West Virginia Department of Environmental Protection
Division of Air Quality

Earl Ray Tomblin
Governor

Randy C. Huffman
Cabinet Secretary

Permit to Operate

Pursuant to

Title V

of the Clean Air Act

Bayer CropScience
Institute Site
Group 8 of 8
(Phosgene, MIC, Sevin)
R30-03900007-2012

John A. Benedict
Director

Issued: Draft • Effective: Draft
Expiration: Draft • Renewal Application Due: Draft

Permit Number: **R30-03900007-2012**
Permittee: **Bayer CropScience**
Facility Name: **Institute Site**
Mailing Address: **P.O. Box 1005**
Charleston, WV 25112

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

Facility Location:	Institute, Kanawha County, West Virginia
Mailing Address:	**P.O. Box 1005**
	Charleston, WV 25112
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

Permit Writer: Mike Egnor

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

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

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

1.1. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
Phosgene					
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	Hydecat Reactor	2000	100 gal/hr	N/A

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
V-1556	V-1556	Pick flow water heater	2000	134,000 BTU/hr	N/A
Control Devices					
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
MIC					
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
C-A&B 117	242E or 242A	Pyrolyzers	1976 (east) 1997 (west)	5,600 gal	N/A

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
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-800	242A	Product Tank	2010	8,500 gal	242A/(242H and 242I)
C-810	242A	Off-Spec Tank	2010	8,500 gal	242A/(242H and 242I)
C-A242	242A	Unit Storage tank 4871	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 Condeser	1976	720,000 gal	N/A

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
E-155	242A or 242E	Residue Treater Vent Condenser	1976	407,761 BTU/hr	242D/242E or 242B/242A
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

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
E-202	N/A	HCL Absorber Tails Cooler	1993	468,000 BTU/hr	N/A
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
Control Devices					
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
242H	242H	Emergency Ventilation Carbon Bed	2010	6,400 lbs Carbon	N/A
242I	242I	Emergency Ventilation Carbon Bed	2010	6,400 lbs Carbon	N/A
Sevin					
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

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
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
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^3	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

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
26014 (260E)	260K	Demister	1962	1,200 gal	260K
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
Control Devices					
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

1.2. Active R13, R14, and R19 Permits

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

Permit Number	Date of Issuance
R13-223	5/28/1976
R13-226	5/21/1976
R13-1590	05/14/1993
R13-1300A	08/11/2010

2.0 General Conditions

2.1. Definitions

2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.

2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.

2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the monthly data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months.

2.2. Acronyms

CAAA	Clean Air Act Amendments
CBI	Confidential Business Information
CEM	Continuous Emission Monitor
CES	Certified Emission Statement
C.F.R. *or* CFR	Code of Federal Regulations
CO	Carbon Monoxide
C.S.R. *or* CSR	Codes of State Rules
DAQ	Division of Air Quality
DEP	Department of Environmental Protection
FOIA	Freedom of Information Act
HAP	Hazardous Air Pollutant
HON	Hazardous Organic NESHAP
HP	Horsepower
lbs/hr *or* lb/hr	Pounds per Hour
LDAR	Leak Detection and Repair
m	Thousand
MACT	Maximum Achievable Control Technology
mm	Million
mmBtu/hr	Million British Thermal Units per Hour
mmft^3/hr *or* mmcf/hr	Million Cubic Feet Burned per Hour
NA *or* N/A	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAPS	National Emissions Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
PM	Particulate Matter
PM_{10}	Particulate Matter less than 10μm in diameter
pph	Pounds per Hour
ppm	Parts per Million
PSD	Prevention of Significant Deterioration
psi	Pounds per Square Inch
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
TAP	Toxic Air Pollutant
TPY	Tons per Year
TRS	Total Reduced Sulfur
TSP	Total Suspended Particulate
USEPA	United States Environmental Protection Agency
UTM	Universal Transverse Mercator
VEE	Visual Emissions Evaluation
VOC	Volatile Organic Compounds

2.3. Permit Expiration and Renewal

2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.
[45CSR§30-5.1.b.]

2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.
[45CSR§30-4.1.a.3.]

2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.
[45CSR§30-6.3.b.]

2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.
[45CSR§30-6.3.c.]

2.4. Permit Actions

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

2.5. Reopening for Cause

2.5.1. This permit shall be reopened and revised under any of the following circumstances:

a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.

b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.

c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

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

2.7. Minor Permit Modifications

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

2.8. Significant Permit Modification

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

2.9. Emissions Trading

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

2.10. Off-Permit Changes

2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:

a. The change must meet all applicable requirements and may not violate any existing permit term or condition.

b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

c. The change shall not qualify for the permit shield.

d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.

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

[45CSR§30-5.9.]

2.11. Operational Flexibility

2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.
[45CSR§30-5.8]

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

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

a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or

b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

[45CSR§30-5.8.c.]

2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
[45CSR§30-2.39]

2.12. Reasonably Anticipated Operating Scenarios

2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.

a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.

b. The permit shield shall extend to all terms and conditions under each such operating scenario; and

c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

[45CSR§30-5.1.i.]

2.13. Duty to Comply

2.13.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
[45CSR§30-5.1.f.1.]

2.14. Inspection and Entry

2.14.1. The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;

d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:

a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

2.16.1. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.
[45CSR§30-5.1.f.2.]

2.17. Emergency

2.17.1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
[45CSR§30-5.7.a.]

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

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

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. The permitted facility was at the time being properly operated;

c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

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

[45CSR§30-5.7.c.]

2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
[45CSR§30-5.7.d.]

2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.
[45CSR§30-5.7.e.]

2.18. Federally-Enforceable Requirements

2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.
[45CSR§30-5.2.a.]

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

2.19. Duty to Provide Information

2.19.1. The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.
[45CSR§30-5.1.f.5.]

2.20. Duty to Supplement and Correct Information

2.20.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.
[45CSR§30-4.2.]

2.21. Permit Shield

2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and

are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof.
[45CSR§30-5.6.a.]

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

a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or

b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.

c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

2.22. Credible Evidence

2.22.1. Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.
[45CSR§30-5.3.e.3.B. and 45CSR38]

2.23. Severability

2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect.
[45CSR§30-5.1.e.]

2.24. Property Rights

2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege.
[45CSR§30-5.1.f.4]

2.25. Acid Deposition Control

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

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

b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.

c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.
[45CSR§30-5.1.a.2.]

3.0 Facility-Wide Requirements

3.1. Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1. **[45CSR§6-3.1.]**

3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause or allow any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]

3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40 C.F.R. §61.145(b) and 45CSR34]

3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1 State-Enforceable only.]

3.1.5. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2]

3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality.
[W.Va. Code § 22-5-4(a)(14)]

3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.

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

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

3.1.8. **Risk Management Plan.** 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. The permitted facility shall be constructed and operated in accordance with information filed in Permit Applications R13-223, R13-226, R13-1300, R13-1300A, 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]

3.1.10. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.11., 45CSR13, R13-1300 (Condition 4.1.25 and 5.1.7)]

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.

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

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

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

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

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

3.4. Recordkeeping Requirements

3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit and time of sampling or measurements;

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of the analyses; and

f. The operating conditions existing at the time of sampling or measurement.

[45CSR§30-5.1.c.2.A, 45CSR13, Permit R13-1300 (Conditions 4.4.1 and 5.4.1)]

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

required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.
[45CSR§30-5.1.c.2.B.]

3.4.3. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§30-5.1.c. State-Enforceable only.]

3.4.4. Record of Maintenance of Air Pollution Control Equipment. For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
[45CSR13, R13-1300 (Conditions 4.4.2 and 5.4.2)]

3.4.5. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.

b. Steps taken to minimize emissions during the event.

c. The duration of the event.

d. The estimated increase in emissions during the event.

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

e. The cause of the malfunction.

f. Steps taken to correct the malfunction.

g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.
[45CSR13, R13-1300 (Conditions 4.4.3 and 5.4.3)]

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
[45CSR§§30-4.4. *and* 5.1.c.3.D.]

3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
[45CSR§30-5.1.c.3.E.]

3.5.3. Except for the electronic submittal of the annual certification to the USEPA as required in 3.5.5 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, mailed first class or by private carrier with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:

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

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

If to the US EPA:

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

3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality.
[45CSR§30-8.]

3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The annual certification to the USEPA shall be submitted in electronic format only. It shall be submitted by e-mail to the following address: R3_APD_Permits@epa.gov. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification.
[45CSR§30-5.3.e.]

3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4.
[45CSR§30-5.1.c.3.A.]

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

3.5.8. **Deviations.**

a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:

1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.

2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.

3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.

4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C.]

b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.
[45CSR§30-5.1.c.3.B.]

3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.
[45CSR§30-4.3.h.1.B.]

3.6. 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 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
	Cl2	<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	
			(hrs/yr)	(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 POLUTANTS EMISSIONS OR A LIMIT OF 20 PARTS PER MILLION BY VOLUME

Control device	Parameters to be monitored	Recordkeeping and reporting requirements for monitored parameters
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 though 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 and 242D)

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 and 242D)

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 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, R13-1300 (Condition 4.1.1)]

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	
			(hrs/yr)	(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 242B/242A	99.6/0.9 0.9/98	4704	0.62	1.46
E155 Residue Treater Vent Condenser	242D/242E 242B/242A	99.6/0.9 0.9/98	2744	8.34	11.44
T4868 Dry Chloroform Tank	242D/242E 242B/242A	99.6/0.9 0.9/98	8424	0.518	2.18
T4879 Fresh Chloroform Tank	242D/242E 242B/242A	99.6/0.9 0.9/98	8424	1.294	5.66
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), 45CSR13, R13-1300 (Condition 4.1.2) (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) , 45CSR13, R13-1300 (Condition 4.1.3) (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), 45CSR13, R13-1300 (Condition 4.1.4)]

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., 45CSR13, R13-1300 (Condition 4.1.5) (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., 45CSR13, R13-1300 (Condition 4.1.6) (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, 45CSR13, R13-1300 (Condition 4.1.7) (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, 45CSR13, R13-1300 (Condition 4.1.8) (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, R13-1300 (Condition 4.1.9) (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, 45CSR13, R13-1300 (Condition 4.1.10) (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., 45CSR13, R13-1300 (Condition 4.1.11) (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, 45CSR13, R13-1300 (Condition 4.1.12) (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, 45CSR13, R13-1300 (Condition 4.1.13) (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, 45CSR13, R13-1300 (Condition 4.1.14) (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), 45CSR13, R13-1300 (Condition 4.1.15)]
(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), 45CSR13, R13-1300 (Condition 4.1.16)]

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), 45CSR13, R13-1300 (Condition 4.1.16.1)]

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), 45CSR13, R13-1300 (Condition 4.1.16.2)]

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), 45CSR13, R13-1300 (Condition 4.1.16.3)]**

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), 45CSR13, R13-1300 (Condition 4.1.16.4)]

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), 45CSR13, R13-1300 (Condition 4.1.16.5)]
(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), 45CSR13, R13-1300 (Condition 4.1.17)]
(Emission Units: C-A242, C-B242, C-C242, C-800, C-810)

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, 45CSR13, R13-1300 (Condition 4.1.18)]

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

Emission Point	Pollutant	(lbs/hr)	(lbs/yr)
242A	Methyl Isocyanate	0.12	293
242A	Phosgene	<0.01	65
242A	Chlorine	<0.01	34
242A	Dichloromethane	0.03	18
242A	Hydrogen Chloride[1]	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[2]	20	1,360
242C	Chloroform[2]	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, R13-1300 (Condition 4.1.19) (242A, 242B, 242C, 242E, 242F, and 242G)]

5.1.20. Unit storage tanks T-4871, T-4872, T-4873, T-4874, T-4851, and T-4852 shall not be used to store MIC. The T-4853 Dump Tank shall only be used as emergency storage of MIC during malfunction conditions, and shall be emptied prior to restart of normal operations.
[45CSR13, R13-1300 (Condition 4.1.20)

5.1.21. Emissions of Methyl Isocyanate (MIC) from Flare 242A from the following units shall not exceed the following:

Emission Unit ID	Name	Lbs/hr	Tons per Year
T-4853	Dump Tank	0.11*	< 0.001*
C-800	Product Tank	0.005	0.024
C-810	Off-Spec Tank	0.005	0.019

*- Per occurrence
[45CSR13, R13-1300 (Condition 4.1.21) (T-4853, C-800, C-810)]

5.1.22. If a Methyl Isocyanate (MIC) concentration of 30 ppm or greater is detected within the MIC vault building, the louvers shall be closed, such that there will be no ventilation from the vault to atmosphere. If a significant MIC concentration builds up within the MIC vault building, a deluge system consisting of water sprays and blowers to the carbon beds (242H and 242I) shall be utilized. Emissions from the carbon beds (242H and 242I) shall not exceed 0.07 lbs per occurrence. These emissions are exclusive of the MIC emission limit of Condition 5.1.19.
[45CSR13, R13-1300 (Condition 4.1.22) (242H and 242I)]

5.1.23. In order to show compliance with the emissions limitations given in Condition 5.1.21, the Permittee shall comply with the following:

a) No more than 50,000 lbs of Methyl Isocyanate (MIC) shall be stored in both Storage Tanks C-800 and C-810 at any time.

b) The liquid phase Methyl Isocyanate (MIC) in Storage Tanks C-800 and C-810 shall be stored no higher than 23 degrees Fahrenheit on a rolling average monthly basis. The temperature shall not exceed 32 degrees Fahrenheit at any time. These temperature requirements shall not apply if the Storage Tank is empty of MIC.

c) No more than 1.5 standard cubic feet per minute (scfm) of Nitrogen shall be used for the emergency relief valve (ERV) sweeps for the Methyl Isocyanate (MIC) Storage Tanks C-800 and C-810.

d) No more than 3.0 standard cubic feet per hour (scfh) of Nitrogen shall be used for each of the capillaries for instrument blowback for the Methyl Isocyanate (MIC) Storage Tanks C-800 and C-810.

[45CSR13, R13-1300 (Condition 4.1.23) (C-800 and C-810)]

5.1.24. In order to show compliance with Condition 5.1.23 c. and d., the facility shall:

c) Use an orifice for nitrogen flow into the emergency relief valve with an internal diameter not

greater than 0.031 inches. The pressure difference across the orifice shall not be greater than 110 pounds per square inch.

d) Use an orifice for nitrogen flow into each capillary for instrument blowback of the Product Tank (C-800) and Off-Spec Tank (C-810) with an internal diameter not greater than 0.010 inches. The pressure difference across the capillaries shall not be greater than 110 pounds per square inch.

[45CSR13, R13-1300 (Condition 4.1.24) (C-800 and C-810)]

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.

[45CSR13, R13-1300 (Condition 4.2.1) (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.

[45CSR13, R13-1300 (Condition 4.2.2) (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.

[45CSR13, R13-1300 (Condition 4.2.3) (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), 45CSR13, R13-1300 (Condition 4.2.4)]
(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), 45CSR13, R13-1300 (Condition 4.2.5)]

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), 45CSR13, R13-1300 (Condition 4.2.5.1)]

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), 45CSR13, R13-1300 (Condition 4.2.5.2)]
(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), 45CSR13, R13-1300 (Condition 4.2.6)]

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), 45CSR13, R13-1300 (Condition 4.2.6.1]

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), 45CSR13, R13-1300 (Condition 4.2.6.2]

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), 45CSR13, R13-1300 (Condition 4.2.6.3]

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), 45CSR13, R13-1300 (Condition 4.2.6.4]
(Emission Units: T-4879, T-4851, T-4852, T-4853, C247)

5.2.7. To show compliance with Condition 5.1.22, the MIC vault building (i.e., that holding the two MIC tanks (C-800 and C-810)) shall have continuous monitoring of MIC so long as MIC is stored in either tank. The analyzers used must be able to detect MIC concentrations of at least 10 parts per million (ppm).
[45CSR13, R13-1300 (Condition 4.2.7) (C-800 and C-810)]

5.2.8. In order to show compliance with Condition 5.1.23 a. and b., the facility shall continuously monitor:
a) The amount of Methyl Isocyanate (MIC) stored in Product Tank (C-800), Off-Spec Tank (C-810), and Unit Dump Tank (T-4853).
b) The temperature of liquid Methyl Isocyanate (MIC) stored in Product Tank (C-800), Off-Spec Tank (C-810), and Unit Dump Tank (T-4853) shall be kept on a rolling monthly average.
[45CSR13, R13-1300 (Condition 4.2.8) (T-4853, C-800, and C-810)]

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, 45CSR13, R13-1300 (Condition 4.3.1)]

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), 45CSR13, R13-1300 (Condition 4.3.2)]

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, 45CSR13, R13-1300 (Condition 4.3.3)]**

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), 45CSR13, R13-1300 (Condition 4.4.4)]**

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 POLUTANTS EMISSIONS OR A LIMIT OF 20 PARTS PER MILLION BY VOLUME

Control device	Parameters to be monitored	Recordkeeping and reporting requirements for monitored parameters
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, 45CSR13, R13-1300 (Condition 4.4.4.1)]

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), 45CSR13, R13-1300 (Condition 4.4.4.2)]

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), 45CSR13, R13-1300 (Condition 4.4.4.3)]

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), 45CSR13, R13-1300 (Condition 4.4.4.4)]

(Emission Units: 242A and 242D)

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), 45CSR13, R13-1300 (Condition 4.4.5)]

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), 45CSR13, R13-1300 (Condition 4.4.5.1)]

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), 45CSR13, R13-1300 (Condition 4.4.5.1.a)]

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), 45CSR13, R13-1300 (Condition 4.4.5.1.a.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), 45CSR13, R13-1300 (Condition 4.4.5.1.a.ii)]

b. Flare design (i.e., steam-assisted, air-assisted, or non-assisted);
[45CSR34; 40 C.F.R. §63.117(a)(5)(i), 45CSR13, R13-1300 (Condition 4.4.5.1.b)]

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), 45CSR13, R13-1300 (Condition 4.4.5.1.c)]

d. All periods during the compliance determination when the pilot flame is absent.
[45CSR34; 40 C.F.R. §63.117(a)(5)(iii), 45CSR13, R13-1300 (Condition 4.4.5.1.d)]

