process Area 242 is subject to the following emission limitations:

Emission Point ID	Control Device	Control Device Efficiency %	Maximum Hours of Operation	Maximum Allowable VOC Emissions	
				(lbs/hr)	(tons/yr)
T4867 Feed Tank	242A	98	8424	0.162	0.68
C247 Unit Dump Tank 4874	242A	98	8424	0.84	3.54
T4851 Field Storage Tank	242A	98	8424	0.7	2.95
T4852 Field Storage Tank	242A	98	8424	0.7	2.95
T4853 Field Storage Tank	242A	98	8424	0.7	2.95
E205 Absorber Vent Condenser	242D/242E	99.6/0.9	4704	0.62	1.46
	242B/242A	0.9/98			
E155 Residue Treater Vent Condenser	242D/242E	99.6/0.9	2744	8.34	11.44
	242B/242A	0.9/98			
T4868 Dry Chloroform Tank	242D/242E	99.6/0.9	8424	0.518	2.18
	242B/242A	0.9/98			
T4879 Fresh Chloroform Tank	242D/242E	99.6/0.9	8424	1.294	5.66
	242B/242A	0.9/98			
Equipment Vents During Process, Incinerator, and Flare Shutdown	242B	0.9	72	19.82	0.71

**[45CSR§21-37, CO-21-97-4, Condition III.1. (State-Enforceable only) (242A, 242D/242E, 242B/242A, 242B)]**

5.1.3. Carbon Tetrachloride and Chloroform emissions from the MIC Process shall not exceed the following:

Emission Point	Pollutant	Allowable Emissions	
		(lbs/hr)	(lbs/yr)
242A	Carbon Tetrachloride	<0.01	<0.01
	Chloroform	0.02	69
242E	Carbon Tetrachloride	N/A	652
	Chloroform	4.87	6,952
Fugitive	Carbon Tetrachloride	N/A	604
	Chloroform	N/A	29,565

**[CO-27-92-12, Condition III.2. (State-Enforceable only) (242A, 242E)]**

5.1.4. If the emissions of any Toxic Air Pollutant are discovered that have not been addressed by the Rule 27 Consent Order, the Permittee shall notify the Director within fifteen (15) days of such discovery. Unless the Director determines these emissions to be insignificant, the Permittee shall submit a Compliance Program for control of this emission within sixty (60) days of the date of such notification.

**[CO-27-92-12, Condition III.5. (State-Enforceable only)]**

5.1.5. The Incinerator/Scrubber system (242D/242E) shall have a destruction efficiency for Chloroform of not less than 99%.

**[CO-11-88-10, Condition III.5. (242D/242E)]**

5.1.6. The Permittee shall operate the Incinerator/Scrubber system (242D/242E) described in Condition 5.1.5 at all times when the production unit is in operation, excepting only periods of emergency repairs for the control equipment and unanticipated control equipment failure for reasons beyond the reasonable control of the Permittee. The Permittee shall provide the Director with notice of any unanticipated control equipment failure which lasts more than 12 hours. At all times when the control equipment is not operating, the chloroform emissions from the production unit shall be diverted to a registered flare with the understanding that any variances required for emissions of hydrogen chloride cause by routing of the chloroform to the flare are hereby authorized by the Division. In the event that both the flare and the control equipment are inoperable, the production unit shall be shut down as expeditiously as practicable. It is the clear intent of the Division that the Permittee shall not begin treatment of residues when the control equipment is not in operation and the treatment of residues shall cease as expeditiously as practicable in the event that the control equipment becomes inoperable during such treatment. The Permittee may however treat such residues, even though the control equipment is inoperable, provided that the chloroform emissions are directed to the Flare(242A) and that the Permittee immediately requests a variance from the Director for such time that the control equipment is not operable. Such request shall include a statement describing the reason for control equipment inoperative status, the reason for treating the residue at that time and an expedited plan for returning the control equipment to operational status.

**[CO-11-88-10, Condition IV.7. (242D/242E, 242A)]**

5.1.7. Hydrochloric acid shall not be released from the Flare (242A) in a concentration greater than 210 milligrams per dry cubic meter.

**[45CSR§7-4.2 (242A)]**

5.1.8. No person shall circumvent the provisions of Condition 5.1.7 by adding additional gas to any exhaust or group of exhausts for the purpose of reducing the stack gas concentration.

**[45CSR§7-4.3 (242A)]**

- 5.1.9. To ensure proper operation of the Scrubbers 242B, 242C, and 242E, the Permittee shall operate them as follows:
- Scrubber 242B
1. The Scrubber shall be operated with a scrubber liquor flow rate of at least 91 gallons per minute.
  2. The Scrubber shall be operated with a greater than 2% caustic solution in the scrubber liquor flow.
- Scrubber 242C
1. The Scrubber shall be operated with a scrubber liquor flow rate of at least 900,000 lbs/hr.
  2. The Scrubber shall be operated with a greater than 5% caustic solution in the scrubber liquor flow.
- Scrubber 242E
1. The Scrubber shall be operated with a scrubber liquor flow rate of at least 20 gallons per minute.
  2. The Scrubber shall be operated with a solution with a minimum pH of 8 in the scrubber liquor flow.
- [45CSR13, Permit R13-1590 Application (242B, 242C, 242E)]**
- 5.1.10. The Permittee shall operate the Incinerator 242D at a minimum of 760 degrees Celsius when used as a control device.  
**[45CSR13, Permit R13-1590 Application (242D)]**
- 5.1.11. Particulate matter emissions for the Flare (242A) shall not exceed 37.9 lbs/hr. Particulate matter emissions from the Incinerator (242D) shall not exceed 0.63 lbs/hr.  
**[45CSR§6-4.1. (242A and 242D)]**
- 5.1.12. Emission of Visible Particulate Matter --No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater.  
**[45CSR§6-4.3. (242A and 242D)]**
- 5.1.13. The provisions of Condition 5.1.12 shall not apply to smoke which is less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per start-up.  
**[45CSR§6-4.4. (242A and 242D)]**
- 5.1.14. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.  
**[45CSR§6-4.6 (242A and 242D)]**
- 5.1.15. **Group 1 Process Vents.** The permittee shall reduce emissions of organic HAP from Group 1 process vents through either (1) or (2) below.
- (1) The permittee may use a flare. The flare shall comply with the requirements of 40 C.F.R. §63.11(b).
  - (2) Reduce emissions of total organic hazardous air pollutants by 98 weight-percent or to a concentration of 20 parts per million by volume, whichever is less stringent. For combustion devices, the emission reduction or concentration shall be calculated on a dry basis, corrected to 3-percent oxygen, and compliance can be determined by measuring either organic hazardous air pollutants or total organic carbon using the procedures in §63.116.
    - (i) Compliance with paragraph (2) of this section may be achieved by using any combination of combustion, recovery, and/or recapture devices, except that a recovery device may not be used to comply with paragraph (2) of this section by reducing emissions of total organic hazardous air pollutants by 98 weight-percent, except as provided in paragraph (2)(ii) of this section.