(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), 45CSR13, R13-1300 (Condition 4.4.6)]
(Emission Units: T-4879, T-4851, T-4852, T-4853, C247, C-A242, C-B242, C-C242, C-800, and C-810)

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), 45CSR13, R13-1300 (Condition 4.4.7)]

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), 45CSR13, R13-1300 (Condition 4.4.7.1)]
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), 45CSR13, R13-1300 (Condition 4.4.7.2)]
(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, 45CSR13, R13-1300 (Condition 4.4.8)]

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); CO-R21-97-31, III.2 (State-Enforceable only); CO-R21-10A(97), III.1, 45CSR13, R13-1300 (Condition 4.4.9) (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.
[45CSR13, R13-1300 (Condition 4.4.10)]

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.
[45CSR13, R13-1300 (Condition 4.4.11)] (242A, 242D)]

5.4.9. The permittee shall keep records of the time and duration that the Emergency Carbon Bed System (242H and 242I) are used at the facility during actual operation. This condition does not apply for routine testing of the system.
[45CSR13, R13-1300 (Condition 4.4.12)]

5.4.10. The permittee shall keep records of the monitoring parameters in Condition 5.2.8, as well as the date, time, and length of time the parameters in Condition 5.1.23 were exceeded. The temperature recorded shall also be kept on a rolling monthly average.
[45CSR13, R13-1300 (Condition 4.4.13)]

5.4.11. The permittee shall maintain records of the schematics of the orifice plates used in Condition 5.1.24. If the orifice plate is replaced, the permittee will record the date as well as the schematics of the new plate. The permittee shall also maintain records of the set point of the nitrogen pressure regulator.
[45CSR13, R13-1300 (Condition 4.4.14)]

5.4.12. The permittee shall maintain records of the date and amounts of Methyl Isocyanate (MIC) transferred to the Dump Tank T-4853 when used for emergency storage.
[45CSR13, R13-1300 (Condition 4.4.15)]

5.4.13. The permittee shall maintain records of the concentrations of MIC monitored under Condition 5.2.7.
[45CSR§30-5.1.c]

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:

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, 45CSR13, R13-1300 (Condition 4.5.1)]

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, 45CSR13, R13-1300 (Condition 4.5.2)]

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) , 45CSR13, R13-1300 (Condition 4.5.3)]

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) , 45CSR13, R13-1300 (Condition 4.5.4)]

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 though 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), 45CSR13, R13-1300 (Condition 4.5.5)]
(Emission Units: 242A and 242D)

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), 45CSR13, R13-1300 (Condition 4.5.6)]**

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), 45CSR13, R13-1300 (Condition 4.5.6.1)]**

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), 45CSR13, R13-1300 (Condition 4.5.6.2)]**

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), 45CSR13, R13-1300 (Condition 4.5.6.3)]**

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), 45CSR13, R13-1300 (Condition 4.5.6.4)]**
(Emission Units: 242A and 242D)

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), 45CSR13, R13-1300 (Condition 4.5.7)]

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), 45CSR13, R13-1300 (Condition 4.5.7.1)]

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), 45CSR13, R13-1300 (Condition 4.5.7.1.a)]

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), 45CSR13, R13-1300 (Condition 4.5.7.1.b)]

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), 45CSR13, R13-1300 (Condition 4.5.7.2)]

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), 45CSR13, R13-1300 (Condition 4.5.7.2.a)]

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), 45CSR13, R13-1300 (Condition 4.5.7.2.b)]

(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, 45CSR13, R13-1300 (Condition 4.5.8)]

5.6. Compliance Plan

N/A

6.0 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, R13-1300 (Condition 5.1.1)]

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	
			(hrs/yr)	(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), 45CSR13, R13-1300 (Condition 5.1.2)]

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, R13-1300 (Condition 5.1.4) (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), 45CSR13, R13-1300 (Condition 5.1.5)]

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, R13-1300 (Condition 5.1.6)] (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)]

6.1.20. 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)
Misc. Tanks & Equipment	260A	98	8760	0.61	2.67

[45CSR§21-37, CO-21-97-4 (State-Enforceable only), (Condition III.1), 45CSR13, R13-1300 (Condition 5.1.3)]

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
[45CSR13, R13-1300 (Condition 5.2.1) (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, 45CSR13, R13-1300 (Condition 5.3.1)]

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), 45CSR13, R13-1300 (Condition 5.3.2)]

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, 45CSR13, R13-1300 (Condition 5.3.3)]**

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 POLUTANTS EMISSIONS OR A LIMIT OF 20 PARTS PER MILLION BY VOLUME

Control device	Parameters to be monitored	Recordkeeping and reporting requirements for monitored parameters
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, 45CSR13, R13-1300 (Condition 5.4.4)]

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.
[45CSR13, R13-1300 (Condition 5.4.5)]

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, 45CSR13, R13-1300 (Condition 5.5.1)]

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), 45CSR13, R13-1300 (Condition 5.5.2)]

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), 45CSR13, R13-1300 (Condition 5.5.3)]

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, 45CSR13, R13-1300 (Condition 5.5.4)]

6.6. Compliance Plan

N/A

Appendix A

40CFR63.160

Subpart H

National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks

Subpart H—National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks

Source: 59 FR 19568, Apr. 22, 1994, unless otherwise noted.

§ 63.160 Applicability and designation of source.

(a) The provisions of this subpart apply to pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, instrumentation systems, and control devices or closed vent systems required by this subpart that are intended to operate in organic hazardous air pollutant service 300 hours or more during the calendar year within a source subject to the provisions of a specific subpart in 40 CFR part 63 that references this subpart.

(b) After the compliance date for a process unit, equipment to which this subpart applies that are also subject to the provisions of:

(1) 40 CFR part 60 will be required to comply only with the provisions of this subpart.

(2) 40 CFR part 61 will be required to comply only with the provisions of this subpart.

(c) If a process unit subject to the provisions of this subpart has equipment to which this subpart does not apply, but which is subject to a standard identified in paragraph (c)(1), (c)(2), or (c)(3) of this section, the owner or operator may elect to apply this subpart to all such equipment in the process unit. If the owner or operator elects this method of compliance, all VOC in such equipment shall be considered, for purposes of applicability and compliance with this subpart, as if it were organic hazardous air pollutant (HAP). Compliance with the provisions of this subpart, in the manner described in this paragraph, shall be deemed to constitute compliance with the standard identified in paragraph (c)(1), (c)(2), or (c)(3) of this section.

(1) 40 CFR part 60, subpart VV, GGG, or KKK; (2) 40 CFR part 61, subpart F or J; or (3) 40 CFR part 264, subpart BB or 40 CFR part 265, subpart BB.

(2) [Reserved]

(d) The provisions in §63.1(a)(3) of subpart A of this part do not alter the provisions in paragraph (b) of this section.

(e) Except as provided in any subpart that references this subpart, lines and equipment not containing process fluids are not subject to the provisions of this subpart. Utilities, and other non-process lines, such as heating and cooling systems which do not combine their materials with those in the processes they serve, are not considered to be part of a process unit.

(f) The provisions of this subpart do not apply to research and development facilities or to bench-scale batch processes, regardless of whether the facilities or processes are located at the same plant site as a process subject to the provisions of this subpart.

(g) *Alternative means of compliance* —(1) *Option to comply with part 65.* Owners or operators of CMPU that are subject to §63.100 may choose to comply with the provisions of 40 CFR part 65 for all Group 1 and Group 2 process vents, Group 1 storage vessels, Group 1 transfer operations, and equipment that are subject to §63.100, that are part of the CMPU. Other provisions applying to an owner or operator who chooses to comply with 40 CFR part 65 are provided in 40 CFR 65.1.

(i) For equipment, 40 CFR part 65 satisfies the requirements of §§63.102, 63.103, and 63.162 through 63.182. When choosing to comply with 40 CFR part 65, the requirements of §63.180(d) continue to apply.

(ii) For Group 1 and Group 2 process vents, Group 1 storage vessels, and Group 1 transfer operations, comply with §63.110(i)(1).

(2) *Part 65, subpart C or F.* For owners or operators choosing to comply with 40 CFR part 65, each surge control vessel and bottoms receiver subject to §63.100 that meets the conditions specified in table 2 or table 3 of this subpart shall meet the requirements for storage vessels in 40 CFR part 65, subpart C; all other equipment subject to §63.100 shall meet the requirements in 40 CFR part 65, subpart F.

(3) *Part 63, subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart C or F, for equipment subject to §63.100 must also comply with the applicable general provisions of this part 63 listed in table 4 of this subpart. All sections and paragraphs of subpart A of this part that are not mentioned in table 4 of this subpart do not apply to owners or operators of equipment subject to §63.100 of subpart F complying with 40 CFR part 65, subpart C or F, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart C or F, must comply with 40 CFR part 65, subpart A.

[59 FR 19568, Apr. 22, 1994, as amended at 59 FR 48176, Sept. 20, 1994; 59 FR 53360, Oct. 24, 1994; 60 FR 18029, Apr. 10, 1995; 61 FR 31439, June 20, 1996; 64 FR 20198, Apr. 26, 1999; 65 FR 78285, Dec. 14, 2000]

§ 63.161 Definitions.

All terms used in this subpart shall have the meaning given them in the Act and in this section as follows, except as provided in any subpart that references this subpart.

Batch process means a process in which the equipment is fed intermittently or discontinuously. Processing then occurs in this equipment after which the equipment is generally emptied. Examples of industries that use batch processes include pharmaceutical production and pesticide production.

Batch product-process equipment train means the collection of equipment (e.g., connectors, reactors, valves, pumps, etc.) configured to produce a specific product or intermediate by a batch process.

Bench-scale batch process means a batch process (other than a research and development facility) that is operated on a small scale, such as one capable of being located on a laboratory bench top. This bench-scale equipment will typically include reagent feed vessels, a small reactor and associated product separator, recovery and holding equipment. These processes are only capable of producing small quantities of product.

Bottoms receiver means a tank that collects distillation bottoms before the stream is sent for storage or for further downstream processing.

Closed-loop system means an enclosed system that returns process fluid to the process and is not vented to the atmosphere except through a closed-vent system.

Closed-purge system means a system or combination of system and portable containers, to capture purged liquids. Containers must be covered or closed when not being filled or emptied.

Closed-vent system means a system that is not open to the atmosphere and that is composed of hard-piping, ductwork, connections and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device or back into a process.

Combustion device means an individual unit of equipment, such as a flare, incinerator, process heater, or boiler, used for the combustion of organic hazardous air pollutant emissions.

Compliance date means the dates specified in §63.100(k) or §63.100(l)(3) of subpart F of this part for process units subject to subpart F of this part; the dates specified in §63.190(e) of subpart I of this part for process units subject to subpart I of this part. For sources subject to other subparts in 40 CFR part 63 that reference this subpart, compliance date will be defined in those subparts. However, the compliance date for §63.170 shall be no later than 3 years after the effective date of those subparts unless otherwise specified in such other subparts.

Connector means flanged, screwed, or other joined fittings used to connect two pipe lines or a pipe line and a piece of equipment. A common connector is a flange. Joined fittings welded completely around the circumference of the interface are not considered connectors for the purpose of this regulation. For the purpose of reporting and recordkeeping, connector means joined fittings that are not inaccessible, glass, or glass-lined as described in §63.174(h) of this subpart.

Control device means any equipment used for recovering, recapturing, or oxidizing organic hazardous air pollutant vapors. Such equipment includes, but is not limited to, absorbers, carbon adsorbers, condensers, flares, boilers, and process heaters.

Double block and bleed system means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

Duct work means a conveyance system such as those commonly used for heating and ventilation systems. It is often made of sheet metal and often has sections connected by screws or crimping. Hard-piping is not ductwork.

Equipment means each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, surge control vessel, bottoms receiver, and instrumentation system in organic hazardous air pollutant service; and any control devices or systems required by this subpart.

First attempt at repair means to take action for the purpose of stopping or reducing leakage of organic material to the atmosphere, followed by monitoring as specified in §63.180 (b) and (c), as appropriate, to verify whether the leak is repaired, unless the owner or operator determines by other means that the leak is not repaired.

Flow indicator means a device which indicates whether gas flow is, or whether the valve position would allow gas flow to be, present in a line.

Fuel gas means gases that are combusted to derive useful work or heat.

Fuel gas system means the offsite and onsite piping and control system that gathers gaseous stream(s) generated by onsite operations, may blend them with other sources of gas, and transports the gaseous stream for use as fuel gas in combustion devices or in in-process combustion equipment such as furnaces and gas turbines, either singly or in combination.

Hard-piping means pipe or tubing that is manufactured and properly installed using good engineering judgement and standards, such as ANSI B31–3.

In food/medical service means that a piece of equipment in organic hazardous air pollutant service contacts a process stream used to manufacture a Food and Drug Administration regulated product where leakage of a barrier fluid into the process stream would cause any of the following:

(1) A dilution of product quality so that the product would not meet written specifications,

(2) An exothermic reaction which is a safety hazard,

(3) The intended reaction to be slowed down or stopped, or

(4) An undesired side reaction to occur.

In gas/vapor service means that a piece of equipment in organic hazardous air pollutant service contains a gas or vapor at operating conditions.

In heavy liquid service means that a piece of equipment in organic hazardous air pollutant service is not in gas/vapor service or in light liquid service.

In light liquid service means that a piece of equipment in organic hazardous air pollutant service contains a liquid that meets the following conditions:

(1) The vapor pressure of one or more of the organic compounds is greater than 0.3 kilopascals at 20 °C,

(2) The total concentration of the pure organic compounds constituents having a vapor pressure greater than 0.3 kilopascals at 20 °C is equal to or greater than 20 percent by weight of the total process stream, and

(3) The fluid is a liquid at operating conditions.

Note: Vapor pressures may be determined by the methods described in 40 CFR 60.485(e)(1).

In liquid service means that a piece of equipment in organic hazardous air pollutant service is not in gas/vapor service.

In organic hazardous air pollutant or *in organic HAP service* means that a piece of equipment either contains or contacts a fluid (liquid or gas) that is at least 5 percent by weight of total organic HAP's as determined according to the provisions of §63.180(d) of this subpart. The provisions of §63.180(d) of this subpart also specify how to determine that a piece of equipment is not in organic HAP service.

In vacuum service means that equipment is operating at an internal pressure which is at least 5 kilopascals below ambient pressure.

In volatile organic compound or *in VOC service* means, for the purposes of this subpart, that:

(1) The piece of equipment contains or contacts a process fluid that is at least 10 percent VOC by weight (see 40 CFR 60.2 for the definition of VOC, and 40 CFR 60.485(d) to determine whether a piece of equipment is not in VOC service); and

(2) The piece of equipment is not in heavy liquid service as defined in 40 CFR 60.481.

In-situ sampling systems means nonextractive samplers or in-line samplers.

Initial start-up means the first time a new or reconstructed source begins production. Initial start-up does not include operation solely for testing equipment. Initial start-up does not include subsequent start-ups (as defined in this section) of process units following malfunctions or process unit shutdowns.

Instrumentation system means a group of equipment components used to condition and convey a sample of the process fluid to analyzers and instruments for the purpose of determining process operating conditions (e.g., composition, pressure, flow, etc.). Valves and connectors are the predominant type of equipment used in instrumentation systems; however, other types of equipment may also be included in these systems. Only valves nominally 0.5 inches and smaller, and connectors nominally 0.75 inches and smaller in diameter are considered instrumentation systems for the purposes of this subpart. Valves greater than nominally 0.5 inches and connectors greater than nominally 0.75 inches associated with instrumentation systems are not considered part of instrumentation systems and must be monitored individually.

Liquids dripping means any visible leakage from the seal including dripping, spraying, misting, clouding, and ice formation. Indications of liquid dripping include puddling or new stains that are indicative of an existing evaporated drip.

Nonrepairable means that it is technically infeasible to repair a piece of equipment from which a leak has been detected without a process unit shutdown.

On-site or *On site* means, with respect to records required to be maintained by this subpart, that the records are stored at a location within a major source which encompasses the affected source. On-site includes, but is not limited to, storage at the chemical manufacturing process unit to which the records pertain, or storage in central files elsewhere at the major source.

Open-ended valve or line means any valve, except pressure relief valves, having one side of the valve seat in contact with process fluid and one side open to atmosphere, either directly or through open piping.

Plant site means all contiguous or adjoining property that is under common control, including properties that are separated only by a road or other public right-of-way. Common control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, or any combination thereof.

Polymerizing monomer means a molecule or compound usually containing carbon and of relatively low molecular weight and simple structure (e.g., hydrogen cyanide, acrylonitrile, styrene), which is capable of conversion to polymers, synthetic resins, or elastomers by combination with itself due to heat generation caused by a pump mechanical seal surface, contamination by a seal fluid (e.g., organic peroxides or chemicals that will form organic peroxides), or a combination of both with the resultant polymer buildup causing rapid mechanical seal failure.

Pressure release means the emission of materials resulting from the system pressure being greater than the set pressure of the pressure relief device. This release can be one release or a series of releases over a short time period due to a malfunction in the process.

Pressure relief device or valve means a safety device used to prevent operating pressures from exceeding the maximum allowable working pressure of the process equipment. A common pressure relief device is a spring-loaded pressure relief valve. Devices that are actuated either by a pressure of less than or equal to 2.5 psig or by a vacuum are not pressure relief devices.

Process unit means a chemical manufacturing process unit as defined in subpart F of this part, a process subject to the provisions of subpart I of this part, or a process subject to another subpart in 40 CFR part 63 that references this subpart.

Process unit shutdown means a work practice or operational procedure that stops production from a process unit or part of a process unit during which it is technically feasible to clear process material from a process unit or part of a process unit consistent with safety constraints and during which repairs can be effected. An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours is not a process unit shutdown. An unscheduled work practice or operational procedure that would stop production from a process unit or part of a process unit for a shorter period of time than would be required to clear the process unit or part of the process unit of materials and start up the unit, and would result in greater emissions than delay of repair of leaking components until the next scheduled process unit shutdown, is not a process unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping production are not process unit shutdowns.

Recapture device means an individual unit of equipment capable of and used for the purpose of recovering chemicals, but not normally for use, reuse, or sale. Recapture devices include, but are not limited to, absorbers, carbon absorbers, and condensers.

Recovery device means an individual unit of equipment capable of and normally used for the purpose of recovering chemicals for fuel value (i.e., net positive heating value), use, reuse, or for sale for fuel value, use or reuse. Recovery devices include, but are not limited to, absorbers, carbon absorbers, and condensers. For purposes of the monitoring, recordkeeping, and reporting requirements of this subpart, recapture devices are considered recovery devices.

Repaired means that equipment:

(1) Is adjusted, or otherwise altered, to eliminate a leak as defined in the applicable sections of this subpart, and

(2) Unless otherwise specified in applicable provisions of this subpart, is monitored as specified in §63.180 (b) and (c), as appropriate, to verify that emissions from the equipment are below the applicable leak definition.

Routed to a process or route to a process means the emissions are conveyed by hard-piping or a closed vent system to any enclosed portion of a process unit where the emissions are predominately recycled and/or consumed in the same manner as a material that fulfills the same function in the process; and/or transformed by chemical reaction into materials that are not organic hazardous air pollutants; and/or incorporated into a product; and/or recovered.

Sampling connection system means an assembly of equipment within a process unit used during periods of representative operation to take samples of the process fluid. Equipment used to take non-routine grab samples is not considered a sampling connection system.

Screwed connector means a threaded pipe fitting where the threads are cut on the pipe wall and the fitting requires only two pieces to make the connection (i.e., the pipe and the fitting).

Sensor means a device that measures a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level.

Set pressure means the pressure at which a properly operating pressure relief device begins to open to relieve atypical process system operating pressure.

Start-up means the setting in operation of a piece of equipment or a control device that is subject to this subpart.

Surge control vessel means feed drums, recycle drums, and intermediate vessels. Surge control vessels are used within a process unit (as defined in the specific subpart that references this subpart) when in-process storage, mixing, or management of flow rates or volumes is needed to assist in production of a product.

[59 FR 19568, Apr. 22, 1994, as amended at 59 FR 48176, Sept. 20, 1994; 60 FR 18024, 18029, Apr. 10, 1995; 61 FR 31439, June 20, 1996; 62 FR 2788, Jan. 17, 1997]

§ 63.162 Standards: General.

(a) Compliance with this subpart will be determined by review of the records required by §63.181 of this subpart and the reports required by §63.182 of this subpart, review of performance test results, and by inspections.

(b)(1) An owner or operator may request a determination of alternative means of emission limitation to the requirements of §§63.163 through 63.170, and §§63.172 through 63.174 of this subpart as provided in §63.177.

(2) If the Administrator makes a determination that a means of emission limitation is a permissible alternative to the requirements of §§63.163 through 63.170, and §§63.172 through 63.174 of this subpart, the owner or operator shall comply with the alternative.

(c) Each piece of equipment in a process unit to which this subpart applies shall be identified such that it can be distinguished readily from equipment that is not subject to this subpart. Identification of the equipment does not require physical tagging of the equipment. For example, the equipment may be identified on a plant site plan, in log entries, or by designation of process unit boundaries by some form of weatherproof identification.

(d) Equipment that is in vacuum service is excluded from the requirements of this subpart.

(e) Equipment that is in organic HAP service less than 300 hours per calendar year is excluded from the requirements of §§63.163 through 63.174 of this subpart and §63.178 of this subpart if it is identified as required in §63.181(j) of this subpart.

(f) When each leak is detected as specified in §§63.163 and 63.164; §§63.168 and 63.169; and §§63.172 through 63.174 of this subpart, the following requirements apply:

(1) Clearly identify the leaking equipment.

(2) The identification on a valve may be removed after it has been monitored as specified in §§63.168(f)(3), and 63.175(e)(7)(i)(D) of this subpart, and no leak has been detected during the follow-up monitoring. If the owner or operator elects to comply using the provisions of §63.174(c)(1)(i) of this subpart, the identification on a connector may be removed after it is monitored as specified in §63.174(c)(1)(i) and no leak is detected during that monitoring.

(3) The identification which has been placed on equipment determined to have a leak, except for a valve or for a connector that is subject to the provisions of §63.174(c)(1)(i), may be removed after it is repaired.

(g) Except as provided in paragraph (g)(1) of this section, all terms in this subpart that define a period of time for completion of required tasks (e.g., weekly, monthly, quarterly, annual), refer to the standard calendar periods unless specified otherwise in the section or subsection that imposes the requirement.

(1) If the initial compliance date does not coincide with the beginning of the standard calendar period, an owner or operator may elect to utilize a period beginning on the compliance date, or may elect to comply in accordance with the provisions of paragraphs (g)(2) or (g)(3) of this section.

(2) Time periods specified in this subpart for completion of required tasks may be changed by mutual agreement between the owner or operator and the Administrator, as specified in subpart A of this part. For each time period that is changed by agreement, the revised period shall remain in effect until it is changed. A new request is not necessary for each recurring period.

(3) Except as provided in paragraph (g)(1) or (g)(2) of this section, where the period specified for compliance is a standard calendar period, if the initial compliance date does not coincide with the beginning of the calendar period, compliance shall be required according to the schedule specified in paragraphs (g)(3)(i) or (g)(3)(ii) of this section, as appropriate.

(i) Compliance shall be required before the end of the standard calendar period within which the compliance deadline occurs, if there remain at least 3 days for tasks that must be performed weekly, at least 2 weeks for tasks that must be performed monthly, at least 1 month for tasks that must be performed each quarter, or at least 3 months for tasks that must be performed annually; or

(ii) In all other cases, compliance shall be required before the end of the first full standard calendar period after the period within which the initial compliance deadline occurs.

(4) In all instances where a provision of this subpart requires completion of a task during each of multiple successive periods, an owner or operator may perform the required task at any time during each period, provided the task is conducted at a reasonable interval after completion of the task during the previous period.

(h) In all cases where the provisions of this subpart require an owner or operator to repair leaks by a specified time after the leak is detected, it is a violation of this subpart to fail to take action to repair the leaks within the specified time. If action is taken to repair the leaks within the specified time, failure of that action to successfully repair the leak is not a violation of this subpart. However, if the repairs are unsuccessful, a leak is detected and the owner or operator shall take further action as required by applicable provisions of this subpart.

[59 FR 19568, Apr. 22, 1994, as amended at 59 FR 48176, Sept. 20, 1994; 62 FR 2789, Jan. 17, 1997; 68 FR 37345, June 23, 2003]

§ 63.163 Standards: Pumps in light liquid service.

(a) The provisions of this section apply to each pump that is in light liquid service.

(1) The provisions are to be implemented on the dates specified in the specific subpart in 40 CFR part 63 that references this subpart in the phases specified below:

(i) For each group of existing process units at existing sources subject to the provisions of subparts F or I of this part, the phases of the standard are:

(A) Phase I, beginning on the compliance date;

(B) Phase II, beginning no later than 1 year after the compliance date; and

(C) Phase III, beginning no later than 21/2years after the compliance date.

(ii) For new sources subject to the provisions of subparts F or I of this part, the applicable phases of the standard are:

(A) After initial start-up, comply with the Phase II requirements; and

(B) Beginning no later than 1 year after initial start-up, comply with the Phase III requirements.

(2) The owner or operator of a source subject to the provisions of subparts F or I of this part may elect to meet the requirements of a later phase during the time period specified for an earlier phase.

(3) Sources subject to other subparts in 40 CFR part 63 that reference this subpart shall comply on the dates specified in the applicable subpart.

(b)(1) The owner or operator of a process unit subject to this subpart shall monitor each pump monthly to detect leaks by the method specified in §63.180(b) of this subpart and shall comply with the requirements of paragraphs (a) through (d) of this section, except as provided in §63.162(b) of this subpart and paragraphs (e) through (j) of this section.

(2) The instrument reading, as determined by the method as specified in §63.180(b) of this subpart, that defines a leak in each phase of the standard is:

(i) For Phase I, an instrument reading of 10,000 parts per million or greater.

(ii) For Phase II, an instrument reading of 5,000 parts per million or greater.

(iii) For Phase III, an instrument reading of:

(A) 5,000 parts per million or greater for pumps handling polymerizing monomers;

(B) 2,000 parts per million or greater for pumps in food/medical service; and

(C) 1,000 parts per million or greater for all other pumps.

(3) Each pump shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal, a leak is detected.

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in paragraph (c)(3) of this section or §63.171 of this subpart.

(2) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. First attempts at repair include, but are not limited to, the following practices where practicable:

(i) Tightening of packing gland nuts.

(ii) Ensuring that the seal flush is operating at design pressure and temperature.

(3) For pumps in Phase III to which a 1,000 parts per million leak definition applies, repair is not required unless an instrument reading of 2,000 parts per million or greater is detected.

(d)(1) The owner or operator shall decide no later than the first monitoring period whether to calculate percent leaking pumps on a process unit basis or on a source-wide basis. Once the owner or operator has decided, all subsequent percent calculations shall be made on the same basis.

(2) If, in Phase III, calculated on a 6-month rolling average, the greater of either 10 percent of the pumps in a process unit or three pumps in a process unit leak, the owner or operator shall implement a quality improvement program for pumps that complies with the requirements of §63.176 of this subpart.

(3) The number of pumps at a process unit shall be the sum of all the pumps in organic HAP service, except that pumps found leaking in a continuous process unit within 1 month after start-up of the pump shall not count in the percent leaking pumps calculation for that one monitoring period only.

(4) Percent leaking pumps shall be determined by the following equation:

$\%P_L=((P_L-P_S)/(P_T-P_S))\times100$

where:

$\%P_L$=Percent leaking pumps

P_L=Number of pumps found leaking as determined through monthly monitoring as required in paragraphs (b)(1) and (b)(2) of this section.

P_T=Total pumps in organic HAP service, including those meeting the criteria in paragraphs (e) and (f) of this section.

P_S=Number of pumps leaking within 1 month of start-up during the current monitoring period.

(e) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraphs (a) through (d) of this section, provided the following requirements are met:

(1) Each dual mechanical seal system is:

(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or

(ii) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of §63.172 of this subpart; or

(iii) Equipped with a closed-loop system that purges the barrier fluid into a process stream.

(2) The barrier fluid is not in light liquid service.

(3) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(4) Each pump is checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

(i) If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the pump shall be monitored as specified in §63.180(b) of this subpart to determine if there is a leak of organic HAP in the barrier fluid.

(ii) If an instrument reading of 1,000 parts per million or greater is measured, a leak is detected.

(5) Each sensor as described in paragraph (e)(3) of this section is observed daily or is equipped with an alarm unless the pump is located within the boundary of an unmanned plant site.

(6)(i) The owner or operator determines, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal system, the barrier fluid system, or both.

(ii) If indications of liquids dripping from the pump seal exceed the criteria established in paragraph (e)(6)(i) of this section, or if, based on the criteria established in paragraph (e)(6)(i) of this section, the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected.

(iii) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §63.171 of this subpart.

(iv) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(f) Any pump that is designed with no externally actuated shaft penetrating the pump housing is exempt from the requirements of paragraphs (a) through (c) of this section.

(g) Any pump equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system or to a control device that complies with the requirements of §63.172 of this subpart is exempt from the requirements of paragraphs (b) through (e) of this section.

(h) Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (b)(3) and (e)(4) of this section, and the daily requirements of paragraph (e)(5) of this section, provided that each pump is visually inspected as often as practicable and at least monthly.

(i) If more than 90 percent of the pumps at a process unit meet the criteria in either paragraph (e) or (f) of this section, the process unit is exempt from the requirements of paragraph (d) of this section.

(j) Any pump that is designated, as described in §63.181(b)(7)(i) of this subpart, as an unsafe-to-monitor pump is exempt from the requirements of paragraphs (b) through (e) of this section if:

(1) The owner or operator of the pump determines that the pump is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraphs (b) through (d) of this section; and

(2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable.

[59 FR 19568, Apr. 22, 1994, as amended at 59 FR 48176, Sept. 20, 1994; 61 FR 31439, June 20, 1996; 62 FR 2789, Jan. 17, 1997; 64 FR 20198, Apr. 26, 1999]

§ 63.164 Standards: Compressors.

(a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of process fluid to the atmosphere, except as provided in §63.162(b) of this subpart and paragraphs (h) and (i) of this section.

(b) Each compressor seal system as required in paragraph (a) of this section shall be:

(1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or

(2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of §63.172 of this subpart; or

(3) Equipped with a closed-loop system that purges the barrier fluid directly into a process stream.

(c) The barrier fluid shall not be in light liquid service.

(d) Each barrier fluid system as described in paragraphs (a) through (c) of this section shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

(e)(1) Each sensor as required in paragraph (d) of this section shall be observed daily or shall be equipped with an alarm unless the compressor is located within the boundary of an unmanned plant site.

(2) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(f) If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined under paragraph (e)(2) of this section, a leak is detected.

(g)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §63.171 of this subpart.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(h) A compressor is exempt from the requirements of paragraphs (a) through (g) of this section if it is equipped with a closed-vent system to capture and transport leakage from the compressor drive shaft seal back to a process or a fuel gas system or to a control device that complies with the requirements of §63.172 of this subpart.

(i) Any compressor that is designated, as described in §63.181(b)(2)(ii) of this subpart, to operate with an instrument reading of less than 500 parts per million above background, is exempt from the requirements of paragraphs (a) through (h) of this section if the compressor:

(1) Is demonstrated to be operating with an instrument reading of less than 500 parts per million above background, as measured by the method specified in §63.180(c) of this subpart; and

(2) Is tested for compliance with paragraph (i)(1) of this section initially upon designation, annually, and at other times requested by the Administrator.

[59 FR 19568, Apr. 22, 1994, as amended at 59 FR 48176, Sept. 20, 1994; 62 FR 2790, Jan. 17, 1997; 64 FR 20198, Apr. 26, 1999]

§ 63.165 Standards: Pressure relief devices in gas/vapor service.

(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with an instrument reading of less than 500 parts per million above background except as provided in paragraph (b) of this section, as measured by the method specified in §63.180(c) of this subpart.

(b)(1) After each pressure release, the pressure relief device shall be returned to a condition indicated by an instrument reading of less than 500 parts per million above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in §63.171 of this subpart.

(2) No later than 5 calendar days after the pressure release and being returned to organic HAP service, the pressure relief device shall be monitored to confirm the condition indicated by an instrument reading of less than 500 parts per million above background, as measured by the method specified in §63.180(c) of this subpart.

(c) Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in §63.172 of this subpart is exempt from the requirements of paragraphs (a) and (b) of this section.

(d)(1) Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (a) and (b) of this section, provided the owner or operator complies with the requirements in paragraph (d)(2) of this section.

(2) After each pressure release, a rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in §63.171 of this subpart.

[59 FR 19568, Apr. 22, 1994, as amended at 59 FR 48176, Sept. 20, 1994; 62 FR 2790, Jan. 17, 1997]

§ 63.166 Standards: Sampling connection systems.

(a) Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in §63.162(b) of this subpart. Gases displaced during filling of the sample container are not required to be collected or captured.

(b) Each closed-purge, closed-loop, or closed-vent system as required in paragraph (a) of this section shall:

(1) Return the purged process fluid directly to the process line; or

(2) Collect and recycle the purged process fluid to a process; or

(3) Be designed and operated to capture and transport the purged process fluid to a control device that complies with the requirements of §63.172 of this subpart; or

(4) Collect, store, and transport the purged process fluid to a system or facility identified in paragraph (b)(4)(i), (ii), or (iii) of this section.

(i) A waste management unit as defined in §63.111 of subpart G of this part, if the waste management unit is subject to, and operated in compliance with the provisions of subpart G of this part applicable to group 1 wastewater streams. If the purged process fluid does not contain any organic HAP listed in Table 9 of subpart G of part 63, the waste management unit need not be subject to, and operated in compliance with the requirements of 40 CFR part 63, subpart G applicable to group 1 wastewater streams provided the facility has an NPDES permit or sends the wastewater to an NPDES permitted facility.

(ii) A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266; or

(iii) A facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261.

(c) *In-situ* sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (a) and (b) of this section.

[59 FR 19568, Apr. 22, 1994, as amended at 61 FR 31439, June 20, 1996]

§ 63.167 Standards: Open-ended valves or lines.

(a)(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in §63.162(b) of this subpart and paragraphs (d) and (e) of this section.

(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance or repair.

(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

(c) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (a) of this section at all other times.

(d) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of paragraphs (a), (b) and (c) of this section.

(e) Open-ended valves or lines containing materials which would autocatalytically polymerize or, would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraphs (a) through (c) of this section are exempt from the requirements of paragraph (a) through (c) of this section.

[59 FR 19568, Apr. 22, 1994, as amended at 61 FR 31440, June 20, 1996]

§ 63.168 Standards: Valves in gas/vapor service and in light liquid service.

(a) The provisions of this section apply to valves that are either in gas service or in light liquid service.

(1) The provisions are to be implemented on the dates set forth in the specific subpart in 40 CFR part 63 that references this subpart as specified in paragraph (a)(1)(i), (a)(1)(ii), or (a)(1)(iii) of this section.

(i) For each group of existing process units at existing sources subject to the provisions of subpart F or I of this part, the phases of the standard are:

(A) Phase I, beginning on the compliance date;

(B) Phase II, beginning no later than 1 year after the compliance date; and

(C) Phase III, beginning no later than 21/2years after the compliance date.

(ii) For new sources subject to the provisions of subpart F or I of this part, the applicable phases of the standard are:

(A) After initial start-up, comply with the Phase II requirements; and

(B) Beginning no later than 1 year after initial start-up, comply with the Phase III requirements.

(iii) Sources subject to other subparts in 40 CFR part 63 that reference this subpart shall comply on the dates specified in the applicable subpart.

(2) The owner or operator of a source subject to this subpart may elect to meet the requirements of a later phase during the time period specified for an earlier phase.

(3) The use of monitoring data generated before April 22, 1994 to qualify for less frequent monitoring is governed by the provisions of §63.180(b)(6) of this subpart.

(b) The owner or operator of a source subject to this subpart shall monitor all valves, except as provided in §63.162(b) of this subpart and paragraphs (h) and (i) of this section, at the intervals specified in paragraphs (c) and (d) of this section and shall comply with all other provisions of this section, except as provided in §63.171, §63.177, §63.178, and §63.179 of this subpart.