(ii) An owner or operator may use a recovery device, alone or in combination with one or more combustion or recapture devices, to reduce emissions of total organic hazardous air pollutants by 98 weight-percent if all the conditions of paragraphs (2)(ii)(A) through (2)(ii)(D) of this section are met.

(A) The recovery device (and any combustion device or recapture device which operates in combination with the recovery device to reduce emissions of total organic hazardous air pollutants by 98 weight-percent) was installed before the date of proposal of 40CFR63 Subpart G applicable to process vents in the chemical manufacturing process unit.

(B) The recovery device that will be used to reduce emissions of total organic hazardous air pollutants by 98 weight-percent is the last recovery device before emission to the atmosphere.

(C) The recovery device, alone or in combination with one or more combustion or recapture devices, is capable of reducing emissions of total organic hazardous air pollutants by 98 weight-percent, but is not capable of reliably reducing emissions of total organic hazardous air pollutants to a concentration of 20 parts per million by volume.

(D) If the owner or operator disposed of the recovered material, the recovery device would comply with the requirements of 40CFR Subpart G for recapture devices.

**[45CSR34; 40 C.F.R. §§63.113(a), 63.113(a)(1), and 63.113(a)(2)]**  
(Emission Unit: 242A and 242D)

5.1.16. **Group 1 Storage Vessel (Closed Vent System and Control Device).** For each Group 1 storage vessel storing a liquid for which the maximum true vapor pressure of the total organic hazardous air pollutants in the liquid is less than 76.6 kilopascals, the owner or operator shall reduce hazardous air pollutants emissions to the atmosphere by operating and maintaining a closed vent system and control device in accordance with 5.1.16.1 through 5.1.16.5.

**[45CSR34; 40 C.F.R. §§63.119(a)(1) and 63.119(e)]**

5.1.16.1. Except as provided in 5.1.16.2, the control device shall be designed and operated to reduce inlet emissions of total organic HAP by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements of 40 C.F.R. §63.11(b).  
**[45CSR34; 40 C.F.R. §§63.119(e)(1)]**

5.1.16.2. If the owner or operator can demonstrate that a control device installed on a storage vessel on or before December 31, 1992 is designed to reduce inlet emissions of total organic HAP by greater than or equal to 90 percent but less than 95 percent, then the control device is required to be operated to reduce inlet emissions of total organic HAP by 90 percent or greater.  
**[45CSR34; 40 C.F.R. §63.119(e)(2)]**

5.1.16.3. Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of 5.1.16.1 or 5.1.16.2, as applicable, shall not exceed 240 hours per year.  
**[45CSR34; 40 C.F.R. §63.119(e)(3)]**

5.1.16.4. The specifications and requirements in 5.1.16.1 and 5.1.16.2 for control devices do not apply during periods of planned routine maintenance.  
**[45CSR34; 40 C.F.R. §63.119(e)(4)]**

5.1.16.5. The specifications and requirements in 5.1.16.1 and 5.1.16.2 for control devices do not apply during a control system malfunction.  
**[45CSR34; 40 C.F.R. §63.119(e)(5)]**  
(Emission Units: T-4879, T-4851, T-4852, T-4853, C247)

- 5.1.17. **Group 2 Storage Vessels.** For each Group 2 storage vessel, the owner or operator shall comply with the recordkeeping requirements in 5.4.3.  
**[45CSR34; 40 C.F.R. §63.119(a)(3)]**  
(Emission Units: C-A242, C-B242, C-C242)
- 5.1.18. **40CFR63, Subpart H Requirements for Equipment Leaks.** The permittee shall comply with all applicable standards of 40CFR63, Subpart H – “National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks.” The pertinent equipment leak standards include 40CFR§63.162 (Standards: General), 63.163 (Standards: Pumps in light liquid service), 63.165 (Standards: Pressure relief devices in gas/vapor service), 63.166 (Standards: Sampling connection systems), 63.168 (Standards: Valves in gas/vapor service and in light liquid service), 63.169 (Standards: Pumps, valves, connectors, and agitators in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service), and 63.174 (Standards: Connectors in gas/vapor service and in light liquid service).  
**[45CSR§21-37, CO-21-97-4, Condition III.2 (State-Enforceable only), CO-27-92-12, Condition III.3(State-Enforceable only), 45CSR34; 40CFR63, Subpart H; 40CFR§§63.162, 63.163, 63.165, 63.166, 63.168, 63.169, and 63.174]**

5.1.19. Emissions from the MIC Area shall not exceed the following:

Emission Point	Pollutant	(lbs/hr)	(lbs/yr)
242A	Methyl Isocyanate	0.41	561
242A	Phosgene	<0.01	65
242A	Chlorine	<0.01	34
242A	Dichloromethane	0.03	18
242A	Hydrogen Chloride <sup>1</sup>	3.8	32,011
242A	PM	<0.01	51
242A	Sulfur Dioxide	<0.01	34
242A	Nitrogen Oxides	11.9	100,246
242A	Methyl Chloride	<0.01	0.8
242A	Chloroform	0.02	69
242A	Carbon Monoxide	3.48	29,316
242A	Carbon Tetrachloride	<0.01	<0.01
242A	Hydrocarbons	<0.01	<0.01
242A	Chlorobromomethane	<0.01	<0.01
242B	Chloroform <sup>2</sup>	20	1,360
242C	Chloroform <sup>2</sup>	2.2	528
242E	Hydrogen Chloride	0.33	1,664
242E	Chlorine	1.0	126
242E	Chloroform	4.87	6,952
242E	Particulate Matter	<0.01	10
242E	Sulfur Dioxide	<0.01	6
242E	Nitrogen Oxides	0.12	19,861
242E	Carbon Monoxide	0.024	183
242E	Carbon Tetrachloride	0.6	652
242F	Sodium Hydroxide	<0.01	<0.01
242G	Sodium Hydroxide	<0.01	<0.01

1 - Includes HCl emissions from other sources besides the MIC/Sevin Process Area.

2 – Occurs only during emergency shutdown of both Incinerator 242D and Flare 242A. See Condition 5.1.6. [45CSR13, Permit Application No. R13-1300 (242A, 242B, 242C, 242E, 242F, and 242G)]

## 5.2. Monitoring Requirements

5.2.1. The permittee shall monitor the following to ensure compliance with Condition 5.1.9:

Scrubber 242B

1. Measure the caustic concentration of the scrubber liquor once per day.
2. Continuously monitor the liquor flow rate

Scrubber 242C

1. Measure the caustic concentration of the scrubber liquor once per day.
2. Continuously monitor the liquor flow rate.

Scrubber 242E

1. Continuously monitor the pH of the scrubber liquor.
2. Continuously monitor the liquor flow rate.

**[45CSR§30-5.1.c (242B and 242E)]**

- 5.2.2. The permittee shall monitor the following to ensure compliance with Condition 5.1.11 for the Flare 242A and Condition 5.1.10 and 5.1.11 for Incinerator 242D:

1. The permittee shall provide continuous monitoring of the flare flame presence in the Flare and Incinerator.
2. The permittee shall continuously monitor the gas flow rate to the Flare and Incinerator.
3. The permittee shall continuously monitor the temperature of the Incinerator.