(1) The valves shall be monitored to detect leaks by the method specified in §63.180(b) of this subpart.

(2) The instrument reading that defines a leak in each phase of the standard is:

(i) For Phase I, an instrument reading of 10,000 parts per million or greater.

(ii) For Phase II, an instrument reading of 500 parts per million or greater.

(iii) For Phase III, an instrument reading of 500 parts per million or greater.

(c) In Phases I and II, each valve shall be monitored quarterly.

(d) In Phase III, the owner or operator shall monitor valves for leaks at the intervals specified below:

(1) At process units with 2 percent or greater leaking valves, calculated according to paragraph (e) of this section, the owner or operator shall either:

(i) Monitor each valve once per month; or

(ii) Within the first year after the onset of Phase III, implement a quality improvement program for valves that complies with the requirements of §63.175 (d) or (e) of this subpart and monitor quarterly.

(2) At process units with less than 2 percent leaking valves, the owner or operator shall monitor each valve once each quarter, except as provided in paragraphs (d)(3) and (d)(4) of this section.

(3) At process units with less than 1 percent leaking valves, the owner or operator may elect to monitor each valve once every 2 quarters.

(4) At process units with less than 0.5 percent leaking valves, the owner or operator may elect to monitor each valve once every 4 quarters.

(e)(1) Percent leaking valves at a process unit shall be determined by the following equation:

$$\%V_L=(V_L/(V_T+V_C))\times 100$$

where:

$\%V_L$=Percent leaking valves as determined through periodic monitoring required in paragraphs (b) through (d) of this section.

V_L=Number of valves found leaking excluding nonrepairables as provided in paragraph (e)(3)(i) of this section.

V_T=Total valves monitored, in a monitoring period excluding valves monitored as required by (f)(3) of this section.

V_C=Optional credit for removed valves=0.67 × net number (i.e., total removed−total added) of valves in organic HAP service removed from process unit after the date set forth in §63.100(k) of subpart F for existing process units, and after the date of initial start-up for new sources. If credits are not taken, then V_C=0.

(2) For use in determining monitoring frequency, as specified in paragraph (d) of this section, the percent leaking valves shall be calculated as a rolling average of two consecutive monitoring periods for monthly, quarterly, or semiannual monitoring programs; and as an average of any three out of four consecutive monitoring periods for annual monitoring programs.

(3)(i) Nonrepairable valves shall be included in the calculation of percent leaking valves the first time the valve is identified as leaking and nonrepairable and as required to comply with paragraph (e)(3)(ii) of this section. Otherwise, a number of nonrepairable valves (identified and included in the percent leaking calculation in a previous period) up to a maximum of 1 percent of the total number of valves in organic HAP service at a process unit may be excluded from calculation of percent leaking valves for subsequent monitoring periods.

(ii) If the number of nonrepairable valves exceeds 1 percent of the total number of valves in organic HAP service at a process unit, the number of nonrepairable valves exceeding 1 percent of the total number of valves in organic HAP service shall be included in the calculation of percent leaking valves.

(f)(1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in §63.171 of this subpart.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(3) When a leak has been repaired, the valve shall be monitored at least once within the first 3 months after its repair.

(i) The monitoring shall be conducted as specified in §63.180 (b) and (c), as appropriate, to determine whether the valve has resumed leaking.

(ii) Periodic monitoring required by paragraphs (b) through (d) of this section may be used to satisfy the requirements of this paragraph (f)(3), if the timing of the monitoring period coincides with the time specified in this paragraph (f)(3). Alternatively, other monitoring may be performed to satisfy the requirements of this paragraph (f)(3), regardless of whether the timing of the monitoring period for periodic monitoring coincides with the time specified in this paragraph (f)(3).

(iii) If a leak is detected by monitoring that is conducted pursuant to paragraph (f)(3) of this section, the owner or operator shall follow the provisions of paragraphs (f)(3)(iii)(A) and (f)(3)(iii)(B) of this section, to determine whether that valve must be counted as a leaking valve for purposes of §63.168(e) of this subpart.

(A) If the owner or operator elected to use periodic monitoring required by paragraphs (b) through (d) of this section to satisfy the requirements of paragraph (f)(3) of this section, then the valve shall be counted as a leaking valve.

(B) If the owner or operator elected to use other monitoring, prior to the periodic monitoring required by paragraphs (b) through (d) of this section, to satisfy the requirements of paragraph (f)(3) of this section, then the valve shall be counted as a leaking valve unless it is repaired and shown by periodic monitoring not to be leaking.

(g) First attempts at repair include, but are not limited to, the following practices where practicable:

(1) Tightening of bonnet bolts,

(2) Replacement of bonnet bolts,

(3) Tightening of packing gland nuts, and

(4) Injection of lubricant into lubricated packing.

(h) Any valve that is designated, as described in §63.181(b)(7)(i) of this subpart, as an unsafe-to-monitor valve is exempt from the requirements of paragraphs (b) through (f) of this section if:

(1) The owner or operator of the valve determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraphs (b) through (d) of this section; and

(2) The owner or operator of the valve has a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable.

(i) Any valve that is designated, as described in §63.181(b)(7)(ii) of this subpart, as a difficult-to-monitor valve is exempt from the requirements of paragraphs (b) through (d) of this section if:

(1) The owner or operator of the valve determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface or it is not accessible at anytime in a safe manner;

(2) The process unit within which the valve is located is an existing source or the owner or operator designates less than 3 percent of the total number of valves in a new source as difficult-to-monitor; and

(3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

(j) Any equipment located at a plant site with fewer than 250 valves in organic HAP service is exempt from the requirements for monthly monitoring and a quality improvement program specified in paragraph (d)(1) of this section. Instead, the owner or operator shall monitor each valve in organic HAP service for leaks once each quarter, or comply with paragraph (d)(3) or (d)(4) of this section except as provided in paragraphs (h) and (i) of this section.

[59 FR 19568, Apr. 22, 1994, as amended at 59 FR 48176, Sept. 20, 1994; 61 FR 31440, June 20, 1996; 62 FR 2790, Jan. 17, 1997]

§ 63.169 Standards: Pumps, valves, connectors, and agitators in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service.

(a) Pumps, valves, connectors, and agitators in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and instrumentation systems shall be monitored within 5 calendar days by the method specified in §63.180(b) of this subpart if evidence of a potential leak to the atmosphere is found by visual, audible, olfactory, or any other detection method. If such a potential leak is repaired as required in paragraphs (c) and (d) of this section, it is not necessary to monitor the system for leaks by the method specified in §63.180(b) of this subpart.

(b) If an instrument reading of 10,000 parts per million or greater for agitators, 5,000 parts per million or greater for pumps handling polymerizing monomers, 2,000 parts per million or greater for all other pumps (including pumps in food/medical service), or 500 parts per million or greater for valves, connectors, instrumentation systems, and pressure relief devices is measured, a leak is detected.

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §63.171 of this subpart.

(2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(3) For equipment identified in paragraph (a) of this section that is not monitored by the method specified in §63.180(b), repaired shall mean that the visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated; that no bubbles are observed at potential leak sites during a leak check using soap solution; or that the system will hold a test pressure.

(d) First attempts at repair include, but are not limited to, the practices described under §§63.163(c)(2) and 63.168(g) of this subpart, for pumps and valves, respectively.

[59 FR 19568, Apr. 22, 1994, as amended at 59 FR 48177, Sept. 20, 1994; 60 FR 18029, Apr. 10, 1995; 62 FR 2790, Jan. 17, 1997; 65 FR 78285, Dec. 14, 2000]

§ 63.170 Standards: Surge control vessels and bottoms receivers.

Each surge control vessel or bottoms receiver that is not routed back to the process and that meets the conditions specified in table 2 or table 3 of this subpart shall be equipped with a closed-vent system that routes the organic vapors vented from the surge control vessel or bottoms receiver back to the process or to a control device that complies with the requirements in §63.172 of this subpart, except as provided in §63.162(b) of this subpart, or comply with the requirements of §63.119(b) or (c) of subpart G of this part.

[60 FR 18024, Apr. 10, 1995]

§ 63.171 Standards: Delay of repair.

(a) Delay of repair of equipment for which leaks have been detected is allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur by the end of the next process unit shutdown.

(b) Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in organic HAP service.

(c) Delay of repair for valves, connectors, and agitators is also allowed if:

(1) The owner or operator determines that emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair, and

(2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with §63.172 of this subpart.

(d) Delay of repair for pumps is also allowed if:

(1) Repair requires replacing the existing seal design with a new system that the owner or operator has determined under the provisions of §63.176(d) of this subpart will provide better performance or:

(i) A dual mechanical seal system that meets the requirements of §63.163(e) of this subpart,

(ii) A pump that meets the requirements of §63.163(f) of this subpart, or

(iii) A closed-vent system and control device that meets the requirements of §63.163(g) of this subpart; and

(2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

(e) Delay of repair beyond a process unit shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the second process unit shutdown will not be allowed unless the third process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

[59 FR 19568, Apr. 22, 1994, as amended at 59 FR 48177, Sept. 20, 1994; 65 FR 78285, Dec. 14, 2000]

§ 63.172 Standards: Closed-vent systems and control devices.

(a) Owners or operators of closed-vent systems and control devices used to comply with provisions of this subpart shall comply with the provisions of this section, except as provided in §63.162(b) of this subpart.

(b) Recovery or recapture devices (e.g., condensers and absorbers) shall be designed and operated to recover the organic hazardous air pollutant emissions or volatile organic compounds emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts par million by volume, whichever is less stringent. The 20 parts per million by volume performance standard is not applicable to the provisions of §63.179.

(c) Enclosed combustion devices shall be designed and operated to reduce the organic hazardous air pollutant emissions or volatile organic compounds emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent, or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 °C.

(d) Flares used to comply with this subpart shall comply with the requirements of §63.11(b) of subpart A of this part.

(e) Owners or operators of control devices that are used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their design.

Note: The intent of this provision is to ensure proper operation and maintenance of the control device.

(f) Except as provided in paragraphs (k) and (l) of this section, each closed-vent system shall be inspected according to the procedures and schedule specified in paragraphs (f)(1) and (f)(2) of this section.

(1) If the closed-vent system is constructed of hard-piping, the owner or operator shall:

(i) Conduct an initial inspection according to the procedures in paragraph (g) of this section, and

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

(2) If the vapor collection system or closed-vent system is constructed of duct work, the owner or operator shall:

(i) Conduct an initial inspection according to the procedures in paragraph (g) of this section, and

(ii) Conduct annual inspections according to the procedures in paragraph (g) of this section.

(g) Each closed-vent system shall be inspected according to the procedures in §63.180(b) of this subpart.

(h) Leaks, as indicated by an instrument reading greater than 500 parts per million above background or by visual inspections, shall be repaired as soon as practicable, except as provided in paragraph (i) of this section.

(1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(2) Repair shall be completed no later than 15 calendar days after the leak is detected, except as provided in paragraph (i) of this section.

(i) Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.

(j) For each closed-vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, the owner or operator shall comply with the provisions of either paragraph (j)(1) or (j)(2) of this section, except as provided in paragraph (j)(3) of this section.

(1) Install, set or adjust, maintain, and operate a flow indicator that takes a reading at least once every 15 minutes. Records shall be generated as specified in §63.118(a)(3) of subpart G of this part. The flow indicator shall be installed at the entrance to any bypass line; or

(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 the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass line.

(3) 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 paragraph.

(k) Any parts of the closed-vent system that are designated, as described in paragraph 63.181(b)(7)(i), as unsafe to inspect are exempt from the inspection requirements of paragraphs (f)(1) and (f)(2) of this section if:

(1) The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraph (f)(1) or (f)(2) of this section; and

(2) The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times, but not more frequently than annually.

(l) Any parts of the closed-vent system that are designated, as described in §63.181 (b)(7)(i) of this subpart, as difficult to inspect are exempt from the inspection requirements of paragraphs (f)(1) and (f)(2) of this section if:

(1) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and

(2) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years.

(m) Whenever organic HAP emissions are vented to a closed-vent system or control device used to comply with the provisions of this subpart, such system or control device shall be operating.

(n) After the compliance dates specified in §63.100 of subpart F of this part, the owner or operator of any control device subject to this subpart that is also subject to monitoring, recordkeeping, and reporting requirements in 40 CFR part 264, subpart BB, or is subject to monitoring and recordkeeping requirements in 40 CFR part 265, subpart BB, may elect to comply either with the monitoring, recordkeeping, and reporting requirements of this subpart, or with the monitoring, recordkeeping, and reporting requirements in 40 CFR parts 264 and/or 265, as described in this paragraph, which shall constitute compliance with the monitoring, recordkeeping and reporting requirements of this subpart. The owner or operator shall identify which option has been chosen, in the next periodic report required by §63.182(d).

[59 FR 19568, Apr. 22, 1994, as amended at 59 FR 48177, Sept. 20, 1994; 61 FR 31440, June 20, 1996; 62 FR 2790, Jan. 17, 1997]

§ 63.173 Standards: Agitators in gas/vapor service and in light liquid service.

(a)(1) Each agitator shall be monitored monthly to detect leaks by the methods specified in §63.180(b) of this subpart, except as provided in §63.162(b) of this subpart.

(2) If an instrument reading of 10,000 parts per million or greater is measured, a leak is detected.

(b)(1) Each agitator shall be checked by visual inspection each calendar week for indications of liquids dripping from the agitator.

(2) If there are indications of liquids dripping from the agitator, a leak is detected.

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §63.171 of this subpart.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(d) Each agitator equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (a) of this section, provided the requirements specified in paragraphs (d)(1) through (d)(6) of this section are met:

(1) Each dual mechanical seal system is:

(i) Operated with the barrier fluid at a pressure that is at all times greater than the agitator stuffing box pressure; or

(ii) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of §63.172 of this subpart; or

(iii) Equipped with a closed-loop system that purges the barrier fluid into a process stream.

(2) The barrier fluid is not in light liquid organic HAP service.

(3) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(4) Each agitator is checked by visual inspection each calendar week for indications of liquids dripping from the agitator seal.

(i) If there are indications of liquids dripping from the agitator seal at the time of the weekly inspection, the agitator shall be monitored as specified in §63.180(b) of this subpart to determine the presence of organic HAP in the barrier fluid.

(ii) If an instrument reading of 10,000 parts per million or greater is measured, a leak is detected.

(5) Each sensor as described in paragraph (d)(3) of this section is observed daily or is equipped with an alarm unless the agitator is located within the boundary of an unmanned plant site.

(6)(i) The owner or operator determines, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal system, the barrier fluid system, or both.

(ii) If indications of liquids dripping from the agitator seal exceed the criteria established in paragraph (d)(6)(i) of this section, or if, based on the criteria established in paragraph (d)(6)(i) of this section, the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected.

(iii) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §63.171 of this subpart.

(iv) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(e) Any agitator that is designed with no externally actuated shaft penetrating the agitator housing is exempt from paragraphs (a) through (c) of this section.

(f) Any agitator equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a process or fuel gas system or to a control device that complies with the requirements of §63.172 of this subpart is exempt from the requirements of paragraphs (a) through (c) of the section.

(g) Any agitator that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of paragraphs (b)(1) and (d)(4) of this section, and the daily requirements of paragraph (d)(5) of this section, provided that each agitator is visually inspected as often as practical and at least monthly.

(h) Any agitator that is difficult-to-monitor is exempt from the requirements of paragraphs (a) through (d) of this section if:

(1) The owner or operator determines that the agitator cannot be monitored without elevating the monitoring personnel more than two meters above a support surface or it is not accessible at anytime in a safe manner;

(2) The process unit within which the agitator is located is an existing source or the owner or operator designates less than three percent of the total number of agitators in a new source as difficult-to-monitor; and

(3) The owner or operator follows a written plan that requires monitoring of the agitator at least once per calendar year.

(i) Any agitator that is obstructed by equipment or piping that prevents access to the agitator by a monitor probe is exempt from the monitoring requirements of paragraphs (a) through (d) of this section.

(j) Any agitator that is designated, as described in §63.181(b)(7)(i) of this subpart, as an unsafe-to-monitor agitator is exempt from the requirements of paragraphs (a) through (d) of this section if:

(1) The owner or operator of the agitator determines that the agitator is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraphs (a) through (d) of this section; and

(2) The owner or operator of the agitator has a written plan that requires monitoring of the agitator as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable.

[59 FR 19568, Apr. 22, 1994, as amended at 61 FR 31440, June 20, 1996; 62 FR 2791, Jan. 17, 1997; 64 FR 20198, Apr. 26, 1999]

§ 63.174 Standards: Connectors in gas/vapor service and in light liquid service.

(a) The owner or operator of a process unit subject to this subpart shall monitor all connectors in gas/vapor and light liquid service, except as provided in §63.162(b) of this subpart, and in paragraphs (f) through (h) of this section, at the intervals specified in paragraph (b) of this section.

(1) The connectors shall be monitored to detect leaks by the method specified in §63.180(b) of this subpart.

(2) If an instrument reading greater than or equal to 500 parts per million is measured, a leak is detected.

(b) The owner or operator shall monitor for leaks at the intervals specified in either paragraph (b)(1) or (b)(2) of this section and in paragraph (b)(3) of this section.

(1) For each group of existing process units within an existing source, by no later than 12 months after the compliance date, the owner or operator shall monitor all connectors, except as provided in paragraphs (f) through (h) of this section.

(2) For new sources, within the first 12 months after initial start-up or by no later than 12 months after the date of promulgation of a specific subpart that references this subpart, whichever is later, the owner or operator shall monitor all connectors, except as provided in paragraphs (f) through (h) of this section.

(3) After conducting the initial survey required in paragraph (b)(1) or (b)(2) of this section, the owner or operator shall perform all subsequent monitoring of connectors at the frequencies specified in paragraphs (b)(3)(i) through (b)(3)(v) of this section, except as provided in paragraph (c)(2) of this section:

(i) Once per year (i.e., 12-month period), if the percent leaking connectors in the process unit was 0.5 percent or greater during the last required annual or biennial monitoring period.