**[45CSR§30-5.1.c (242A and 242D)]**

- 5.2.3. For purposes of demonstrating compliance with Condition 5.1.12 of this permit, the permittee shall conduct visible emission checks of each emission point subject to an opacity limit once per month during periods of normal unit operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with 40 C.F.R. 60 Appendix A, Method 9 within 48 hours. If the Method 9 test results show the opacity to be greater than the limit, then an evaluation to determine the cause of the exceedance shall be conducted within three (3) days, unless the cause of the exceedance is corrected within 24 hours. If no visible emissions are observed after four consecutive months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained in accordance with Condition 3.4.2 of this permit and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22 or Method 9 test, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.

**[45CSR§30-5.1.c (242A and 242D)]**

- 5.2.4. **Group 1 Process Vents.** To demonstrate compliance with 5.1.15 for Group 1 process vents using a flare or incinerator, the permittee shall install monitoring equipment as described below:

(1) Where an incinerator is used, a temperature monitoring device equipped with a continuous recorder is required.

(i) Where an incinerator other than a catalytic incinerator is used, a temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.

(2) Where a flare is used, the following monitoring equipment is required: a device (including but not limited to a thermocouple, ultra-violet beam sensor, or infrared sensor) capable of continuously detecting the presence of a pilot flame shall be installed, calibrated, maintained, and operated according to manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

**[45CSR34; 40 C.F.R. §§63.114(a), 63.114(a)(1), and 63.114(a)(2)]**

*(Emission Unit: 242A and 242D)*

- 5.2.5. **Group 1 Process Vents.** The permittee shall comply with 5.2.5.1 or 5.2.5.2 for any bypass line between the origin of the gas stream (i.e., at an air oxidation reactor, distillation unit, or reactor as identified in 40 C.F.R. §63.107(b)) and the point where the gas stream reaches the process vent, as described in 40 C.F.R. §63.107, that could divert the gas stream directly to the atmosphere. Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes are not subject to this requirement.

**[45CSR34; 40 C.F.R. §63.114(d)]**

- 5.2.5.1. Properly install, maintain and operate a flow indicator that takes a reading at least once every 15 minutes. Records shall be generated as specified in 5.4.1.3. The flow indicator shall be installed at the entrance to any by-pass line that could divert the gas stream to the atmosphere.

**[45CSR34; 40 C.F.R. §63.114(d)(1)]**

- 5.2.5.2. Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the non-diverting position and the gas stream is not diverted through the bypass line.

**[45CSR34; 40 C.F.R. §63.114(d)(2)]**

*(Emission Unit: 242A and 242D)*

- 5.2.6. **Group 1 Storage Vessels (Closed Vent System and Control Device).** To demonstrate compliance with 5.1.16 (storage vessel equipped with a closed vent system and control device) using a flare, the owner or operator shall comply with the requirements in 5.2.6.1 through 5.2.6.4.

**[45CSR34; 40 C.F.R. §63.120(e)]**

- 5.2.6.1. The owner or operator shall demonstrate compliance with the requirements of 5.1.16.3 (planned routine maintenance of a flare, during which the flare does not meet the specifications of 5.1.16.1, shall not exceed 240 hours per year) by including in each Periodic Report required by 40 C.F.R. §63.152(c) the information specified in 40 C.F.R. §63.122(g)(1).

**[45CSR34; 40 C.F.R. §63.120(e)(3)]**

- 5.2.6.2. The owner or operator shall continue to meet the general control device requirements specified in 40 C.F.R. §63.11(b).

**[45CSR34; 40 C.F.R. §63.120(e)(4)]**

- 5.2.6.3. Except as provided in 5.2.6.4, each closed vent system shall be inspected as specified in 40 C.F.R. §63.148. The inspections required to be performed in accordance with 40 C.F.R. §63.148(c) shall be done during filling of the storage vessel.

**[45CSR34; 40 C.F.R. §63.120(e)(5)]**

- 5.2.6.4. For any fixed roof tank and closed vent system that is operated and maintained under negative pressure, the owner or operator is not required to comply with the requirements specified in 40 C.F.R. §63.148.

**[45CSR34; 40 C.F.R. §63.120(e)(6)]**

*(Emission Units: T-4879, T-4851, T-4852, T-4853, C247)*

### 5.3. Testing Requirements

- 5.3.1. **40CFR63, Subpart H Testing Requirements for Equipment Leaks.** The permittee shall comply with all applicable test methods and procedures of 40CFR63, Subpart H – “National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks” as specified in 40CFR§63.180 (Test methods and procedures). **[45CSR34; 40CFR63, Subpart H; 40CFR§63.180]**
- 5.3.2. **45CSR§21-37 Testing Requirements for Equipment Leaks.** The permittee shall comply with all applicable test methods and procedures of 45CSR§21-37 – “Leaks from Synthetic Organic Chemical, Polymer, and Resin Manufacturing Equipment” as specified in 45CSR§21-37.9. To the extent that implementation of the requirements of 40CFR60, 40CFR61, or 40CFR63 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-R21-97-4, III.2 (State-Enforceable only)]**
- 5.3.3. The permittee shall comply with all applicable provisions of 45CSR§21-41 regarding test methods and compliance procedures to demonstrate compliance with 5.1.2, except as otherwise approved by the Director. **[45CSR§21-41; CO-R21-97-4, III.6]**

## 5.4. Recordkeeping Requirements

5.4.1. **Group 1 Process Vents.** To demonstrate compliance with 5.1.15 for Group 1 process vents using a flare or thermal incinerator, the permittee shall keep the following records up-to-date and readily accessible:  
**[45CSR34; 40 C.F.R. §63.118(a)]**

5.4.1.1. Continuous records of the equipment operating parameters specified to be monitored under 5.2.4 and listed in table 3 of 40 C.F.R. 63, Subpart G. For flares, hourly records and records of pilot flame outages specified in table 3 of 40 C.F.R. 63, Subpart G shall be maintained in place of continuous records.