(ii) Once every 2 years, if the percent leaking connectors was less than 0.5 percent during the last required monitoring period. An owner or operator may comply with this paragraph by monitoring at least 40 percent of the connectors in the first year and the remainder of the connectors in the second year. The percent leaking connectors will be calculated for the total of all monitoring performed during the 2-year period.

(iii) If the owner or operator of a process unit in a biennial leak detection and repair program calculates less than 0.5 percent leaking connectors from the 2-year monitoring period, the owner or operator may monitor the connectors one time every 4 years. An owner or operator may comply with the requirements of this paragraph by monitoring at least 20 percent of the connectors each year until all connectors have been monitored within 4 years.

(iv) If a process unit complying with the requirements of paragraph (b) of this section using a 4-year monitoring interval program has greater than or equal to 0.5 percent but less than 1 percent leaking connectors, the owner or operator shall increase the monitoring frequency to one time every 2 years. An owner or operator may comply with the requirements of this paragraph by monitoring at least 40 percent of the connectors in the first year and the remainder of the connectors in the second year. The owner or operator may again elect to use the provisions of paragraph (b)(3)(iii) of this section when the percent leaking connectors decreases to less than 0.5 percent.

(v) If a process unit complying with requirements of paragraph (b)(3)(iii) of this section using a 4-year monitoring interval program has 1 percent or greater leaking connectors, the owner or operator shall increase the monitoring frequency to one time per year. The owner or operator may again elect to use the provisions of paragraph (b)(3)(iii) of this section when the percent leaking connectors decreases to less than 0.5 percent.

(4) The use of monitoring data generated before April 22, 1994 to qualify for less frequent monitoring is governed by the provisions of §63.180(b)(6).

(c)(1)(i) Except as provided in paragraph (c)(1)(ii) of this section, each connector that has been opened or has otherwise had the seal broken shall be monitored for leaks when it is reconnected or within the first 3 months after being returned to organic hazardous air pollutants service. If the monitoring detects a leak, it shall be repaired according to the provisions of paragraph (d) of this section, unless it is determined to be nonrepairable, in which case it is counted as a nonrepairable connector for the purposes of paragraph (i)(2) of this section.

(ii) As an alternative to the requirements in paragraph (c)(1)(i) of this section, an owner or operator may choose not to monitor connectors that have been opened or otherwise had the seal broken. In this case, the owner or operator may not count nonrepairable connectors for the purposes of paragraph (i)(2) of this section. The owner or operator shall calculate the percent leaking connectors for the monitoring periods described in paragraph (b) of this section, by setting the nonrepairable component, C_{AN}, in the equation in paragraph (i)(2) of this section to zero for all monitoring periods.

(iii) An owner or operator may switch alternatives described in paragraphs (c)(1) (i) and (ii) of this section at the end of the current monitoring period he is in, provided that it is reported as required in §63.182 of this subpart and begin the new alternative in annual monitoring. The initial monitoring in the new alternative shall be completed no later than 12 months after reporting the switch.

(2) As an alternative to the requirements of paragraph (b)(3) of this section, each screwed connector 2 inches or less in nominal inside diameter installed in a process unit before the dates specified in paragraph (c)(2)(iii) or (c)(2)(iv) of this section may:

(i) Comply with the requirements of §63.169 of this subpart, and

(ii) Be monitored for leaks within the first 3 months after being returned to organic hazardous air pollutants service after having been opened or otherwise had the seal broken. If that monitoring detects a leak, it shall be repaired according to the provisions of paragraph (d) of this section.

(iii) For sources subject to subparts F and I of this part, the provisions of paragraph (c)(2) of this section apply to screwed connectors installed before December 31, 1992.

(iv) For sources not identified in paragraph (c)(2)(iii) of this section, the provisions of paragraph (c)(2) of this section apply to screwed connectors installed before the date of proposal of the applicable subpart of this part that references this subpart.

(d) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in paragraph (g) of this section and in §63.171 of this subpart. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(e) [Reserved]

(f) Any connector that is designated, as described in §63.181(b)(7)(i) of this subpart, as an unsafe-to-monitor connector is exempt from the requirements of paragraph (a) of this section if:

(1) The owner or operator determines that the connector is unsafe to monitor because personnel would be exposed to an immediate danger as a result of complying with paragraphs (a) through (e) of this section; and

(2) The owner or operator has a written plan that requires monitoring of the connector as frequently as practicable during safe to monitor periods, but not more frequently than the periodic schedule otherwise applicable.

(g) Any connector that is designated, as described in §63.181(b)(7)(iii) of this subpart, as an unsafe-to-repair connector is exempt from the requirements of paragraphs (a), (d), and (e) of this section if:

(1) The owner or operator determines that repair personnel would be exposed to an immediate danger as a consequence of complying with paragraph (d) of this section; and

(2) The connector will be repaired before the end of the next scheduled process unit shutdown.

(h)(1) Any connector that is inaccessible or is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined), is exempt from the monitoring requirements of paragraphs (a) and (c) of this section and from the recordkeeping and reporting requirements of §63.181 and §63.182 of this subpart. An inaccessible connector is one that is:

(i) Buried;

(ii) Insulated in a manner that prevents access to the connector by a monitor probe;

(iii) Obstructed by equipment or piping that prevents access to the connector by a monitor probe;

(iv) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold which would allow access to connectors up to 7.6 meters (25 feet) above the ground;

(v) Inaccessible because it would require elevating the monitoring personnel more than 2 meters above a permanent support surface or would require the erection of scaffold; or

(vi) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment.

(2) If any inaccessible or ceramic or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the leak shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in §63.171 of this subpart and paragraph (g) of this section.

(3) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(i) For use in determining the monitoring frequency, as specified in paragraph (b) of this section, the percent leaking connectors shall be calculated as specified in paragraphs (i)(1) and (i)(2) of this section.

(1) For the first monitoring period, use the following equation:

$$\% C_L = C_L/(C_t + C_C) \times 100$$

where:

$\% C_L$= Percent leaking connectors as determined through periodic monitoring required in paragraphs (a) and (b) of this section.

C_L= Number of connectors measured at 500 parts per million or greater, by the method specified in §63.180(b) of this subpart.

C_t= Total number of monitored connectors in the process unit.

C_C= Optional credit for removed connectors = 0.67 × net (i.e., total removed—total added) number of connectors in organic hazardous air pollutants service removed from the process unit after the compliance date set forth in the applicable subpart for existing process units, and after the date of initial start-up for new process units. If credits are not taken, then C_C= 0.

(2) For subsequent monitoring periods, use the following equation:

$$\% C_L = [(C_L - C_{AN})/(C_t + C_C)] \times 100$$

where:

$\% C_L$= Percent leaking connectors as determined through periodic monitoring required in paragraphs (a) and (b) of this section.

C_L= Number of connectors, including nonrepairables, measured at 500 parts per million or greater, by the method specified in §63.180(b) of this subpart.

C_{AN}= Number of allowable nonrepairable connectors, as determined by monitoring required in paragraphs (b)(3) and (c) of this section, not to exceed 2 percent of the total connector population, C_t.

C_t= Total number of monitored connectors, including nonrepairables, in the process unit.

C_C= Optional credit for removed connectors = 0.67 × net number (i.e., total removed—total added) of connectors in organic hazardous air pollutants service removed from the process unit after the compliance date set forth in the applicable subpart for existing process units, and after the date of initial start-up for new process units. If credits are not taken, then C_C= 0.

(j) Optional credit for removed connectors. If an owner or operator eliminates a connector subject to monitoring under paragraph (b) of this section, the owner or operator may receive credit for elimination of the connector, as described in paragraph (i) of this section, provided the requirements in paragraphs (j)(1) through (j)(4) are met.

(1) The connector was welded after the date of proposal of the specific subpart that references this subpart.

(2) The integrity of the weld is demonstrated by monitoring it according to the procedures in §63.180(b) of this subpart or by testing using X-ray, acoustic monitoring, hydrotesting, or other applicable method.

(3) Welds created after the date of proposal but before the date of promulgation of a specific subpart that references this subpart are monitored or tested by 3 months after the compliance date specified in the applicable subpart.

(4) Welds created after promulgation of the subpart that references this subpart are monitored or tested within 3 months after being welded.

(5) If an inadequate weld is found or the connector is not welded completely around the circumference, the connector is not considered a welded connector and is therefore not exempt from the provisions of this subpart.

[59 FR 19568, Apr. 22, 1994, as amended at 59 FR 48177, Sept. 20, 1994; 61 FR 31440, June 20, 1996; 62 FR 2791, Jan. 17, 1997]

§ 63.175 Quality improvement program for valves.

(a) In Phase III, an owner or operator may elect to comply with one of the alternative quality improvement programs specified in paragraphs (d) and (e) of this section. The decision to use one of these alternative provisions to comply with the requirements of §63.168(d)(1)(ii) of this subpart must be made during the first year of Phase III for existing process units and for new process units.

(b) An owner or operator of a process unit subject to the requirements of paragraph (d) or (e) of this section shall comply with those requirements until the process unit has fewer than 2 percent leaking valves, calculated as a rolling average of 2 consecutive quarters, as specified in §63.168(e) of this subpart.

(c) After the process unit has fewer than 2 percent leaking valves, the owner or operator may elect to comply with the requirements in §63.168 of this subpart, to continue to comply with the requirements in paragraph (e) (or (d), if appropriate) of this section, or comply with both the requirements in §63.168 and §63.175.

(1) If the owner or operator elects to continue the quality improvement program, the owner or operator is exempt from the requirements for performance trials as specified in paragraph (e)(6) of this section, or further progress as specified in paragraph (d)(4) of this section, as long as the process unit has fewer than 2 percent leaking valves calculated according to §63.168(e).

(2) If the owner or operator elects to comply with both paragraph (e) of this section and §63.168 of this subpart, he may also take advantage of the lower monitoring frequencies associated with lower leak rates in §63.168 (d)(2), (d)(3), and (d)(4) of this subpart.

(3) If the owner or operator elects not to continue the quality improvement program, the program is no longer an option if the process unit again exceeds 2 percent leaking valves, and in such case, monthly monitoring will be required.

(d) The following requirements shall be met if an owner or operator elects to use a quality improvement program to demonstrate further progress:

(1) The owner or operator shall continue to comply with the requirements in §63.168 of this subpart except each valve shall be monitored quarterly.

(2) The owner or operator shall collect the following data, and maintain records as required in §63.181(h)(1) of this subpart, for each valve in each process unit subject to the quality improvement program:

(i) The maximum instrument reading observed in each monitoring observation before repair, the response factor for the stream if appropriate, the instrument model number, and date of the observation.

(ii) Whether the valve is in gas or light liquid service.

(iii) If a leak is detected, the repair methods used and the instrument readings after repair.

(3) The owner or operator shall continue to collect data on the valves as long as the process unit remains in the quality improvement program.

(4) The owner or operator must demonstrate progress in reducing the percent leaking valves each quarter the process unit is subject to the requirements of paragraph (d) of this section, except as provided in paragraphs (d)(4)(ii) and (d)(4)(iii) of this section.

(i) Demonstration of progress shall mean that for each quarter there is at least a 10-percent reduction in the percent leaking valves from the percent leaking valves determined for the preceding monitoring period. The percent leaking valves shall be calculated as a rolling average of two consecutive quarters of monitoring data. The percent reduction shall be calculated using the rolling average percent leaking valves, according to the following:

$\%LV_R = (\%LV_{AVG1} - \%LV_{AVG2} / \%LV_{AVG1} \times 100$

where:

$\%LV_R$=Percent leaking valve reduction.

$\%LV_{AVG1}$=($\%V_{Li}$+ %VLi=1)/2.

$\%LV_{AVG2}$=(%VLi=1+ %VLi=2)/2.

where:

$\%V_{Li}$, %VLi=1, %VLi=2are percent leaking valves calculated for subsequent monitoring periods, i, i+1, i+2.

(ii) An owner or operator who fails for two consecutive rolling averages to demonstrate at least a 10-percent reduction per quarter in percent leaking valves, and whose overall average percent reduction based on two or more rolling averages is less than 10 percent per quarter, shall either comply with the requirements in §63.168(d)(1)(i) of this subpart using monthly monitoring or shall comply using a quality improvement program for technology review as specified in paragraph (e) of this section. If the owner or operator elects to comply with the requirements of paragraph (e) of this section, the schedule for performance trials and valve replacements remains as specified in paragraph (e) of this section.

(iii) As an alternative to the provisions in paragraph (d)(4)(i), an owner or operator may use the procedure specified in paragraphs (d)(4)(iii)(A) and (d)(4)(iii)(B) of this section to demonstrate progress in reducing the percent leaking valves.

(A) The percent reduction that must be achieved each quarter shall be calculated as follows:

$$\%RR = \frac{\%V_L - 2\%}{0.10}$$

%RR = percent reduction required each quarter, as calculated according to §63.168(e)

$\%V_L$= percent leaking valves, calculated according to §63.168(e), at the time elected to use provisions of §63.168(d)(1)(ii)

(B) The owner or operator shall achieve less than 2 percent leaking valves no later than 2 years after electing to use the demonstration of progress provisions in §63.175(d) of this subpart.

(e) The following requirements shall be met if an owner or operator elects to use a quality improvement program of technology review and improvement:

(1) The owner or operator shall comply with the requirements in §63.168 of this subpart except the requirement for monthly monitoring in §63.168(d)(1)(i) of this subpart does not apply.

(2) The owner or operator shall collect the data specified below, and maintain records as required in §63.181(h)(2), for each valve in each process unit subject to the quality improvement program. The data may be collected and the records may be maintained on a process unit or group of process units basis. The data shall include the following:

(i) Valve type (e.g., ball, gate, check); valve manufacturer; valve design (e.g., external stem or actuating mechanism, flanged body); materials of construction; packing material; and year installed.

(ii) Service characteristics of the stream such as operating pressure, temperature, line diameter, and corrosivity.

(iii) Whether the valve is in gas or light liquid service.

(iv) The maximum instrument readings observed in each monitoring observation before repair, response factor for the stream if adjusted, instrument model number, and date of the observation.

(v) If a leak is detected, the repair methods used and the instrument readings after repair.

(vi) If the data will be analyzed as part of a larger analysis program involving data from other plants or other types of process units, a description of any maintenance or quality assurance programs used in the process unit that are intended to improve emission performance.

(3) The owner or operator shall continue to collect data on the valves as long as the process unit remains in the quality improvement program.

(4) The owner or operator shall inspect all valves removed from the process unit due to leaks. The inspection shall determine which parts of the valve have failed and shall include recommendations, as appropriate, for design changes or changes in specifications to reduce leak potential.

(5)(i) The owner or operator shall analyze the data collected to comply with the requirements of paragraph (e)(2) of this section to determine the services, operating or maintenance practices, and valve designs or technologies that have poorer than average emission performance and those that have better than average emission performance. The analysis shall determine if specific trouble areas can be identified on the basis of service, operating conditions or maintenance practices, equipment design, or other process specific factors.

(ii) The analysis shall also be used to identify any superior performing valve technologies that are applicable to the service(s), operating conditions, or valve designs associated with poorer than average emission performance. A superior performing valve technology is one for which a group of such valves has a leak frequency of less than 2 percent for specific applications in such a process unit. A candidate superior performing valve technology is one demonstrated or reported in the available literature or through a group study as having low emission performance and as being capable of achieving less than 2 percent leaking valves in the process unit.

(iii) The analysis shall include consideration of:

(A) The data obtained from the inspections of valves removed from the process unit due to leaks,

(B) Information from the available literature and from the experience of other plant sites that will identify valve designs or technologies and operating conditions associated with low emission performance for specific services, and

(C) Information on limitations on the service conditions for the valve design and operating conditions as well as information on maintenance procedures to ensure continued low emission performance.

(iv) The data analysis may be conducted through an inter- or intra-company program (or through some combination of the two approaches) and may be for a single process unit, a company, or a group of process units.

(v) The first analysis of the data shall be completed no later than 18 months after the start of Phase III. The first analysis shall be performed using a minimum of two quarters of data. An analysis of the data shall be done each year the process unit is in the quality improvement program.

(6) A trial evaluation program shall be conducted at each plant site for which the data analysis does not identify superior performing valve designs or technologies that can be applied to the operating conditions and services identified as having poorer than average performance, except as provided in paragraph (e)(6)(v) of this section. The trial program shall be used to evaluate the feasibility of using in the process unit the valve designs or technologies that have been identified by others as having low emission performance.

(i) The trial program shall include on-line trials of valves or operating and maintenance practices that have been identified in the available literature or in analysis by others as having the ability to perform with leak rates below 2 percent in similar services, as having low probability of failure, or as having no external actuating mechanism in contact with the process fluid. If any of the candidate superior performing valve technologies is not included in the performance trials, the reasons for rejecting specific technologies from consideration shall be documented as required in §63.181(h)(5)(ii) of this subpart.

(ii) The number of valves in the trial evaluation program shall be the lesser of 1 percent or 20 valves for programs involving single process units and the lesser of 1 percent or 50 valves for programs involving groups of process units.

(iii) The trial evaluation program shall specify and include documentation of:

(A) The candidate superior performing valve designs or technologies to be evaluated, the stages for evaluating the identified candidate valve designs or technologies, including the estimated time period necessary to test the applicability;

(B) The frequency of monitoring or inspection of the equipment;

(C) The range of operating conditions over which the component will be evaluated; and

(D) Conclusions regarding the emission performance and the appropriate operating conditions and services for the trial valves.

(iv) The performance trials shall initially be conducted for, at least, a 6-month period beginning not later than 18 months after the start of Phase III. Not later than 24 months after the start of Phase III, the owner or operator shall have identified valve designs or technologies that, combined with appropriate process, operating, and maintenance practices, operate with low emission performance for specific applications in the process unit. The owner or operator shall continue to conduct performance trials as long as no

superior performing design or technology has been identified, except as provided in paragraph (e)(6)(vi) of this section. The compilation of candidate and demonstrated superior emission performance valve designs or technologies shall be amended in the future, as appropriate, as additional information and experience is obtained.

(v) Any plant site with fewer than 400 valves and owned by a corporation with fewer than 100 total employees shall be exempt from trial evaluations of valves. Plant sites exempt from the trial evaluations of valves shall begin the program at the start of the fourth year of Phase III.