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

Control device	Parameters to be monitored	Recordkeeping and reporting requirements for monitored parameters
Flare	Presence of a flame at the pilot light [63.114(a)(2)]	1. Hourly records of whether the monitor was continuously operating and whether the pilot flame was continuously present during each hour.
		2. Record and report the presence of a flame at the pilot light over the full period of the compliance determination – NCS.
		3. Record the times and durations of all periods when all pilot flames are absent or the monitor is not operating.
		4. Report the times and durations of all periods when all pilot flames of a flare are absent – PR.
Thermal Incinerator	Firebox temperature [63.114(a)(1)(i)]	1. Continuous Records
		2. Record and report the firebox temperature over the full period of the performance test – NCS.
		3. Record the daily average firebox temperature for each operating day.
		4. Report all daily average temperatures that are outside the range established in the NCS or operating permit and all operating days when insufficient monitoring data are collected – PR.
All control devices	Presence of flow diverted to the atmosphere from the control device [63.114(d)(1)]	1. Hourly records of whether the flow indicator was operating and whether diversion was detected at any time during each hour.
		2. Record and report the times and durations of all periods when the vent stream is diverted through a bypass line or the monitor is not operating – PR.

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

PR = Periodic Reports described in 40 C.F.R. §63.152.

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

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

**[45CSR34; 40 C.F.R. §63.118(a)(2)]**

5.4.1.3. Hourly records of whether the flow indicator specified under 5.2.5.1 was operating and whether a diversion was detected at any time during the hour, as well as records of the times and durations of all periods when the gas stream is diverted to the atmosphere or the monitor is not operating.

**[45CSR34; 40 C.F.R. §63.118(a)(3)]**

5.4.1.4. Where a seal mechanism is used to comply with Condition 5.2.5.2, hourly records of flow are not required. In such cases, the owner or operator shall record that the monthly visual inspection of the seals or closure mechanism has been done, and shall record the duration of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has broken.

**[45CSR34; 40 C.F.R. §63.118(a)(4)]**

*(Emission Units: 242A, 242B, 242C, and 242E)*

5.4.2. **Group 1 Process Vents.** Each owner or operator subject to the control provisions for Group 1 process vents in 5.1.15 shall:

**[45CSR34; 40 C.F.R. §63.117(a)]**

5.4.2.1. Keep an up-to-date, readily accessible record of the data specified in 5.4.2.1.a through 5.4.2.1.d submitted as part of the Notification of Compliance Status report dated September 15, 1997.

**[45CSR34; 40 C.F.R. §63.117(a)(1)]**

a. Record and report the following when using a combustion device to achieve a 98 weight percent reduction in organic HAP or an organic HAP concentration of 20 parts per million by volume, as specified in §63.113(a)(2):

**[45CSR34; 40 C.F.R. §63.117(a)(4)]**

i. The parameter monitoring results for incinerators, catalytic incinerators, boilers or process heaters specified in table 3 of 40CFR63 Subpart G, and averaged over the same time period of the performance testing.

**[45CSR34; 40 C.F.R. §63.117(a)(4)(i)]**

ii. For an incinerator, the percent reduction of organic HAP or TOC achieved by the incinerator determined as specified in §63.116(c), or the concentration of organic HAP or TOC (parts per million by volume, by compound) determined as specified in §63.116(c) at the outlet of the incinerator on a dry basis corrected to 3 percent oxygen.

**[45CSR34; 40 C.F.R. §63.117(a)(4)(ii)]**

b. Flare design (i.e., steam-assisted, air-assisted, or non-assisted);

**[45CSR34; 40 C.F.R. §63.117(a)(5)(i)]**

c. All visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required by 40 C.F.R. §63.116(a).

**[45CSR34; 40 C.F.R. §63.117(a)(5)(ii)]**

- d. All periods during the compliance determination when the pilot flame is absent.  
**[45CSR34; 40 C.F.R. §63.117(a)(5)(iii)]**  
(Emission Unit: 242A, 242D)
- 5.4.3. **Group 1 and Group 2 Storage Vessels.** Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation.  
**[45CSR34; 40 C.F.R. §63.123(a)]**  
(Emission Units: T-4879, T-4851, T-4852, T-4853, C247, C-A242, C-B242, and C-C242)
- 5.4.4. **Group 1 Storage Vessels (Closed Vent System and Control Device).** The permittee shall keep in a readily accessible location a record of the planned routine maintenance performed on the control device including the duration of each time the control device does not meet the specifications of 5.1.16.1 and 5.1.16.2, as applicable, due to the planned routine maintenance. Such record shall include the information specified in 5.4.4.1 and 5.4.4.2.  
**[45CSR34; 40 C.F.R. §§63.123(f) and 63.123(f)(2)]**
- 5.4.4.1. The first time of day and date the requirements of 5.1.16.1 or 5.1.16.2, as applicable, were not met at the beginning of the planned routine maintenance, and  
**[45CSR34; 40 C.F.R. §63.123(f)(2)(i)]**
- 5.4.4.2. The first time of day and date the requirements of 5.1.16.1 or 5.1.16.2, as applicable, were met at the conclusion of the planned routine maintenance.  
**[45CSR34; 40 C.F.R. §63.123(f)(2)(ii)]**  
(Emission Units: T-4879, T-4851, T-4852, T-4853, and C247)
- 5.4.5. **40CFR63, Subpart H Recordkeeping Requirements for Equipment Leaks.** The permittee shall comply with all applicable recordkeeping requirements of 40CFR63, Subpart H – “National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks” as specified in 40CFR§63.181 (Recordkeeping requirements).  
**[45CSR34; 40CFR63, Subpart H; 40CFR§63.181]**
- 5.4.6. **45CSR§21-37 Recordkeeping Requirements for Equipment Leaks.** The permittee shall comply with all applicable recordkeeping requirements of 45CSR§21-37 – “Leaks from Synthetic Organic Chemical, Polymer, and Resin Manufacturing Equipment” as specified in 45CSR§21-37.10, with the exception that all records shall be maintained for a period of five (5) years instead of three (3) years. To the extent that implementation of the requirements of 40 C.F.R. 60, 40 C.F.R. 61, or 40 C.F.R. 63 results in monitoring and repair, consistent with 45CSR§21-37, of all components in VOC service in any synthetic organic chemical, polymer, or resin manufacturing process unit, compliance with these federally enforceable standards will satisfy the requirements of 45CSR§21-37. **[45CSR§§21-37.1.c and 37.10 (State-Enforceable only); 45CSR§30-5.1.c; CO-R21-97-31, III.2 (State-Enforceable only); CO-R21-10A(97), III.1 (State-Enforceable only)]**
- 5.4.7. In order to demonstrate compliance with Condition 5.1.1, the Permittee shall maintain daily logs of the amount of MIC and Muriatic Acid produced. These daily totals shall be summarized into monthly reports tabulating the total for the month as well as a calendar annual 12 month total.  
**[45CSR§30-5.1.c]**
- 5.4.8. The permittee shall do the following regarding the Flare 242A and Incinerator 242D:  
Records shall be kept of all periods of operation during which the pilot flame is absent during MIC Production.  
Records shall be kept of natural gas usage for the Flare 242A and Incinerator 242D.  
**[45CSR§30-5.1.c (242A, 242D)]**