(vi) An owner or operator who has conducted performance trials on all candidate superior emission performance technologies suitable for the required applications in the process unit may stop conducting performance trials provided that a superior performing design or technology has been demonstrated or there are no technically feasible candidate superior technologies remaining. The owner or operator shall prepare an engineering evaluation documenting the physical, chemical, or engineering basis for the judgment that the superior emission performance technology is technically infeasible or demonstrating that it would not reduce emissions.

(7) Each owner or operator who elects to use a quality improvement program for technology review and improvement shall prepare and implement a valve quality assurance program that details purchasing specifications and maintenance procedures for all valves in the process unit. The quality assurance program may establish any number of categories, or classes, of valves as needed to distinguish among operating conditions and services associated with poorer than average emission performance as well as those associated with better than average emission performance. The quality assurance program shall be developed considering the findings of the data analysis required under paragraph (e)(5) of this section, if applicable, the findings of the trial evaluation required in paragraph (e)(6) of this section, and the operating conditions in the process unit. The quality assurance program shall be reviewed and, as appropriate, updated each year as long as the process unit has 2 percent or more leaking valves.

(i) The quality assurance program shall:

(A) Establish minimum design standards for each category of valves. The design standards shall specify known critical parameters such as tolerance, manufacturer, materials of construction, previous usage, or other applicable identified critical parameters;

(B) Require that all equipment orders specify the design standard (or minimum tolerances) for the valve;

(C) Include a written procedure for bench testing of valves that specifies performance criteria for acceptance of valves and specifies criteria for the precision and accuracy of the test apparatus. All valves repaired off-line after preparation of the quality assurance plan shall be bench-tested for leaks. This testing may be conducted by the owner or operator of the process unit, by the vendor, or by a designated representative. The owner or operator shall install only those valves that have been documented through bench-testing to be nonleaking.

(D) Require that all valves repaired on-line be monitored using the method specified in §63.180(b) of this subpart for leaks for 2 successive months, after repair.

(E) Provide for an audit procedure for quality control of purchased equipment to ensure conformance with purchase specifications. The audit program may be conducted by the owner or operator of the process unit or by a designated representative.

(F) Detail off-line valve maintenance and repair procedures. These procedures shall include provisions to ensure that rebuilt or refurbished valves will meet the design specifications for the valve type and will operate such that emissions are minimized.

(ii) The quality assurance program shall be established no later than the start of the third year of Phase III for plant sites with 400 or more valves or owned by a corporation with 100 or more employees; and no later than the start of the fourth year of Phase III for plant sites with less than 400 valves and owned by a corporation with less than 100 employees.

(8) Beginning at the start of the third year of Phase III for plant sites with 400 or more valves or owned by a corporation with 100 or more employees and at the start of the fourth year of Phase III for plant sites with less than 400 valves and owned by a corporation with less than 100 employees, each valve that is replaced for any reason shall be replaced with a new or modified valve that complies with the quality assurance standards for the valve category and that is identified as superior emission performance technology. Superior emission performance technology means valves or valve technologies identified with emission performance that, combined with appropriate process, operating, and maintenance practices, will result in less than 2 percent leaking valves for specific applications in a large population, except as provided in paragraph (e)(8)(ii) of this section.

(i) The valves shall be maintained as specified in the quality assurance program.

(ii) If a superior emission performance technology cannot be identified, then valve replacement shall be with one of (if several) the lowest emission performance technologies that has been identified for the specific application.

[59 FR 19568, Apr. 22, 1994, as amended at 60 FR 63631, Dec. 12, 1995]

§ 63.176 Quality improvement program for pumps.

(a) In Phase III, if, on a 6-month rolling average, the greater of either 10 percent of the pumps in a process unit (or plant site) or three pumps in a process unit (or plant site) leak, the owner or operator shall comply with the requirements of this section as specified below:

(1) Pumps that are in food/medical service or in polymerizing monomer service shall comply with all requirements except for those specified in paragraph (d)(8) of this section.

(2) Pumps that are not in food/medical or polymerizing monomer service shall comply with all requirements of this section.

(b) The owner or operator shall comply with the requirements of this section until the number of leaking pumps is less than the greater of either 10 percent of the pumps or three pumps, calculated as a 6-month rolling average, in the process unit (or plant site). Once the performance level is achieved, the owner or operator shall comply with the requirements in §63.163 of this subpart.

(c) If in a subsequent monitoring period, the process unit (or plant site) has greater than 10 percent of the pumps leaking or three pumps leaking (calculated as a 6-month rolling average), the owner or operator shall resume the quality improvement program starting at performance trials.

(d) The quality improvement program shall include the following:

(1) The owner or operator shall comply with the requirements in §63.163 of this subpart.

(2) The owner or operator shall collect the following data, and maintain records as required in §63.181(h)(3), for each pump in each process unit (or plant site) subject to the quality improvement program. The data may be collected and the records may be maintained on a process unit or plant site basis.

(i) Pump type (e.g., piston, horizontal or vertical centrifugal, gear, bellows); pump manufacturer; seal type and manufacturer; pump design (e.g., external shaft, flanged body); materials of construction; if applicable, barrier fluid or packing material; and year installed.

(ii) Service characteristics of the stream such as discharge pressure, temperature, flow rate, corrosivity, and annual operating hours.

(iii) The maximum instrument readings observed in each monitoring observation before repair, response factor for the stream if appropriate, instrument model number, and date of the observation.

(iv) If a leak is detected, the repair methods used and the instrument readings after repair.

(v) If the data will be analyzed as part of a larger analysis program involving data from other plants or other types of process units, a description of any maintenance or quality assurance programs used in the process unit that are intended to improve emission performance.

(3) The owner or operator shall continue to collect data on the pumps as long as the process unit (or plant site) remains in the quality improvement program.

(4) The owner or operator shall inspect all pumps or pump seals which exhibited frequent seal failures and were removed from the process unit due to leaks. The inspection shall determine the probable cause of the pump seal failure or of the pump leak and shall include recommendations, as appropriate, for design changes or changes in specifications to reduce leak potential.

(5)(i) The owner or operator shall analyze the data collected to comply with the requirements of paragraph (d)(2) of this section to determine the services, operating or maintenance practices, and pump or pump seal designs or technologies that have poorer than average emission performance and those that have better than average emission performance. The analysis shall determine if specific trouble areas can be identified on the basis of service, operating conditions or maintenance practices, equipment design, or other process specific factors.

(ii) The analysis shall also be used to determine if there are superior performing pump or pump seal technologies that are applicable to the service(s), operating conditions, or pump or pump seal designs associated with poorer than average emission performance. A superior performing pump or pump seal technology is one with a leak frequency of less than 10 percent for specific applications in the process unit or plant site. A candidate superior performing pump or pump seal technology is one demonstrated or reported in the available literature or through a group study as having low emission performance and as being capable of achieving less than 10 percent leaking pumps in the process unit (or plant site).

(iii) The analysis shall include consideration of:

(A) The data obtained from the inspections of pumps and pump seals removed from the process unit due to leaks;

(B) Information from the available literature and from the experience of other plant sites that will identify pump designs or technologies and operating conditions associated with low emission performance for specific services; and

(C) Information on limitations on the service conditions for the pump seal technology operating conditions as well as information on maintenance procedures to ensure continued low emission performance.

(iv) The data analysis may be conducted through an inter- or intra-company program (or through some combination of the two approaches) and may be for a single process unit, a plant site, a company, or a group of process units.

(v) The first analysis of the data shall be completed no later than 18 months after the start of the quality improvement program. The first analysis shall be performed using a minimum of 6 months of data. An analysis of the data shall be done each year the process unit is in the quality improvement program.

(6) A trial evaluation program shall be conducted at each plant site for which the data analysis does not identify use of superior performing pump seal technology or pumps that can be applied to the areas identified as having poorer than average performance, except as provided in paragraph (d)(6)(v) of this section. The trial program shall be used to evaluate the feasibility of using in the process unit (or plant site) the pump designs or seal technologies, and operating and maintenance practices that have been identified by others as having low emission performance.

(i) The trial program shall include on-line trials of pump seal technologies or pump designs and operating and maintenance practices that have been identified in the available literature or in analysis by others as having the ability to perform with leak rates below 10 percent in similar services, as having low probability of failure, or as having no external actuating mechanism in contact with the process fluid. If any of the candidate superior performing pump seal technologies or pumps is not included in the performance trials, the reasons for rejecting specific technologies from consideration shall be documented as required in §63.181(h)(5)(ii).

(ii) The number of pump seal technologies or pumps in the trial evaluation program shall be the lesser of 1 percent or two pumps for programs involving single process units and the lesser of 1 percent or five pumps for programs involving a plant site or groups of process units. The minimum number of pumps or pump seal technologies in a trial program shall be one.

(iii) The trial evaluation program shall specify and include documentation of:

(A) The candidate superior performing pump seal designs or technologies to be evaluated, the stages for evaluating the identified candidate pump designs or pump seal technologies, including the time period necessary to test the applicability;

(B) The frequency of monitoring or inspection of the equipment;

(C) The range of operating conditions over which the component will be evaluated; and

(D) Conclusions regarding the emission performance and the appropriate operating conditions and services for the trial pump seal technologies or pumps.

(iv) The performance trials shall initially be conducted, at least, for a 6-month period beginning not later than 18 months after the start of the quality improvement program. No later than 24 months after the start of the quality improvement program, the owner or operator shall have identified pump seal technologies or pump designs that, combined with appropriate process, operating, and maintenance practices, operate with low emission performance for specific applications in the process unit. The owner or operator shall continue to conduct performance trials as long as no superior performing design or technology has been identified, except as provided in paragraph (d)(6)(vi) of this section. The initial list of superior emission performance pump designs or pump seal technologies shall be amended in the future, as appropriate, as additional information and experience is obtained.

(v) Any plant site with fewer than 400 valves and owned by a corporation with fewer than 100 employees shall be exempt from trial evaluations of pump seals or pump designs. Plant sites exempt from the trial evaluations of pumps shall begin the pump seal or pump replacement program at the start of the fourth year of the quality improvement program.

(vi) An owner or operator who has conducted performance trials on all alternative superior emission performance technologies suitable for the required applications in the process unit may stop conducting performance trials provided that a superior performing design or technology has been demonstrated or there are no technically feasible alternative superior technologies remaining. The owner or operator shall prepare an engineering evaluation documenting the physical, chemical, or engineering basis for the judgment that the superior emission performance technology is technically infeasible or demonstrating that it would not reduce emissions.

(7) Each owner or operator shall prepare and implement a pump quality assurance program that details purchasing specifications and maintenance procedures for all pumps and pump seals in the process unit. The quality assurance program may establish any number of categories, or classes, of pumps as needed to distinguish among operating conditions and services associated with poorer than average emission performance as well as those associated with better than average emission performance. The quality assurance program shall be developed considering the findings of the data analysis required under paragraph (d)(5) of this section, if applicable, the findings of the trial evaluation required in paragraph (d)(6) of this section, and the operating conditions in the process unit. The quality assurance program shall be updated each year as long as the process unit has the greater of either 10 percent or more leaking pumps or has three leaking pumps.

(i) The quality assurance program shall:

(A) Establish minimum design standards for each category of pumps or pump seal technology. The design standards shall specify known critical parameters such as tolerance, manufacturer, materials of construction, previous usage, or other applicable identified critical parameters;

(B) Require that all equipment orders specify the design standard (or minimum tolerances) for the pump or the pump seal;

(C) Provide for an audit procedure for quality control of purchased equipment to ensure conformance with purchase specifications. The audit program may be conducted by the owner or operator of the plant site or process unit or by a designated representative; and

(D) Detail off-line pump maintenance and repair procedures. These procedures shall include provisions to ensure that rebuilt or refurbished pumps and pump seals will meet the design specifications for the pump category and will operate such that emissions are minimized.

(ii) The quality assurance program shall be established no later than the start of the third year of the quality improvement program for plant sites with 400 or more valves or 100 or more employees; and no later than the start of the fourth year of the quality improvement program for plant sites with less than 400 valves and less than 100 employees.

(8) Beginning at the start of the third year of the quality improvement program for plant sites with 400 or more valves or 100 or more employees and at the start of the fourth year of the quality improvement program for plant sites with less than 400 valves and less than 100 employees, the owner or operator shall replace, as described in paragraphs (d)(8)(i) and (d)(8)(ii) of this section, the pumps or pump seals that are not superior emission performance technology with pumps or pump seals that have been identified as superior emission performance technology and that comply with the quality assurance standards for the pump category. Superior emission performance technology is that category or design of pumps or pump seals with emission performance which, when combined with appropriate process, operating, and maintenance practices, will result in less than 10 percent leaking pumps for specific applications in the process unit or plant site. Superior emission performance technology includes material or design changes to the existing pump, pump seal, seal support system, installation of multiple mechanical seals or equivalent, or pump replacement.

(i) Pumps or pump seals shall be replaced at the rate of 20 percent per year based on the total number of pumps in light liquid service. The calculated value shall be rounded to the nearest nonzero integer value. The minimum number of pumps or pump seals shall be one. Pump replacement shall continue until all pumps subject to the requirements of §63.163 of this subpart are pumps determined to be superior performance technology.

(ii) The owner or operator may delay replacement of pump seals or pumps with superior technology until the next planned process unit shutdown, provided the number of pump seals and pumps replaced is equivalent to the 20 percent or greater annual replacement rate.

(iii) The pumps shall be maintained as specified in the quality assurance program.

§ 63.177 Alternative means of emission limitation: General.

(a) Permission to use an alternative means of emission limitation under section 112(h)(3) of the Act shall be governed by the following procedures in paragraphs (b) through (e) of this section.

(b) Where the standard is an equipment, design, or operational requirement:

(1) Each owner or operator applying for permission to use an alternative means of emission limitation under §63.6(g) of subpart A of this part shall be responsible for collecting and verifying emission performance test data for an alternative means of emission limitation.

(2) The Administrator will compare test data for the means of emission limitation to test data for the equipment, design, and operational requirements.

(3) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve the same emission reduction as the equipment, design, and operational requirements.

(c) Where the standard is a work practice:

(1) Each owner or operator applying for permission shall be responsible for collecting and verifying test data for an alternative means of emission limitation.

(2) For each kind of equipment for which permission is requested, the emission reduction achieved by the required work practices shall be demonstrated for a minimum period of 12 months.

(3) For each kind of equipment for which permission is requested, the emission reduction achieved by the alternative means of emission limitation shall be demonstrated.

(4) Each owner or operator applying for permission shall commit, in writing, for each kind of equipment to work practices that provide for emission reductions equal to or greater than the emission reductions achieved by the required work practices.

(5) The Administrator will compare the demonstrated emission reduction for the alternative means of emission limitation to the demonstrated emission reduction for the required work practices and will consider the commitment in paragraph (c)(4) of this section.

(6) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve the same or greater emission reduction as the required work practices of this subpart.

(d) An owner or operator may offer a unique approach to demonstrate the alternative means of emission limitation.

(e)(1) Manufacturers of equipment used to control equipment leaks of an organic HAP may apply to the Administrator for permission for an alternative means of emission limitation that achieves a reduction in emissions of the organic HAP achieved by the equipment, design, and operational requirements of this subpart.

(2) The Administrator will grant permission according to the provisions of paragraphs (b), (c), and (d) of this section.

§ 63.178 Alternative means of emission limitation: Batch processes.

(a) As an alternative to complying with the requirements of §§63.163 through 63.171 and §§63.173 through 63.176, an owner or operator of a batch process that operates in organic HAP service during the calendar year may comply with one of the standards specified in paragraphs (b) and (c) of this section, or the owner or operator may petition for approval of an alternative standard under the provisions of §63.177 of this subpart. The alternative standards of this section provide the options of pressure testing or monitoring the equipment for leaks. The owner or operator may switch among the alternatives provided the change is documented as specified in §63.181.

(b) The following requirements shall be met if an owner or operator elects to use pressure testing of batch product-process equipment to demonstrate compliance with this subpart. An owner or operator who complies with the provisions of this paragraph is exempt from the monitoring provisions of §63.163, §§63.168 and 63.169, and §§63.173 through 63.176 of this subpart.

(1) Each time equipment is reconfigured for production of a different product or intermediate, the batch product-process equipment train shall be pressure-tested for leaks before organic HAP is first fed to the equipment and the equipment is placed in organic HAP service.

(i) When the batch product-process train is reconfigured to produce a different product, pressure testing is required only for the new or disturbed equipment.

(ii) Each batch product process that operates in organic HAP service during a calendar year shall be pressure tested at least once during that calendar year.

(iii) Pressure testing is not required for routine seal breaks, such as changing hoses or filters, which are not part of the reconfiguration to produce a different product or intermediate.

(2) The batch product process equipment shall be tested either using the procedures specified in §63.180(f) of this subpart for pressure or vacuum loss or with a liquid using the procedures specified in §63.180(g) of this subpart.

(3)(i) For pressure or vacuum tests, a leak is detected if the rate of change in pressure is greater than 6.9 kilopascals (1 psig) in 1 hour or if there is visible, audible, or olfactory evidence of fluid loss.

(ii) For pressure tests using a liquid, a leak is detected if there are indications of liquids dripping or if there is other evidence of fluid loss.

(4)(i) If a leak is detected, it shall be repaired and the batch product-process equipment shall be retested before start-up of the process.

(ii) If a batch product-process fails the retest or the second of two consecutive pressure tests, it shall be repaired as soon as practicable, but not later than 30 calendar days after the second pressure test, provided the conditions specified in paragraph (d) of this section are met.

(c) The following requirements shall be met if an owner or operator elects to monitor the equipment to detect leaks by the method specified in §63.180(b) of this subpart to demonstrate compliance with this subpart.

(1) The owner or operator shall comply with the requirements of §§63.163 through 63.170, and §§63.172 through 63.176 of this subpart.

(2) The equipment shall be monitored for leaks by the method specified in §63.180(b) of this subpart when the equipment is in organic HAP service, in use with an acceptable surrogate volatile organic compound which is not an organic HAP, or is in use with any other detectable gas or vapor.

(3) The equipment shall be monitored for leaks as specified below:

(i) Each time the equipment is reconfigured for the production of a new product, the reconfigured equipment shall be monitored for leaks within 30 days of start-up of the process. This initial monitoring of reconfigured equipment shall not be included in determining percent leaking equipment in the process unit.

(ii) Connectors shall be monitored in accordance with the requirements in §63.174 of this subpart.

(iii) Equipment other than connectors shall be monitored at the frequencies specified in table 1 of this subpart. The operating time shall be determined as the proportion of the year the batch product-process that is subject to the provisions of this subpart is operating.

(iv) The monitoring frequencies specified in table 1 of this subpart are not requirements for monitoring at specific intervals and can be adjusted to accommodate process operations. An owner or operator may monitor anytime during the specified monitoring period (e.g., month, quarter, year), provided the monitoring is conducted at a reasonable interval after completion of the last monitoring campaign. For example, if the equipment is not operating during the scheduled monitoring period, the monitoring can be done during the next period when the process is operating.

(4) If a leak is detected, it shall be repaired as soon as practicable but not later than 15 calendar days after it is detected, except as provided in paragraph (d) of this section.

(d) Delay of repair of equipment for which leaks have been detected is allowed if the replacement equipment is not available providing the following conditions are met:

(1) Equipment supplies have been depleted and supplies had been sufficiently stocked before the supplies were depleted.

(2) The repair is made no later than 10 calendar days after delivery of the replacement equipment.

§ 63.179 Alternative means of emission limitation: Enclosed-vented process units.

Process units enclosed in such a manner that all emissions from equipment leaks are vented through a closed-vent system to a control device meeting the requirements of §63.172 of this subpart are exempt from the requirements of §63.163, through 63.171, and §§63.173 and 63.174 of this subpart. The enclosure shall be maintained under a negative pressure at all times while the process unit is in operation to ensure that all emissions are routed to a control device.

§ 63.180 Test methods and procedures.

(a) Each owner or operator subject to the provisions of this subpart shall comply with the test methods and procedures requirements provided in this section.

(b) Monitoring, as required under this subpart, shall comply with the following requirements:

(1) Monitoring shall comply with Method 21 of 40 CFR part 60, appendix A.

(2)(i) Except as provided for in paragraph (b)(2)(ii) of this section, the detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in Section 3.1.2(a) of Method 21 shall be for the average composition of the process fluid not each individual VOC in the stream. For process streams that contain nitrogen, water, air, or other inerts which are not organic HAP's or VOC's, the average stream response factor may be calculated on an inert-free basis. The response factor may be determined at any concentration for which monitoring for leaks will be conducted.

(ii) If no instrument is available at the plant site that will meet the performance criteria specified in paragraph (b)(2)(i) of this section, the instrument readings may be adjusted by multiplying by the average response factor of the process fluid, calculated on an inert-free basis as described in paragraph (b)(2)(i) of this section.

(3) The instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.

(4) Calibration gases shall be:

(i) Zero air (less than 10 parts per million of hydrocarbon in air); and

(ii) Mixtures of methane in air at the concentrations specified in paragraphs (b)(4)(ii)(A) through (b)(4)(ii)(C) of this section. A calibration gas other than methane in air may be used if the instrument does not respond to methane or if the instrument does not meet the performance criteria specified in paragraph (b)(2)(i) of this section. In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air.

(A) For Phase I, a mixture of methane or other compounds, as applicable, in air at a concentration of approximately, but less than, 10,000 parts per million.

(B) For Phase II, a mixture of methane or other compounds, as applicable, and air at a concentration of approximately, but less than, 10,000 parts per million for agitators, 5,000 parts per million for pumps, and 500 parts per million for all other equipment, except as provided in paragraph (b)(4)(iii) of this section.

(C) For Phase III, a mixture of methane or other compounds, as applicable, and air at a concentration of approximately, but less than, 10,000 parts per million methane for agitators; 2,000 parts per million for pumps in food/medical service; 5,000 parts per million for pumps in polymerizing monomer service; 1,000 parts per million for all other pumps; and 500 parts per million for all other equipment, except as provided in paragraph (b)(4)(iii) of this section.

(iii) The instrument may be calibrated at a higher methane concentration than the concentration specified for that piece of equipment. The concentration of the calibration gas may exceed the concentration specified as a leak by no more than 2,000 parts per million. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 parts per million above the concentration specified as a leak and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 parts per million. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring.

(5) Monitoring shall be performed when the equipment is in organic HAP service, in use with an acceptable surrogate volatile organic compound which is not an organic HAP, or is in use with any other detectable gas or vapor.

(6) Monitoring data that do not meet the criteria specified in paragraphs (b)(1) through (b)(5) of this section may be used to qualify for less frequent monitoring under the provisions in §63.168(d)(2) and (d)(3) or §63.174(b)(3)(ii) or (b)(3)(iii) of this subpart provided the data meet the conditions specified in paragraphs (b)(6)(i) and (b)(6)(ii) of this section.

(i) The data were obtained before April 22, 1994.

(ii) The departures from the criteria specified in paragraphs (b)(1) through (b)(5) of this section or from the specified monitoring frequency of §63.168(c) are minor and do not significantly affect the quality of the data. Examples of minor departures are monitoring at a slightly different frequency (such as every six weeks instead of monthly or quarterly), following the performance criteria of section 3.1.2(a) of Method 21 of appendix A of 40 CFR part 60 instead of paragraph (b)(2) of this section, or monitoring at a different leak definition if the data would indicate the presence or absence of a leak at the concentration specified in this subpart. Failure to use a calibrated instrument is not considered a minor departure.

(c) When equipment is monitored for compliance as required in §§63.164(i), 63.165(a), and 63.172(f) or when equipment subject to a leak definition of 500 ppm is monitored for leaks as required by this subpart, the owner or operator may elect to adjust or not to adjust the instrument readings for background. If an owner or operator elects to not adjust instrument readings for background, the owner or operator shall monitor the equipment according to the procedures specified in paragraphs (b)(1) through (b)(4) of this section. In such case, all instrument readings shall be compared directly to the applicable leak definition to determine whether there is a leak. If an owner or operator elects to adjust instrument readings for background, the owner or operator shall monitor the equipment according to the procedures specified in paragraphs (c)(1) through (c)(4) of this section.

(1) The requirements of paragraphs (b) (1) through (4) of this section shall apply.

(2) The background level shall be determined, using the same procedures that will be used to determine whether the equipment is leaking.

(3) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Method 21 of 40 CFR part 60, appendix A.

(4) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 parts per million for determining compliance.

(d)(1) Each piece of equipment within a process unit that can reasonably be expected to contain equipment in organic HAP service is presumed to be in organic HAP service unless an owner or operator demonstrates that the piece of equipment is not in organic HAP service. For a piece of equipment to be considered not in organic HAP service, it must be determined that the percent organic HAP content can be reasonably expected not to exceed 5 percent by weight on an annual average basis. For purposes of determining the percent organic HAP content of the process fluid that is contained in or contacts equipment, Method 18 of 40 CFR part 60, appendix A shall be used.

(2)(i) An owner or operator may use good engineering judgment rather than the procedures in paragraph (d)(1) of this section to determine that the percent organic HAP content does not exceed 5 percent by weight. When an owner or operator and the Administrator do not agree on whether a piece of equipment is not in organic HAP service, however, the procedures in paragraph (d)(1) of this section shall be used to resolve the disagreement.

(ii) Conversely, the owner or operator may determine that the organic HAP content of the process fluid does not exceed 5 percent by weight by, for example, accounting for 98 percent of the content and showing that organic HAP is less than 3 percent.

(3) If an owner or operator determines that a piece of equipment is in organic HAP service, the determination can be revised after following the procedures in paragraph (d)(1) of this section, or by documenting that a change in the process or raw materials no longer causes the equipment to be in organic HAP service.

(4) Samples used in determining the percent organic HAP content shall be representative of the process fluid that is contained in or contacts the equipment.

(e) When a flare is used to comply with §63.172(d), the owner or operator shall comply with paragraphs (e)(1) through (3) of this section. The owner or operator is not required to conduct a performance test to determine percent emission reduction or outlet organic HAP or TOC concentration.

(1) Conduct a visible emission test using the techniques specified in §63.11(b)(4).

(2) Determine the net heating value of the gas being combusted using the techniques specified in §63.11(b)(6).

(3) Determine the exit velocity using the techniques specified in either §63.11(b)(7)(i) (and §63.11(b)(7)(iii), where applicable) or §63.11(b)(8), as appropriate.

(f) The following procedures shall be used to pressure test batch product-process equipment for pressure or vacuum loss to demonstrate compliance with the requirements of §63.178(b)(3)(i) of this subpart.

(1) The batch product-process equipment train shall be pressurized with a gas to a pressure less than the set pressure of any safety relief devices or valves or to a pressure slightly above the operating pressure of the equipment, or alternatively, the equipment shall be placed under a vacuum.

(2) Once the test pressure is obtained, the gas source or vacuum source shall be shut off.

(3) The test shall continue for not less than 15 minutes unless it can be determined in a shorter period of time that the allowable rate of pressure drop or of pressure rise was exceeded. The pressure in the batch product-process equipment shall be measured after the gas or vacuum source is shut off and at the end of the test period. The rate of change in pressure in the batch product-process equipment shall be calculated using the following equation:

$$\Delta \frac{P}{t} = \frac{\left(\left|P_f - P_i\right|\right)}{\left(t_f - t_i\right)}$$

where:

$\Delta P/t$=Change in pressure, psig/hr.

P_f=Final pressure, psig.

P_i=Initial pressure, psig.

$t_f - t_i$=Elapsed time, hours.

(4) The pressure shall be measured using a pressure measurement device (gauge, manometer, or equivalent) which has a precision of ±2.5 millimeter mercury in the range of test pressure and is capable of measuring pressures up to the relief set pressure of the pressure relief device. If such a pressure measurement device is not reasonably available, the owner or operator shall use a pressure measurement device with a precision of at least +10 percent of the test pressure of the equipment and shall extend the duration of the test for the time necessary to detect a pressure loss or rise that equals a rate of one psig per hour.

(5) An alternative procedure may be used for leak testing the equipment if the owner or operator demonstrates the alternative procedure is capable of detecting a pressure loss or rise.

(g) The following procedures shall be used to pressure-test batch product-process equipment using a liquid to demonstrate compliance with the requirements of §63.178(b)(3)(ii) of this subpart.

(1) The batch product-process equipment train, or section of the train, shall be filled with the test liquid (e.g., water, alcohol) until normal operating pressure is obtained. Once the equipment is filled, the liquid source shall be shut off.

(2) The test shall be conducted for a period of at least 60 minutes, unless it can be determined in a shorter period of time that the test is a failure.

(3) Each seal in the equipment being tested shall be inspected for indications of liquid dripping or other indications of fluid loss. If there are any indications of liquids dripping or of fluid loss, a leak is detected.

(4) An alternative procedure may be used for leak testing the equipment, if the owner or operator demonstrates the alternative procedure is capable of detecting losses of fluid.

[59 FR 19568, Apr. 22, 1994, as amended at 59 FR 48177, Sept. 20, 1994; 61 FR 31440, June 20, 1996; 62 FR 2792, Jan. 17, 1997; 66 FR 6936, Jan. 22, 2001]

§ 63.181 Recordkeeping requirements.

(a) An owner or operator of more than one process unit subject to the provisions of this subpart may comply with the recordkeeping requirements for these process units in one recordkeeping system if the system identifies each record by process unit and the program being implemented (e.g., quarterly monitoring, quality improvement) for each type of equipment. All records and information required by this section shall be maintained in a manner that can be readily accessed at the plant site. This could include physically locating the records at the plant site or accessing the records from a central location by computer at the plant site.

(b) Except as provided in paragraph (e) of this section, the following information pertaining to all equipment in each process unit subject to the requirements in §§63.162 through 63.174 of this subpart shall be recorded:

(1)(i) A list of identification numbers for equipment (except connectors exempt from monitoring and recordkeeping identified in §63.174 of this subpart and instrumentation systems) subject to the requirements of this subpart. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated. With respect to connectors, the list shall be complete no later than the completion of the initial survey required by §63.174 (b)(1) or (b)(2) of this subpart.

(ii) A schedule by process unit for monitoring connectors subject to the provisions of §63.174(a) of this subpart and valves subject to the provisions of §63.168(d) of this subpart.

(iii) Physical tagging of the equipment to indicate that it is in organic HAP service is not required. Equipment subject to the provisions of this subpart may be identified on a plant site plan, in log entries, or by other appropriate methods.

(2)(i) A list of identification numbers for equipment that the owner or operator elects to equip with a closed-vent system and control device, under the provisions of §63.163(g), §63.164(h), §63.165(c), or §63.173(f) of this subpart.

(ii) A list of identification numbers for compressors that the owner or operator elects to designate as operating with an instrument reading of less than 500 parts per million above background, under the provisions of §63.164(i) of this subpart.

(iii) Identification of surge control vessels or bottoms receivers subject to the provisions of this subpart that the owner or operator elects to equip with a closed-vent system and control device, under the provisions of §63.170 of this subpart.

(3)(i) A list of identification numbers for pressure relief devices subject to the provisions in §63.165(a) of this subpart.

(ii) A list of identification numbers for pressure relief devices equipped with rupture disks, under the provisions of §63.165(d) of this subpart.

(4) Identification of instrumentation systems subject to the provisions of this subpart. Individual components in an instrumentation system need not be identified.

(5) Identification of screwed connectors subject to the requirements of §63.174(c)(2) of this subpart. Identification can be by area or grouping as long as the total number within each group or area is recorded.

(6) The following information shall be recorded for each dual mechanical seal system:

(i) Design criteria required in §§63.163(e)(6)(i), 63.164(e)(2), and 63.173(d)(6)(i) of this subpart and an explanation of the design criteria; and

(ii) Any changes to these criteria and the reasons for the changes.

(7) The following information pertaining to all pumps subject to the provisions of §63.163(j), valves subject to the provisions of §63.168(h) and (i) of this subpart, agitators subject to the provisions of §63.173(h) through (j), and connectors subject to the provisions of §63.174(f) and (g) of this subpart shall be recorded:

(i) Identification of equipment designated as unsafe to monitor, difficult to monitor, or unsafe to inspect and the plan for monitoring or inspecting this equipment.

(ii) A list of identification numbers for the equipment that is designated as difficult to monitor, an explanation of why the equipment is difficult to monitor, and the planned schedule for monitoring this equipment.

(iii) A list of identification numbers for connectors that are designated as unsafe to repair and an explanation why the connector is unsafe to repair.

(8)(i) A list of valves removed from and added to the process unit, as described in §63.168(e)(1) of this subpart, if the net credits for removed valves is expected to be used.

(ii) A list of connectors removed from and added to the process unit, as described in §63.174(i)(1) of this subpart, and documentation of the integrity of the weld for any removed connectors, as required in §63.174(j) of this subpart. This is not required unless the net credits for removed connectors is expected to be used.

(9)(i) For batch process units that the owner or operator elects to monitor as provided under §63.178(c) of this subpart, a list of equipment added to batch product process units since the last monitoring period required in §63.178(c)(3)(ii) and (3)(iii) of this subpart.

(ii) Records demonstrating the proportion of the time during the calendar year the equipment is in use in a batch process that is subject to the provisions of this subpart. Examples of suitable documentation are records of time in use for individual pieces of equipment or average time in use for the process unit. These records are not required if the owner or operator does not adjust monitoring frequency by the time in use, as provided in §63.178(c)(3)(iii) of this subpart.

(10) For any leaks detected as specified in §§63.163 and 63.164; §§63.168 and 63.169; and §§63.172 through 63.174 of this subpart, a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.

(c) For visual inspections of equipment subject to the provisions of this subpart (e.g., §63.163(b)(3), §63.163(e)(4)(i)), the owner or operator shall document that the inspection was conducted and the date of the inspection. The owner or operator shall maintain records as specified in paragraph (d) of this section for leaking equipment identified in this inspection, except as provided in paragraph (e) of this section. These records shall be retained for 2 years.

(d) When each leak is detected as specified in §§63.163 and 63.164; §§63.168 and 63.169; and §§63.172 through 63.174 of this subpart, the following information shall be recorded and kept for 2 years:

(1) The instrument and the equipment identification number and the operator name, initials, or identification number.

(2) The date the leak was detected and the date of first attempt to repair the leak.

(3) The date of successful repair of the leak.

(4) Maximum instrument reading measured by Method 21 of 40 CFR part 60, appendix A after it is successfully repaired or determined to be nonrepairable.

(5) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(i) The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. The written procedures may be included as part of the startup/shutdown/malfunction plan, required by §63.6(e)(3), for the source or may be part of a separate document that is maintained at the plant site. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.

(ii) If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion.

(6) Dates of process unit shutdowns that occur while the equipment is unrepaired.

(7)(i) Identification, either by list, location (area or grouping), or tagging of connectors that have been opened or otherwise had the seal broken since the last monitoring period required in §63.174(b) of this subpart, as described in §63.174(c)(1) of this subpart, unless the owner or operator elects to comply with the provisions of §63.174(c)(1)(ii) of this subpart.

(ii) The date and results of monitoring as required in §63.174(c) of this subpart. If identification of connectors that have been opened or otherwise had the seal broken is made by location under paragraph (d)(7)(i) of this section, then all connectors within the designated location shall be monitored.

(8) The date and results of the monitoring required in §63.178(c)(3)(i) of this subpart for equipment added to a batch process unit since the last monitoring period required in §63.178 (c)(3)(ii) and (c)(3)(iii) of this subpart. If no leaking equipment is found in this monitoring, the owner or operator shall record that the inspection was performed. Records of the actual monitoring results are not required.

(9) Copies of the periodic reports as specified in §63.182(d) of this subpart, if records are not maintained on a computerized database capable of generating summary reports from the records.

(e) The owner or operator of a batch product process who elects to pressure test the batch product process equipment train to demonstrate compliance with this subpart is exempt from the requirements of paragraphs (b), (c), (d), and (f) of this section. Instead, the owner or operator shall maintain records of the following information:

(1) The identification of each product, or product code, produced during the calendar year. It is not necessary to identify individual items of equipment in a batch product process equipment train.