## 5.5. Reporting Requirements

- 5.5.1. Reports of excess emissions. -- Except as provided in Condition 5.5.2, 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:
- The name and location of the facility;
  - The subject sources that caused the excess emissions;
  - The time and date of first observation of the excess emissions; and
  - The cause and expected duration of the excess emissions.
  - 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
  - The proposed corrective actions and schedule to correct the conditions causing the excess emissions.  
**[45CSR§21-5.2]**
- 5.5.2. Variance. -- If the provisions of this regulation cannot be satisfied due to repairs made as the result of routine maintenance or in response to the unavoidable malfunction of equipment, the Director may permit the owner or operator of a source subject to this regulation to continue to operate said source for periods not to exceed 10 days upon specific application to the Director. Such application shall be made prior to the making of repairs and, in the case of equipment malfunction, within 24 hours of the equipment malfunction. Where repairs will take in excess of 10 days to complete, additional time periods may be granted by the Director. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director. During such time periods, the owner or operator shall take all reasonable and practicable steps to minimize VOC emissions.  
**[CO-R21-97-4 (Condition III.3) and 45CSR§21-9.3]**
- 5.5.3. The permittee shall submit Periodic Reports as described in 40 C.F.R. §63.152(c).  
**[45CSR34; 40CFR§§63.152(a)(4) and 63.152(c)]**
- 5.5.4. The permittee shall submit reports of start-up, shutdown, and malfunction required by 40CFR§63.10(d)(5). The start-up, shutdown and malfunction reports may be submitted on the same schedule as the Periodic Reports required under 40CFR§63.152(c).  
**[45CSR34; 40CFR§§63.152(a)(5) and 63.152(d)(1)]**
- 5.5.5. **Group 1 Process Vents.** If any subsequent TRE determinations or performance tests are conducted after submittal of the Notification of Compliance Status on September 15, 1997, the data in 5.4.2.1.a through 5.4.2.1.c shall be reported in the next Periodic Report as specified in 40 C.F.R. §63.152(c).  
**[45CSR34; 40 C.F.R. §63.117(a)(3)]**  
*(Emission Units: 242A, 242B, 242C, and 242E)*
- 5.5.6. **Group 1 Process Vents.** The permittee shall submit to the Administrator Periodic Reports of the following recorded information according to the schedule in 40 C.F.R. §63.152(c).  
**[45CSR34; 40 C.F.R. §§63.118(f), 63.152(a), 63.152(a)(4), and 63.152(c)]**

- 5.5.6.1. For Group 1 points, reports of the duration of periods when monitoring data is not collected for each excursion caused by insufficient monitoring data as defined in 40 C.F.R. §63.152(c)(2)(ii)(A).  
[45CSR34; 40 C.F.R. §63.118(f)(2)]
- 5.5.6.2. Reports of the times and durations of all periods recorded under 5.4.1.3 when the gas stream is diverted to the atmosphere through a bypass line.  
[45CSR34; 40 C.F.R. §63.118(f)(3)]
- 5.5.6.3. Reports of the times and durations of all periods recorded under 5.4.1.2 in which all pilot flames of a flare were absent.  
[45CSR34; 40 C.F.R. §63.118(f)(5)]
- 5.5.6.4. Reports of all periods recorded under 5.4.1.4 in which the seal mechanism is broken, the bypass line valve position has changed, or the key to unlock the bypass line valve was checked out.  
[45CSR34; 40 C.F.R. §63.118(f)(4)]  
(Emission Units: 242A, 242B, 242C, and 242E)

5.5.7. **Group 1 Storage Vessels (Closed Vent System and Control Device).** An owner or operator who elects to comply with 5.1.16 by installing a closed vent system and control device shall submit, as part of the next Periodic Report required by 40 C.F.R. §63.152(c), the information specified in 5.5.7.1 and 5.5.7.2.  
[45CSR34; 40 C.F.R. §§63.122(g) and 63.152(c)]

5.5.7.1. As required by 5.2.6.1, the Periodic Report shall include the information specified in 5.5.7.1.a and 5.5.7.1.b for those planned routine maintenance operations that would require the control device not to meet the requirements of 5.1.16.1 and 5.1.16.2, as applicable.  
[45CSR34; 40 C.F.R. §63.122(g)(1)]

- a. A description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6 months. This description shall include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.  
[45CSR34; 40 C.F.R. §63.122(g)(1)(i)]
- b. A description of the planned routine maintenance that was performed for the control device during the previous 6 months. This description shall include the type of maintenance performed and the total number of hours during those 6 months that the control device did not meet the requirements of 5.1.16.1 or 5.1.16.2, as applicable, due to planned routine maintenance.  
[45CSR34; 40 C.F.R. §63.122(g)(1)(ii)]

5.5.7.2. If a flare is used, the Periodic Report shall describe each occurrence when the flare does not meet the general control device requirements specified in 40 C.F.R. §63.11(b) and shall include the information specified in 5.5.7.2.a and 5.5.7.2.b.  
[45CSR34; 40 C.F.R. §63.122(g)(3)]

- a. Identification of the flare which does not meet the general requirements specified in 40 C.F.R. §63.11(b), and  
[45CSR34; 40 C.F.R. §63.122(g)(3)(i)]
- b. Reason the flare did not meet the general requirements specified in 40 C.F.R. §63.11(b).  
[45CSR34; 40 C.F.R. §63.122(g)(3)(ii)]

(Emission Units: T-4879, T-4851, T-4852, T-4853, C247)

- 5.5.8. **40CFR63, Subpart H Reporting Requirements for Equipment Leaks.** The permittee shall comply with all applicable reporting requirements of 40CFR63, Subpart H – “National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks” as specified in 40CFR§63.182 (Reporting requirements). **[45CSR34; 40CFR63, Subpart H; 40CFR§63.182]**

**5.6. Compliance Plan**

N/A

## 6.0. Source-Specific Requirements [Sevin]

### 6.1. Limitations and Standards

6.1.1. The Permittee shall not exceed the following usage rates:

Process Area	Material	Usage
Sevin	Naphtyl Chloroformate	41.2 Usage Units/hr
	Toluene	87.6 Usage Units/hr
	Monomethylamine	6.24 Usage Units/hr

**[45CSR13, Permit Application No. R13-223]**

6.1.2. The Permittee shall not exceed the following usage rates:

Process Area	Material	Usage
Sevin Distribution 260 (Sevin Storage Bins)	Sevin Powder	24.0 Usage Units/hr
Sevin Distribution 260 (Sevin Transfer System)	Sevin Powder	72.0 Usage Units/hr

**[45CSR13, Permit Application No. R13-226]**

6.1.3. The Permittee shall not exceed 25.0 Production Units of Sevin Insecticide per hour.

**[45CSR13, Permit Application No. R13-1300]**

6.1.4. The Permittee shall not exceed the following emission rates:

Process Area	Pollutant	lbs/hr	Emission Point
Sevin Distribution 260	Particulate Matter	<0.01	265A
Sevin Distribution 260	Particulate Matter	<0.01	265B
Sevin Distribution 260	Particulate Matter	<0.01	260F

**[Permit Application No. R13-226. Compliance with this limit will also show compliance with 45CSR§7-4.1, 45CSR13 (265A, 265B, 260F)]**

6.1.5. The Sevin Process Area 260 is subject to the following emission limitations:

Process Equipment	Emission Point ID	Control Device Efficiency %	Maximum Hours of Operation	Maximum Allowable VOC Emissions	
				(lbs/hr)	(tons/yr)
Hopper Vent	260C	98	8760	1.22	5.34
Misc. Tanks & Equipment	260A	98	8760	0.61	2.67
26014 (260E) Demister Tank	260E	98	8760	1.06	4.64
26008 (260I) Bird Centrifuge	260I	98	8760	1.94	8.50
T4601 Process Tank	260K	N/A	8760	15.1	0.11
T4602 Process Tank	260K	N/A	8760	9.3	0.11

**[45CSR§21-37, CO-21-97-4 (State-Enforceable only), Condition III.1. Compliance with this condition will also show compliance with the Hydrocarbon emission limits from Permit Application No. R13-223 (260C, 260A, 260E, 260I, 265I, 260K)]**

6.1.6. Benzene and Chloroform emissions from the Sevin Area shall not exceed the following:

Emission Point	Pollutant	Allowable Emissions	
		(lbs/hr)	(lbs/yr)
4615 (260A)	Benzene	0.25	6.9
	Chloroform	2.94	81.5
4603 (265C)	Benzene	0.48	11.8
	Chloroform	0.95	23.7
4601 (265D)	Benzene	0.36	7.3
	Chloroform	2.11	43.1
4619 (265G)	Benzene	0.18	31
	Chloroform	0.46	79.6

**[CO-27-92-12, Condition III.2. (State-Enforceable only) (4615, 4603, 4601, 4619)]**

6.1.7. If the emissions of any Toxic Air Pollutant are discovered that have not been addressed by the Rule 27 Consent Order, the Permittee shall notify the Director within fifteen (15) days of such discovery. Unless the Director determines these emissions to be insignificant, the Permittee shall submit a Compliance Program for control of this emission within sixty (60) days of the date of such notification.

**[CO-27-92-12, Condition III.5. (State-Enforceable only)]**

- 6.1.8. To ensure proper operation of the Scrubber 260A, the Permittee shall operate it as follows:  
Scrubber 260A
1. The Scrubber shall be operated with a scrubber liquor flow rate of at least 13,125 lbs/hr.
  2. The Scrubber shall be operated with a greater than 2% caustic solution in the scrubber liquor flow.  
**[45CSR13, Permit R13-1300 Application (260A)]**
- 6.1.9. The Permittee shall operate the Thermal Oxidizer 260K at a minimum of 1380 degrees Fahrenheit when used as a control device. The Thermal Oxidizer pilot light shall be active during all times it is being used as a control device.  
**[45CSR13, Permit R13-1300 Application (260K)]**
- 6.1.10. Particulate matter emissions for the Thermal Oxidizer (260K) shall not exceed 0.76 lbs/hr.  
**[45CSR§6-4.1. (260K)]**
- 6.1.11. Emission of Visible Particulate Matter --No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater.  
**[45CSR§6-4.3. (260K)]**
- 6.1.12. The provisions of Condition 6.1.11 shall not apply to smoke which is less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per start-up.  
**[45CSR§6-4.4. (260K)]**
- 6.1.13. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.  
**[45CSR§6-4.6. (260K)]**
- 6.1.14. **Group 1 Process Vents.** The permittee shall reduce emissions of organic HAP from Group 1 process vents as specified below:
- (2) Reduce emissions of total organic hazardous air pollutants by 98 weight-percent or to a concentration of 20 parts per million by volume, whichever is less stringent. For combustion devices, the emission reduction or concentration shall be calculated on a dry basis, corrected to 3-percent oxygen, and compliance can be determined by measuring either organic hazardous air pollutants or total organic carbon using the procedures in 40 C.F.R. §63.116.
    - (i) Compliance with paragraph (2) of this section may be achieved by using any combination of combustion, recovery, and/or recapture devices, except that a recovery device may not be used to comply with paragraph (2) of this section by reducing emissions of total organic hazardous air pollutants by 98 weight-percent, except as provided in paragraph (2)(ii) of this section.
    - (ii) An owner or operator may use a recovery device, alone or in combination with one or more combustion or recapture devices, to reduce emissions of total organic hazardous air pollutants by 98 weight-percent if all the conditions of paragraphs (2)(ii)(A) through (2)(ii)(D) of this section are met.
      - (A) The recovery device (and any combustion device or recapture device which operates in combination with the recovery device to reduce emissions of total organic hazardous air pollutants by 98 weight-percent) was installed before the date of proposal of 40CFR63 Subpart G applicable to process vents in the chemical manufacturing process unit.
      - (B) The recovery device that will be used to reduce emissions of total organic hazardous air pollutants by 98 weight-percent is the last recovery device before emission to the atmosphere.

(C) The recovery device, alone or in combination with one or more combustion or recapture devices, is capable of reducing emissions of total organic hazardous air pollutants by 98 weight-percent, but is not capable of reliably reducing emissions of total organic hazardous air pollutants to a concentration of 20 parts per million by volume.

(D) If the owner or operator disposed of the recovered material, the recovery device would comply with the requirements of 40CFR63 Subpart G for recapture devices.

**[45CSR34; 40 C.F.R. §§63.113(a) and 63.113(a)(2)]**

*(Emission Units: 260A, 260C, 260E, and 260I)*

- 6.1.15. **Group 2 Storage Vessels.** For each Group 2 storage vessel, the owner or operator shall comply with the recordkeeping requirements in 6.4.5.

**[45CSR34; 40 C.F.R. §63.119(a)(3)]**

*(Emission Units: 4601, 4602, 4603, 4604, 4608, 4615, 4619, 4623)*

- 6.1.16. **40CFR63, Subpart H Requirements for Equipment Leaks.** The permittee shall comply with all applicable standards of 40CFR63, Subpart H – “National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks.” The pertinent equipment leak standards include 40CFR§63.162 (Standards: General), 63.163 (Standards: Pumps in light liquid service), 63.165 (Standards: Pressure relief devices in gas/vapor service), 63.166 (Standards: Sampling connection systems), 63.168 (Standards: Valves in gas/vapor service and in light liquid service), 63.169 (Standards: Pumps, valves, connectors, and agitators in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service), and 63.174 (Standards: Connectors in gas/vapor service and in light liquid service).

**[45CSR§21-37, CO-21-97-4, Condition III.2 (State-Enforceable only), CO-27-92-12, Condition III.3 (State-Enforceable only), 45CSR34; 40CFR63, Subpart H; 40CFR§§63.162, 63.163, 63.165, 63.166, 63.168, 63.169, and 63.174]**

- 6.1.17. Emissions from the Scrubber 260A shall not exceed the following:

Toluene	11.9 lbs/hr	38,116 lbs/hr
Chloroform	<0.01 lbs/hr	60 lbs/yr

**[45CSR13, Permit Application No. R13-1300 (260A)]**

- 6.1.18. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20%) percent opacity.