(2) [Reserved]

(3) Physical tagging of the equipment to identify that it is in organic HAP service and subject to the provisions of this subpart is not required. Equipment in a batch product process subject to the provisions of this subpart may be identified on a plant site plan, in log entries, or by other appropriate methods.

(4) The dates of each pressure test required in §63.178(b) of this subpart, the test pressure, and the pressure drop observed during the test.

(5) Records of any visible, audible, or olfactory evidence of fluid loss.

(6) When a batch product process equipment train does not pass two consecutive pressure tests, the following information shall be recorded in a log and kept for 2 years:

(i) The date of each pressure test and the date of each leak repair attempt.

(ii) Repair methods applied in each attempt to repair the leak.

(iii) The reason for the delay of repair.

(iv) The expected date for delivery of the replacement equipment and the actual date of delivery of the replacement equipment.

(v) The date of successful repair.

(f) The dates and results of each compliance test required for compressors subject to the provisions in §63.164(i) and the dates and results of the monitoring following a pressure release for each pressure relief device subject to the provisions in §§63.165 (a) and (b) of this subpart. The results shall include:

(1) The background level measured during each compliance test.

(2) The maximum instrument reading measured at each piece of equipment during each compliance test.

(g) The owner or operator shall maintain records of the information specified in paragraphs (g)(1) through (g)(3) of this section for closed-vent systems and control devices subject to the provisions of §63.172 of this subpart. The records specified in paragraph (g)(1) of this section shall be retained for the life of the equipment. The records specified in paragraphs (g)(2) and (g)(3) of this section shall be retained for 2 years.

(1) The design specifications and performance demonstrations specified in paragraphs (g)(1)(i) through (g)(1)(iv) of this section.

(i) Detailed schematics, design specifications of the control device, and piping and instrumentation diagrams.

(ii) The dates and descriptions of any changes in the design specifications.

(iii) The flare design (i.e., steam-assisted, air-assisted, or non-assisted) and the results of the compliance demonstration required by §63.11(b) of subpart A of this part.

(iv) A description of the parameter or parameters monitored, as required in §63.172(e) of this subpart, to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.

(2) Records of operation of closed-vent systems and control devices, as specified in paragraphs (g)(2)(i) through (g)(2)(iii) of this section.

(i) Dates and durations when the closed-vent systems and control devices required in §§63.163 through 63.166, and §63.170 of this subpart are not operated as designed as indicated by the monitored parameters, including periods when a flare pilot light system does not have a flame.

(ii) Dates and durations during which the monitoring system or monitoring device is inoperative.

(iii) Dates and durations of start-ups and shutdowns of control devices required in §§63.163 through 63.166, and §63.170 of this subpart.

(3) Records of inspections of closed-vent systems subject to the provisions of §63.172 of this subpart, as specified in paragraphs (g)(3)(i) and (g)(3)(ii) of this section.

(i) For each inspection conducted in accordance with the provisions of §63.172(f)(1) or (f)(2) of this subpart during which no leaks were detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(ii) For each inspection conducted in accordance with the provisions of §63.172(f)(1) or (f)(2) of this subpart during which leaks were detected, the information specified in paragraph (d) of this section shall be recorded.

(h) Each owner or operator of a process unit subject to the requirements of §§63.175 and 63.176 of this subpart shall maintain the records specified in paragraphs (h)(1) through (h)(9) of this section for the period of the quality improvement program for the process unit.

(1) For owners or operators who elect to use a reasonable further progress quality improvement program, as specified in §63.175(d) of this subpart:

(i) All data required in §63.175(d)(2) of this subpart.

(ii) The percent leaking valves observed each quarter and the rolling average percent reduction observed in each quarter.

(iii) The beginning and ending dates while meeting the requirements of §63.175(d) of this subpart.

(2) For owners or operators who elect to use a quality improvement program of technology review and improvement, as specified in §63.175(e) of this subpart:

(i) All data required in §63.175(e)(2) of this subpart.

(ii) The percent leaking valves observed each quarter.

(iii) Documentation of all inspections conducted under the requirements of §63.175(e)(4) of this subpart, and any recommendations for design or specification changes to reduce leak frequency.

(iv) The beginning and ending dates while meeting the requirements of §63.175(e) of this subpart.

(3) For owners or operators subject to the requirements of the pump quality improvement program as specified in §63.176 of this subpart:

(i) All data required in §63.176(d)(2) of this subpart.

(ii) The rolling average percent leaking pumps.

(iii) Documentation of all inspections conducted under the requirements of §63.176(d)(4) of this subpart, and any recommendations for design or specification changes to reduce leak frequency.

(iv) The beginning and ending dates while meeting the requirements of §63.176(d) of this subpart.

(4) If a leak is not repaired within 15 calendar days after discovery of the leak, the reason for the delay and the expected date of successful repair.

(5) Records of all analyses required in §§63.175(e) and 63.176(d) of this subpart. The records will include the following:

(i) A list identifying areas associated with poorer than average performance and the associated service characteristics of the stream, the operating conditions and maintenance practices.

(ii) The reasons for rejecting specific candidate superior emission performing valve or pump technology from performance trials.

(iii) The list of candidate superior emission performing valve or pump technologies, and documentation of the performance trial program items required under §§63.175(e)(6)(iii) and 63.176(d)(6)(iii) of this subpart.

(iv) The beginning date and duration of performance trials of each candidate superior emission performing technology.

(6) All records documenting the quality assurance program for valves or pumps as specified in §§63.175(e)(7) and 63.176(d)(7) of this subpart.

(7) Records indicating that all valves or pumps replaced or modified during the period of the quality improvement program are in compliance with the quality assurance requirements in §63.175(e)(7) and §63.176(d)(7) of this subpart.

(8) Records documenting compliance with the 20 percent or greater annual replacement rate for pumps as specified in §63.176(d)(8) of this subpart.

(9) Information and data to show the corporation has fewer than 100 employees, including employees providing professional and technical contracted services.

(i) The owner or operator of equipment in heavy liquid service shall comply with the requirements of either paragraph (i)(1) or (i)(2) of this section, as provided in paragraph (i)(3) of this section.

(1) Retain information, data, and analyses used to determine that a piece of equipment is in heavy liquid service.

(2) When requested by the Administrator, demonstrate that the piece of equipment or process is in heavy liquid service.

(3) A determination or demonstration that a piece of equipment or process is in heavy liquid service shall include an analysis or demonstration that the process fluids do not meet the definition of "in light liquid service." Examples of information that could document this include, but are not limited to, records of chemicals purchased for the process, analyses of process stream composition, engineering calculations, or process knowledge.

(j) Identification, either by list, location (area or group) of equipment in organic HAP service less than 300 hours per year within a process unit subject to the provisions of this subpart under §63.160 of this subpart.

(k) Owners and operators choosing to comply with the requirements of §63.179 of this subpart shall maintain the following records:

(1) Identification of the process unit(s) and the organic HAP's they handle.

(2) A schematic of the process unit, enclosure, and closed-vent system.

(3) A description of the system used to create a negative pressure in the enclosure to ensure that all emissions are routed to the control device.

[59 FR 19568, Apr. 22, 1994, as amended at 59 FR 48177, Sept. 20, 1994; 60 FR 18030, Apr. 10, 1995; 61 FR 31441, June 20, 1996; 62 FR 2792, Jan. 17, 1997; 64 FR 20198, Apr. 26, 1999; 68 FR 37344, June 23, 2003]

§ 63.182 Reporting requirements.

(a) Each owner or operator of a source subject to this subpart shall submit the reports listed in paragraphs (a)(1) through (a)(5) of this section. Owners or operators requesting an extension of compliance shall also submit the report listed in paragraph (a)(6) of this section.

(1) An Initial Notification described in paragraph (b) of this section, and

(2) A Notification of Compliance Status described in paragraph (c) of this section,

(3) Periodic Reports described in paragraph (d) of this section, and

(4)–(5) [Reserved]

(6) Pursuant to section 112(i)(3)(B) of the Act, an owner or operator may request an extension allowing an existing source up to 1 additional year beyond the compliance date specified in the subpart that references this subpart.

(i) For purposes of this subpart, a request for an extension shall be submitted to the operating permit authority as part of the operating permit application. If the State in which the source is located does not have an approved operating permit program, a request for an extension shall be submitted to the Administrator as a separate submittal. The dates specified in §63.6(i) of subpart A of this part for submittal of requests for extensions shall not apply to sources subject to this subpart.

(ii) A request for an extension of compliance must include the data described in §63.6(i)(6)(i) (A), (B), and (D) of subpart A of this part.

(iii) The requirements in §63.6(i)(8) through (i)(14) of subpart A of this part will govern the review and approval of requests for extensions of compliance with this subpart.

(b) Each owner or operator of an existing or new source subject to the provisions of this subpart shall submit a written Initial Notification to the Administrator, containing the information described in paragraph (b)(1), according to the schedule in paragraph (b)(2) of this section. The Initial Notification provisions in §63.9(b)(1) through (b)(3) of subpart A of this part shall not apply to owners or operators of sources subject to this subpart.

(1) The Initial Notification shall include the following information:

(i) The name and address of the owner or operator;

(ii) The address (physical location) of the affected source;

(iii) An identification of the chemical manufacturing processes subject to this subpart; and

(iv) A statement of whether the source can achieve compliance by the applicable compliance date specified in the subpart in 40 CFR part 63 that references this subpart.

(2) The Initial Notification shall be submitted according to the schedule in paragraph (b)(2)(i), (b)(2)(ii), or (b)(2)(iii) of this section, as applicable.

(i) For an existing source, the Initial Notification shall be submitted within 120 days after the date of promulgation of the subpart that references this subpart.

(ii) For a new source that has an initial start-up 90 days after the date of promulgation of this subpart or later, the application for approval of construction or reconstruction required by §63.5(d) of subpart A of this part shall be submitted in lieu of the Initial Notification. The application shall be submitted as soon as practicable before the construction or reconstruction is planned to commence (but it need not be sooner than 90 days after the date of promulgation of the subpart that references this subpart).

(iii) For a new source that has an initial start-up prior to 90 days after the date of promulgation of the applicable subpart, the Initial Notification shall be submitted within 90 days after the date of promulgation of the subpart that references this subpart.

(c) Each owner or operator of a source subject to this subpart shall submit a Notification of Compliance Status within 90 days after the compliance dates specified in the subpart in 40 CFR part 63 that references this subpart, except as provided in paragraph (c)(4) of this section.

(1) The notification shall provide the information listed in paragraphs (c)(1)(i) through (c)(1)(iv) of this section for each process unit subject to the requirements of §63.163 through §63.174 of this subpart.

(i) Process unit identification.

(ii) Number of each equipment type (e.g., valves, pumps) excluding equipment in vacuum service.

(iii) Method of compliance with the standard (for example, “monthly leak detection and repair” or “equipped with dual mechanical seals”).

(iv) Planned schedule for each phase of the requirements in §63.163 and §63.168 of this subpart.

(2) The notification shall provide the information listed in paragraphs (c)(2)(i) and (c)(2)(ii) of this section for each process unit subject to the requirements of §63.178(b) of this subpart.

(i) Batch products or product codes subject to the provisions of this subpart, and

(ii) Planned schedule for pressure testing when equipment is configured for production of products subject to the provisions of this subpart.

(3) The notification shall provide the information listed in paragraphs (c)(3)(i) and (c)(3)(ii) of this section for each process unit subject to the requirements in §63.179 of this subpart.

(i) Process unit identification.

(ii) A description of the system used to create a negative pressure in the enclosure and the control device used to comply with the requirements of §63.172 of this subpart.

(4) For existing sources subject to subpart F of this part, the Notification of Compliance Status shall be submitted for the group of process units with the earliest compliance date specified in §63.100(k) of subpart F of this part, by no later than 90 days after the compliance date for that group. The Notification of Compliance Status for each subsequent group shall be submitted as part of the first periodic report that is due not less than 90 days after the compliance date for that group.

(d) The owner or operator of a source subject to this subpart shall submit Periodic Reports.

(1) A report containing the information in paragraphs (d)(2), (d)(3), and (d)(4) of this section shall be submitted semiannually starting 6 months after the Notification of Compliance Status, as required in paragraph (c) of this section. The first periodic report shall cover the first 6 months after the compliance date specified in §63.100(k)(3) of subpart F. Each subsequent periodic report shall cover the 6 month period following the preceding period.

(2) For each process unit complying with the provisions of §63.163 through §63.174 of this subpart, the summary information listed in paragraphs (i) through (xvi) of this paragraph for each monitoring period during the 6-month period.

(i) The number of valves for which leaks were detected as described in §63.168(b) of this subpart, the percent leakers, and the total number of valves monitored;

(ii) The number of valves for which leaks were not repaired as required in §63.168(f) of this subpart, identifying the number of those that are determined nonrepairable;

(iii) The number of pumps for which leaks were detected as described in §63.163(b) of this subpart, the percent leakers, and the total number of pumps monitored;

(iv) The number of pumps for which leaks were not repaired as required in §63.163(c) of this subpart;

(v) The number of compressors for which leaks were detected as described in §63.164(f) of this subpart;

(vi) The number of compressors for which leaks were not repaired as required in §63.164(g) of this subpart;

(vii) The number of agitators for which leaks were detected as described in §63.173(a) and (b) of this subpart;

(viii) The number of agitators for which leaks were not repaired as required in §63.173(c) of this subpart;

(ix) The number of connectors for which leaks were detected as described in §63.174(a) of this subpart, the percent of connectors leaking, and the total number of connectors monitored;

(x) [Reserved]

(xi) The number of connectors for which leaks were not repaired as required in §63.174(d) of this subpart, identifying the number of those that are determined nonrepairable;

(xii) [Reserved]

(xiii) The facts that explain any delay of repairs and, where appropriate, why a process unit shutdown was technically infeasible.

(xiv) The results of all monitoring to show compliance with §§63.164(i), 63.165(a), and 63.172(f) of this subpart conducted within the semiannual reporting period.

(xv) If applicable, the initiation of a monthly monitoring program under §63.168(d)(1)(i) of this subpart, or a quality improvement program under either §§63.175 or 63.176 of this subpart.

(xvi) If applicable, notification of a change in connector monitoring alternatives as described in §63.174(c)(1) of this subpart.

(xvii) If applicable, the compliance option that has been selected under §63.172(n).

(3) For owners or operators electing to meet the requirements of §63.178(b) of this subpart, the report shall include the information listed in paragraphs (i) through (v) of this paragraph for each process unit.

(i) Batch product process equipment train identification;

(ii) The number of pressure tests conducted;

(iii) The number of pressure tests where the equipment train failed the pressure test;

(iv) The facts that explain any delay of repairs; and

(v) The results of all monitoring to determine compliance with §63.172(f) of this subpart.

(4) The information listed in paragraph (c) of this section for the Notification of Compliance Status for process units with later compliance dates. Any revisions to items reported in earlier Notification of Compliance Status, if the method of compliance has changed since the last report.

[59 FR 19568, Apr. 22, 1994, as amended at 59 FR 48178, Sept. 20, 1994; 60 FR 18030, Apr. 10, 1995; 60 FR 63631, Dec. 12, 1995; 62 FR 2792, Jan. 17, 1997]

§ 63.183 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

(c) The authorities that cannot be delegated to State, local, or Tribal agencies are as specified in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to the requirements in §§63.160, 63.162 through 63.176, 63.178 through 63.179. Follow the applicable procedures of §63.177 to request an alternative means of emission limitation for batch processes and enclosed-vented process units. Where these standards reference another subpart, the cited provisions will be delegated according to the delegation provisions of the referenced subpart. Where these standards reference another subpart and modify the requirements, the requirements shall be modified as described in this subpart. Delegation of the modified requirements will also occur according to the delegation provisions of the referenced subpart.

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[68 FR 37345, June 23, 2003]

Table 1 to Subpart H of Part 63—Batch Processes

Monitoring Frequency for Equipment Other than Connectors

Operating time (% of year)	Equivalent continuous process monitoring frequency time in use		
	Monthly	**Quarterly**	**Semiannually**
0 to <25	Quarterly	Annually	Annually.
25 to <50	Quarterly	Semiannually	Annually.
50 to <75	Bimonthly	Three times	Semiannually.
75 to 100	Monthly	Quarterly	Semiannually.

Table 2 to Subpart H of Part 63—Surge Control Vessels and Bottoms Receivers at Existing Sources

Vessel capacity (cubic meters)	Vapor pressure[1](kilopascals)
75 ≤ capacity < 151	≥13.1
151 ≤ capacity	≥ 5.2[a]

[1]Maximum true vapor pressure of total organic HAP at operating temperature as defined in subpart G of this part.

[60 FR 18025, Apr. 10, 1995]

Table 3 to Subpart H of Part 63—Surge Control Vessels and Bottoms Receivers at New Sources

Vessel capacity (cubic meters)	Vapor pressure[1](kilopascals)
38 ≤ capacity < 151	≥ 13.1
151 ≤ capacity	≥ 0.7

[1]Maximum true vapor pressure of total organic HAP at operating temperature as defined in subpart G of this part.

[60 FR 18025, Apr. 10, 1995]

Table 4 to Subpart H of Part 63—Applicable 40 CFR Part 63 General Provisions

40 CFR part 63, subpart A, provisions applicable to subpart H
§63.1(a)(1), (a)(2), (a)(3), (a)(13), (a)(14), (b)(2) and (c)(4)
§63.2
§63.5(a)(1), (a)(2), (b), (d)(1)(ii), (d)(4), (e), (f)(1) and (f)(2)
§63.6(a), (b)(3), (c)(5), (i)(1), (i)(2), (i)(4)(i)(A), (i)(5) through (i)(14), (i)(16) and (j)
§63.9(a)(2), (b)(4)(i)[a], (b)(4)(ii), (b)(4)(iii), (b)(5)a, (c) and (d)
§63.10(d)(4)
§63.11 (c), (d), and (e)
§63.12(b)

[a]The notifications specified in §63.9(b)(4)(i) and (b)(5) shall be submitted at the times specified in 40 CFR part 65.

[65 FR 78285, Dec. 14, 2000, as amended at 73 FR 78213, Dec. 22, 2008]