**[45CSR§7-3.1. (260F, 265A, 265B)]**

- 6.1.19. The provisions of 6.1.18. above shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40%) percent opacity for any period or periods aggregating no more than five (5) minutes in any (60)minute period.

**[45CSR§7-3.2. (260F, 265A, 265B)]**

## **6.2. Monitoring Requirements**

- 6.2.1. The permittee shall monitor the following to ensure compliance with Condition 6.1.8:

Scrubber 260A

1. Measure the caustic concentration of the scrubber liquor once per day.
2. Continuously monitor the liquor flow rate

**[45CSR§30-5.1.c (260A)]**

- 6.2.2. The permittee shall monitor the following to ensure compliance with Condition 6.1.10 for the Thermal Oxidizer 260K:
1. The permittee shall provide continuous monitoring of the flame presence in the Thermal Oxidizer.
  2. The permittee shall continuously monitor the gas flow rate to the Thermal Oxidizer.
  3. The permittee shall continuously monitor the temperature of the Thermal Oxidizer.
- [45CSR§30-5.1.c (260K)]**
- 6.2.3. Compliance with the particulate matter limits of Condition 6.1.4 for the Baghouses (260F, 265A, 265B) shall be determined by:
- a. material balances around the baghouse.
  - b. monitor the pressure drop across the baghouse monthly.
- [45CSR§30.5.1.c (260F, 265A, 265B)]**
- 6.2.4. For purposes of demonstrating compliance with Condition 6.1.11 of this permit, the permittee shall conduct visible emission checks of each emission point subject to an opacity limit once per month during periods of normal unit operation using 40 C.F.R. 60 Appendix A, Method 22. If during these checks, or at any other time, visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with 40 C.F.R. 60 Appendix A, Method 9 within 48 hours. If the Method 9 test results show the opacity to be greater than the limit, then an evaluation to determine the cause of the exceedance shall be conducted within three (3) days, unless the cause of the exceedance is corrected within 24 hours. If no visible emissions are observed after four consecutive months, visible emission checks shall be conducted each calendar quarter. If any visible emissions are observed during the quarterly emission checks, visible emission checks shall return to being performed each calendar month. Records shall be maintained in accordance with Condition 3.4.2 of this permit and shall include all data required by 40 C.F.R. 60 Appendix A, Method 22 or Method 9 test, whichever is appropriate. These records shall include, at a minimum, the date and time of each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.
- [45CSR§30-5.1.c (260K)]**
- 6.2.5. **Group 1 Process Vents.** To demonstrate compliance with Condition 6.1.14 for Group 1 process vents using a incinerator, the permittee shall install monitoring equipment as described below:
- (1) Where an incinerator is used, a temperature monitoring device equipped with a continuous recorder is required.
- (i) Where an incinerator other than a catalytic incinerator is used, a temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.
- [45CSR34; 40 C.F.R. §§63.114(a) and 63.114(a)(1)(i)]**  
*(Emission Units: 260K)*
- 6.2.6. **Group 1 Process Vents.** The permittee shall comply with 6.2.6.1 or 6.2.6.2 for any bypass line between the origin of the gas stream (i.e., at an air oxidation reactor, distillation unit, or reactor as identified in 40 C.F.R. §63.107(b)) and the point where the gas stream reaches the process vent, as described in 40 C.F.R. §63.107, that could divert the gas stream directly to the atmosphere. Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes are not subject to this requirement.
- [45CSR34; 40 C.F.R. §63.114(d)]**

6.2.6.1. Properly install, maintain and operate a flow indicator that takes a reading at least once every 15 minutes. Records shall be generated as specified in 6.4.2.3. The flow indicator shall be installed at the entrance to any by-pass line that could divert the gas stream to the atmosphere.

**[45CSR34; 40 C.F.R. §63.114(d)(1)]**

6.2.6.2. Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the non-diverting position and the gas stream is not diverted through the bypass line.

**[45CSR34; 40 C.F.R. §63.114(d)(2)]**

*(Emission Units: 260K)*

6.2.7. At least monthly, visual emission checks of each emission point subject to an opacity limit shall be conducted. For units emitting directly into the open air from points other than a stack outlet, visible emissions are to include visible fugitive dust emissions that leave the plant site boundaries. These checks shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40 CFR 60, Appendix A, Method 22. If sources of visible emissions are identified during the survey, or at any other time, the permittee shall conduct an evaluation as outlined in 45CSR§7A-2.1.a,b within twenty-four (24) hours. However, a 45CSR§7A-2.1.a,b evaluation shall not be required more than once per month per emission unit. A 45CSR§7A-2.1.a,b evaluation shall not be required if the visible emission condition is corrected in a timely manner and the units are operated at normal operating conditions. A record of each visible emission check required above shall be maintained on site for a period of no less than five (5) years. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.

**[45CSR§7A-2.1a,b (260F, 265A, 265B)]**

### **6.3. Testing Requirements**

6.3.1. **40CFR63, Subpart H Testing Requirements for Equipment Leaks.** The permittee shall comply with all applicable test methods and procedures of 40CFR63, Subpart H – “National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks” as specified in 40CFR§63.180 (Test methods and procedures).

**[45CSR34; 40CFR63, Subpart H; 40CFR§63.180]**

6.3.2. **45CSR§21-37 Testing Requirements for Equipment Leaks.** The permittee shall comply with all applicable test methods and procedures of 45CSR§21-37 – “Leaks from Synthetic Organic Chemical, Polymer, and Resin Manufacturing Equipment” as specified in 45CSR§21-37.9. To the extent that implementation of the requirements of 40CFR60, 40CFR61, or 40CFR63 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-R21-97-4, III.2 (State-Enforceable only)]**

6.3.3. The permittee shall comply with all applicable provisions of 45CSR§21-41 regarding test methods and compliance procedures to demonstrate compliance with 6.1.5, except as otherwise approved by the Director.

**[45CSR§21-41; CO-R21-97-4, III.6]**

#### 6.4. Recordkeeping Requirements

- 6.4.1. The permittee shall do the following regarding the Thermal Oxidizer 260K:  
 Records shall be kept of all periods of operation during which the pilot flame is absent during Sevin Production.  
 Records shall be kept of natural gas usage for the Thermal Oxidizer 260K.  
**[45CSR§30-5.1.c (260K)]**
- 6.4.2. **Group 1 Process Vents.** To demonstrate compliance with 6.1.14 for Group 1 process vents using a thermal incinerator, the permittee shall keep the following records up-to-date and readily accessible:  
**[45CSR34; 40 C.F.R. §63.118(a)]**
- 6.4.2.1. Continuous records of the equipment operating parameters specified to be monitored under 6.2.5 and listed in table 3 of 40 C.F.R. 63, Subpart G.

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

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

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

PR = Periodic Reports described in 40 C.F.R. §63.152.

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

- 6.4.2.2. Records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in 40 C.F.R. §63.152(f).  
**[45CSR34; 40 C.F.R. §63.118(a)(2)]**
- 6.4.2.3. Hourly records of whether the flow indicator specified under 6.2.6.1 was operating and whether a diversion was detected at any time during the hour, as well as records of the times and durations of all periods when the gas stream is diverted to the atmosphere or the monitor is not operating.  
**[45CSR34; 40 C.F.R. §63.118(a)(3)]**

6.4.2.4. Where a seal mechanism is used to comply with Condition 6.2.6.2, hourly records of flow are not required. In such cases, the owner or operator shall record that the monthly visual inspection of the seals or closure mechanism has been done, and shall record the duration of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has broken.

[45CSR34; 40 C.F.R. §63.118(a)(4)]

(Emission Units: 260K)

6.4.3. **Group 1 Process Vents.** Each owner or operator subject to the control provisions for Group 1 process vents in 6.1.14 shall:

[45CSR34; 40 C.F.R. §63.117(a)]

6.4.3.1. Keep an up-to-date, readily accessible record of the data specified in 6.4.3.1.a submitted as part of the Notification of Compliance Status report dated September 15, 1997. [45CSR34; 40 C.F.R. §63.117(a)(1)]

a. Record and report the following when using a combustion device to achieve a 98 weight percent reduction in organic HAP or an organic HAP concentration of 20 parts per million by volume, as specified in §63.113(a)(2):

[45CSR34; 40 C.F.R. §63.117(a)(4)]

i. The parameter monitoring results for incinerators, catalytic incinerators, boilers or process heaters specified in table 3 of 40CFR63 Subpart G, and averaged over the same time period of the performance testing.

[45CSR34; 40 C.F.R. §63.117(a)(4)(i)]

ii. For an incinerator, the percent reduction of organic HAP or TOC achieved by the incinerator determined as specified in §63.116(c), or the concentration of organic HAP or TOC (parts per million by volume, by compound) determined as specified in §63.116(c) at the outlet of the incinerator on a dry basis corrected to 3 percent oxygen.

[45CSR34; 40 C.F.R. §63.117(a)(4)(ii)]

(Emission Unit: 260K)

6.4.4. **40CFR63, Subpart H Recordkeeping Requirements for Equipment Leaks.** The permittee shall comply with all applicable recordkeeping requirements of 40CFR63, Subpart H – “National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks” as specified in 40CFR§63.181 (Recordkeeping requirements).

[45CSR34; 40CFR63, Subpart H; 40CFR§63.181]

6.4.5. **Group 2 Storage Vessels.** Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation.

[45CSR34; 40 C.F.R. §63.123(a)]

(Emission Units: 4601, 4602, 4603, 4604, 4608, 4615, 4619, 4623)

- 6.4.6. In order to demonstrate compliance with Condition 6.1.1 and 6.1.2 The Permittee will keep monthly records (recorded in Usage Units) of the usage of the following materials:

Process Area	Material
Sevin Distribution 260 (Sevin Storage Bins)	Sevin Powder
Sevin Distribution 260 (Sevin Transfer System)	Sevin Powder
Sevin Distribution 260 (Sevin Production System)	Sevin Powder
Sevin Distribution 260 (Sevin Production System)	Naphtyl Choroformate
Sevin Distribution 260 (Sevin Production System)	Toluene
Sevin Distribution 260 (Sevin Production System)	Monomethylamine

[45CSR§30-5.1.c]

- 6.4.7. In order to demonstrate compliance with Condition 6.1.3, the Permittee shall maintain daily logs of the amount of Sevin produced (recorded in Production Units). These daily totals shall be summarized into monthly reports tabulating the total for the month as well as a calendar annual 12 month total.

[45CSR§30-5.1.c]

## 6.5. Reporting Requirements

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

[CO-R21-97-4 (Condition III.3) and 45CSR§21-9.3]

- 6.5.2. Reports of excess emissions. -- Except as provided in Condition 6.5.1, 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]**
- 6.5.3. The permittee shall submit Periodic Reports as described in 40 C.F.R. §63.152(c).  
**[45CSR34; 40CFR§§63.152(a)(4) and 63.152(c)]**
- 6.5.4. The permittee shall submit reports of start-up, shutdown, and malfunction required by 40CFR§63.10(d)(5). The start-up, shutdown and malfunction reports may be submitted on the same schedule as the Periodic Reports required under 40CFR§63.152(c).  
**[45CSR34; 40CFR§§63.152(a)(5) and 63.152(d)(1)]**
- 6.5.5. **Group 1 Process Vents.** If any subsequent TRE determinations or performance tests are conducted after submittal of the Notification of Compliance Status on September 15, 1997, the data in 6.4.3.1.a shall be reported in the next Periodic Report as specified in 40 C.F.R. §63.152(c).  
**[45CSR34; 40 C.F.R. §63.117(a)(3)]**  
*(Emission Units: 260A, 260C, 260E, and 260I)*
- 6.5.6. **Group 1 Process Vents.** The permittee shall submit to the Administrator Periodic Reports of the following recorded information according to the schedule in 40 C.F.R. §63.152(c).  
**[45CSR34; 40 C.F.R. §§63.118(f), 63.152(a), 63.152(a)(4), and 63.152(c)]**
- 6.5.6.1. For Group 1 points, reports of the duration of periods when monitoring data is not collected for each excursion caused by insufficient monitoring data as defined in 40 C.F.R. §63.152(c)(2)(ii)(A).  
**[45CSR34; 40 C.F.R. §63.118(f)(2)]**
  - 6.5.6.2. Reports of the times and durations of all periods recorded under 6.4.2.3 when the gas stream is diverted to the atmosphere through a bypass line.  
**[45CSR34; 40 C.F.R. §63.118(f)(3)]**
  - 6.5.6.3. Reports of the times and durations of all periods recorded under 6.4.2.2 in which all pilot flames of a flare were absent.  
**[45CSR34; 40 C.F.R. §63.118(f)(5)]**
  - 6.5.6.4. Reports of all periods recorded under 6.4.2.4 in which the seal mechanism is broken, the bypass line valve position has changed, or the key to unlock the bypass line valve was checked out.  
**[45CSR34; 40 C.F.R. §63.118(f)(4)]**
- (Emission Units: 260A, 260C, 260E, and 260I)*
- 6.5.7. **40CFR63, Subpart H Reporting Requirements for Equipment Leaks.** The permittee shall comply with all applicable reporting requirements of 40CFR63, Subpart H – “National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks” as specified in 40CFR§63.182 (Reporting requirements).  
**[45CSR34; 40CFR63, Subpart H; 40CFR§63.182]**

## 6.6. Compliance Plan

N/A

# Appendix A

## 40CFR63.160

### Subpart H

#### National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks