West Virginia Department of Environmental Protection

Harold D. Ward
Cabinet Secretary

Permit to Operate

Pursuant to

Title V

of the Clean Air Act

Issued to:

Alliant Techsystems Operations LLC
Allegany Ballistics Laboratory
R30-05700011-2024 (3 of 3)

Laura M. Crowder

Laura M. Crowder
Director, Division of Air Quality

Laura M. Crowder

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Date: 2024.12.03 11:24:08 -05'00'

Issued: December 3, 2024 • Effective: December 17, 2024
Expiration: December 3, 2029 • Renewal Application Due: June 3, 2029

Permit Number: **R30-05700011-2024 (3 of 3)**
Permittee: **Alliant Techsystems Operations LLC**
Facility Name: **Allegany Ballistics Laboratory**
Permittee Mailing Address: **210 State Route 956, Rocket Center, WV 26726-3548**

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:	Rocket Center, Mineral County, West Virginia
Facility Mailing Address:	210 State Route 956, Rocket Center, WV 26726-3548
Telephone Number:	(304) 726 - 5506
Type of Business Entity:	LLC
Facility Description:	Fabrication of both steel and composite structure rocket motor and warhead cases, production of propellants and explosives which are loaded into above cases and all associated case preparation and testing for motors
SIC Codes:	Primary - 3764, Secondary – 3089
UTM Coordinates:	686.47 km Easting • 4381.25 km Northing • Zone 17

Permit Writer: Natalya Chertkovsky-Veselova

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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ATTACHMENT 1 – Record of Visible Emission Observation

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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
Laser Products Fabrication - Group 009					
9-1S	VI	Inert Gas Welding Machine-8	1997	Variable	
9-2S	9-1E	Exhaust Hood-8	Early 90s	Variable	
9-4S	VI	Small Electric Oven-8	Early 90s	Variable	
9-5S	VI	Small Electric Oven-8	Early 90s	Variable	
9-6S	VI	Small Electric Oven-8	Early 90s	Variable	
9-7S	VI	Small Electric Oven-8	Early 90s	Variable	
9-8S	9-2E	Exhaust Hood-8	Early 90s	Variable	
9-9S	VI	Inert Gas Welding Machine-432	1997	Variable	
9-10S	9-3E	Exhaust Hood-432	1997	Variable	
9-11S	VI	Zero Grit Blaster-432	1997	Variable	9-1C
9-12S	VI	Small Electric Oven-432	1997	Variable	
9-13S	VI	Small Electric Oven-432	1997	Variable	
9-14S	VI	Small Electric Oven-432	1997	Variable	
9-15S	9-4E	Exhaust Hood-432	1997	Variable	
9-16S	VI	Helium Leak Detector-432	1997	Variable	
9-17S	VI	Vacuum Oven-432	1997	Variable	
9-18S	VI	Vacuum Oven-432	1997	Variable	
9-19S	9-5E	Laser Etch Workstation-432	1997	Variable	
9-20S	9-6E	Aqueous Parts Washer-432	1997	Variable	
9-21S	VI	Conditioning Chamber-432	1997	Variable	
9-22S	VI	Conditioning Chamber-432	1997	Variable	
9-23S	9-7E	Grenade Fuze Testing Chamber – 361	2006	Variable	
9-24S	NDV	Grenade Fuze Marking Printer - 361	2006	Variable	
9-25S	9-8E	Electronic Fuze – SMT Heller Oven – 432A	2005	Variable	
9-26S	9-9E	Electronic Fuze – MOFA Paint Hood – 432A	2006	Variable	
9-27S	9-10E	Electronic Fuze – M74 Cleaning Station – 432A	2007	9 gal	
9-28S	9-11E	Electronic Fuze – ETFM Cleaning Station	2008	100 gal	
Boilers and Heaters - Group 00L					
Plant 2					
L-12S	L-6E	Dual Fuel Steam Boiler	2005/2006/ 2014	9.96 MMBtu/hr	None

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
L-33S	L-10E/L-13E	Dual Fuel Boiler (NG as primary w/ULSD as back-up supply) L-33S, L-34S & L-35S share a common economizer Mfg.: Miura Model: EX200SGO-07	2020	7.9 MMBtu/hr	None
L-34S	L-11E/L-13E	Dual Fuel Boiler (NG as primary w/ULSD as back-up supply) L-33S, L-34S & L-35S share a common economizer Mfg.: Miura Model: EX200SGO-07	2020	7.9 MMBtu/hr	None
L-35S	L-12E/L-13E	Dual Fuel Boiler (NG as primary w/ULSD as back-up supply) L-33S, L-34S & L-35S share a common economizer Mfg.: Miura Model: EX200SGO-07	2020	7.9 MMBtu/hr	None
L-21S	VI	Nalco 1720 Oxygen Scavenger Feed Tank-8501	2001	100 gal	
L-22S	VI	Boiler Feedwater Chemical Tank-8501	2001	100 gal	
		Plant 1			
L-23S	L-8E*** or L-9E****	Boiler, NG with Diesel back-up (Miura EXN-300SGOF)	2015	12 MMBtu/hr	None
L-24S	L-8E or L-9E	Boiler, NG with Diesel back-up (Miura EXN-300SGOF)	2015	12 MMBtu/hr	None
L-25S	L-8E or L-9E	Boiler, NG with Diesel back-up (Miura EXN-300SGOF)	2015	12 MMBtu/hr	None
L-26S	L-8E or L-9E	Boiler, NG with Diesel back-up (Miura EXN-300SGOF)	2015	12 MMBtu/hr	None
L-27S	L-8E or L-9E	Boiler, NG with Diesel back-up (Miura EXN-300SGOF)	2015	12 MMBtu/hr	None
L-28S	L-8E or L-9E	Boiler, NG with Diesel back-up (Miura EXN-300SGOF)	2015	12 MMBtu/hr	None
L-29S	L-8E or L-9E	Boiler, NG with Diesel back-up (Miura EXN-300SGOF)	2015	12 MMBtu/hr	None
L-30S	L-8E or L-9E	Boiler, NG with Diesel back-up (Miura EXN-300SGOF)	2015	12 MMBtu/hr	None
L-31S	L-8E or L-9E	Boiler, NG with Diesel back-up (Miura EXN-300SGOF)	2015	12 MMBtu/hr	None
L-32S	L-8E or L-9E	Boiler, NG with Diesel back-up (Miura EXN-300SGOF)	2015	12 MMBtu/hr	None
		Plant 3 (Section X.0)			
L-36S	L-14E	Dual Fuel Boiler (NG as primary w/ULSD as back-up supply) Mfg.: Miura Model: EX100SGO-07	2020	3.94 MMBtu/hr	None
L-37S	L-15E	Dual Fuel Boiler (NG as primary w/ULSD as back-up supply) Mfg.: Miura Model: EX100SGO-07	2020	3.94 MMBtu/hr	None

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
P3-7S	P3-7E	Process Heater 11S for B3040	2018	0.5 MMBtu/hr	None
P3-8S	P3-8E	Process Heater 12S for B3040	2018	0.5 MMBtu/hr	None
P3-9S	P3-9E	Process Heater 13S for B3040	2018	0.5 MMBtu/hr	None
P3-11S	P3-10E	Process Heater Unit #7 for 3030A	2019	0.5 MMBtu/hr	None
P3-12S	P3-11E	Process Heater Unit #8 for 3030A	2019	0.5 MMBtu/hr	None
P3-13S	P3-12E	Process Heater Unit #9 for 3030A	2019	0.5 MMBtu/hr	None
		Plant IV			
P4-5S	P4-8E	Process Heater Mfg.: CleaverBrooks Model: CBLE-4D 700-250-125HW SN: T9692-1-1	2024	10.2 MMBtu/hr	None
P4-6S	P4-9E	Process Heater Mfg.: CleaverBrooks Model: CBLE-4D 700-250-125HW SN: T9692-2-1	2024	10.2 MMBtu/hr	None
		Emergency Engines			
EG-1	EG-1	Onan DGEA (Portable) (Bldg 372)	1998	167.6 bhp / 1800 rpm	
EG-2	EG-2	Cummins-Onan 400 DFEB (Bldg (344)	2000	600 bhp / 1800 rpm	
EG-3	EG-3	Kohler (Bldg 415)	1999	241.4 bhp / 1800 rpm	
EG-4	EG-4	Kohler 300ROEZD71 (Bldg 440)	1995	490 bhp / 1800 rpm	
EG-5	EG-5	Kohler 300ROEZD72 (Bldg 440)	1998	490 bhp / 1800 rpm	
EG-6	EG-6	Kohler 800REOZM (Bldg 449)	2004	1207 bhp / 1800 rpm	
EG-7	EG-7	Kohler 500REOZVB-IC2C2 Tier 2 (Bldg 440)	2008	757 bhp / 1800 rpm	
EG-8*****	EG-8	Stamford D5847/1(Bldg 8501)	Before 1990	90 bhp / 1800 rpm	
EG-9	EG-9	MTU 1250RXC5DT2 Tier 2 (Bldg 449)	2010	1675.25 bhp / 1800 rpm	
EG-10	EG-10	Caterpillar D100-4 Tier 2 (Bldg 385)	November 2006	157.5 bhp / 1800 rpm	
EG-11	EG-11	Caterpillar C3456 TA (Bldg 2006) Manufactured: 2002	2012	670.5 bhp / 1800 rpm	
EG-12	EG-12	MTU Detroit Diesel 2250-RXC6DT2 Tier 2 (Bldg 600); Manufactured: 2008	2012	3,352 bhp / 1800 rpm	

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
EG-17	EG-17E	Emergency Generator for Bldg. 8501 Compression Ignition (CI) Engine Gen. Mfg. Kohler Model 500REOZJC Engine Mfg. John Deere Model 6135HFG75 Engine Family LJDXL13.5132 Model Year: 2022	2022	755 hp	None
EG-18	EG-18E	Emergency Generator for Bldg. 2007 Compression Ignition (CI) Engine Gen. Mfg. Kohler Model 300REOZJ Engine Mfg. John Deere Model 6090HFG86A Engine Family NJDXL09.0114 Model Year: 2022	2022	463 hp	None
		Plant 1			
EG-13	EG-13	Generator Set (Emergency Use) (Kohler 700 XC6DT2) w/Diesel Engine Mfg & Model: MTU 12V2000 G85TB EPA Engine Family: EMDDL35.8GRR	2015	890 kW/1193 ~~B~~bhp	None
EG-15	EG-15E	Emergency Generator for Bldg. 362 Compression Ignition (CI) Engine Gen. Mfg. Kohler Model 40REOZk Engine Mfg. Kohler Model 6135HFG75 Engine Family KJDXL13.5132	2019	67 bhp	None
EG-16	EG-16E	Emergency Generator for Bldg. 372 Compression Ignition (CI) Engine Gen. Mfg. Kohler Model 150REOZJF Engine Mfg. John Deere Model 6068HF285K Engine Family KJDXL06.8120-003	2019	237 bhp	None
		Plant 3 (Section X.0)			
EG-14	EG-14E	Emergency Generator for B3030 Compression Ignition (CI) Engine Gen. Mfg. Kohler Model 500REOZJB Engine Mfg. John Deere Model 6135HFG75 Engine Family KJDXL13.5132	2020	755 hp	None
		Plant IV			
EG-19	EG-19E	Emergency Generator for Bldg. 429 Compression Ignition (CI) Engine Engine Mfg.: Kohler Engine Model KD12504TM/G18 Engine Family: PKHL02.5EST Model Year: 2023	2024	48.8 bhp	None

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
Storage Tanks - Group 00M					
M-2S	M-2E	Fuel Oil Storage Tank-344	1971	50,000 gal	
M-3S	M-3E	Fuel Oil Storage Tank-344	1971	50,000 gal	
M-5S	M-5E	Fuel Oil Aboveground Storage Tank-344	2000	550 gal	
M-6S	M-6E	Propane Storage Tank-256	1993	1,000 gal	
M-7S	M-7E	Propane Storage Tank-256	1993	1,000 gal	
M-8S	M-8E	Propane Storage Tank-256	1993	1,000 gal	
M-28S	M-28E	Propane Storage Tank	1993	1,000 gal	
M-29S	M-29E	Propane Storage Tank-256	1993	1,000 gal	
M-30S	M-30E	Propane Storage Tank-256	1993	1,000 gal	
M-9S	M-9E	Propane Storage Tank-412	1997	1,000 gal	
M-10S	M-10E	Propane Storage Tank-412	1997	1,000 gal	
M-31S	M-31E	Propane Storage Tank-412	1997	1,000 gal	
M-11S	M-11E	Propane Storage Tank-438	1996	18,000 gal	
M-32S	M-32E	Propane Storage Tank-420	1999	1,000 gal	
M-33S	M-33E	Propane Storage Tank-420	1999	1,000 gal	
M-34S	M-34E	Propane Storage Tank-420	1999	1,000 gal	
M-35S	M-35E	Propane Storage Tank-420	1999	1,000 gal	
M-12S	M-12E	Gasoline Storage Tank-7	1993	6,000 gal	
M-13S	M-13E	Diesel Storage Tank-7	1993	4,000 gal	
M-20S	M-20E	Fuel Oil Storage Tank-8501	1996	15,000 gal	
M-21S	M-21E	Fuel Oil Storage Tank-8501	1996	15,000 gal	
M-22S	M-22E	Actrel Storage Tank-2014	1995	1,800 gal	
M-23S	M-23E	Actrel Storage Tank-2014	1995	1,500 gal	
M-24S	M-24E	Solvent Storage Tank-8203	1998	500 gal	
M-25S	M-25E	Solvent Storage Tank-8203	1998	500 gal	
M-26S	M-26E	Solvent Storage Tank-8203	1998	500 gal	
M-27S	M-27E	Diesel Fuel Storage Tank-344		275 gal	
M-36S (M-28S in R13-3186)	N/A	Storage Vessel (Ultra-Low Sulfur Diesel)	2015	30,000 gallons	None
Water Treatment - Group 00N					
N-1S	FUG	Reactor Basin-442	1996	100,000 gal	
N-2S	FUG	Reactor Basin-442	1996	100,000 gal	
N-4S	CS	Explosive Wastewater Treatment System-383	1994	14,000 gal/day	Full Enclosure
N-5S	FUG	Facility Water Treatment System-535	1996	504,000 gal/day	
N-6S	FUG	Aeration Basin-8560	1968	2,160 gal	
Explosive Solid Waste Treatment - Group 00O					

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
O-1S	FUG	Burning pans BG	2005	Variable	
		Research Complex - Group 00P			
P-20S	P-12E	Large (100 pound) Dessicator Sparge Line-21	1992	100 lb	
P-21S	P-13E	Large (100 pound) Dessicator Sparge Line-21	1992	100 lb	
P-30S	OS	Sweco Grinder	NA		
P-28S	VI	Scrap Storage Drum-289	1996	55 gallon	
P-29S	VI	Scrap Storage Drum-289	1996	55 gallon	
P-31S	P-21E	5-gal Mixer-290	1963	5 gallon	
P-32S	P-22E	Parts Cleaning Station-290	1963	Variable	
P-33S	P-23E	Exhaust hood (Rm.109)-394	1996	Variable	
P-34S	P-23E	Exhaust hood (Rm.110)- 394	1996	Variable	
P-35S	P-23E	Fume extractor-394	1996	Variable	
P-36S	P-23E	Fume extractor-394	1996	Variable	
P-37S	P-23E	Fume extractor-394	1996	Variable	
P-38S	P-23E	Fume extractor-394	1996	Variable	
P-39S	P-23E	Fume extractor-394	1996	Variable	
P-40S	P-24E	Neslab Low Temp Bath Circulator for Tensile Testing-394	1996	Variable	
P-41S	P-25E	Exhaust hood-405-108	1996	Variable	
P-42S	P-25E	Exhaust hood-405-110	1996	Variable	
P-43S	P-25E	Exhaust hood-405-110	1996	Variable	
P-44S	P-25E	Exhaust hood-405-112	1996	Variable	
P-45S	P-25E	Exhaust hood-405-114	1996	Variable	
P-46S	P-25E	Exhaust hood-405-115	1996	Variable	
P-47S	P-25E	Exhaust hood-405-117	1996	Variable	
P-48S	P-25E	Exhaust hood-405-119	1996	Variable	
P-49S	P-25E	Exhaust hood-405-119	1996	Variable	
P-50S	P-25E	Exhaust hood-405-124	1996	Variable	
P-51S	P-25E	Exhaust hood-405-124	1996	Variable	
P-52S	P-25E	Exhaust hood-405-124	1996	Variable	
P-53S	P-25E	Exhaust hood-405-125	1996	Variable	
P-54S	P-25E	Exhaust hood-405-125	1996	Variable	
P-56S	P-25E	Exhaust hood-405-129	1996	Variable	
P-57S	P-25E	Exhaust hood-405-131	1996	Variable	
P-58S	P-25E	Exhaust hood-405-133	1996	Variable	
P-59S	P-25E	Exhaust hood-405-134	1996	Variable	
P-60S	P-25E	Exhaust hood-405-135	1996	Variable	
P-61S	P-25E	Exhaust hood-405-135	1996	Variable	
P-62S	P-25E	Exhaust hood-405-138	1996	Variable	
P-63S	P-25E	Exhaust hood-405-138	1996	Variable	

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
P-64S	P-26E	Exhaust hood-405-119	1996	Variable	
P-65S	P-27E	Exhaust hood-405-135	1996	Variable	
P-66S	P-27E	Exhaust hood-405-135	1996	Variable	
P-68S	P-28E	Exhaust hood-405-138	1996	Variable	
P-68S	P-28E	Exhaust hood-405-138	1996	Variable	
P-69S	P-29E	Fume Extractors for Atomic Absorption Test Equipment-405-110	1996	Variable	
P-70S	P-29E	Fume Extractors for Atomic Absorption Test Equipment-405-110	1996	Variable	
P-71S	P-25E	Fume Extractors for Gas Chromatography-405-129	1996	Variable	
P-72S	P-25E	Fume Extractors for Gas Chromatography-405-129	1996	Variable	
P-73S	P-25E	Fume Extractors for Gas Chromatography-405-129	1996	Variable	
P-74S	P-30E	Electric oven-405-113	1996	Variable	
P-75S	P-30E	Electric oven-405-113	1996	Variable	
P-76S	P-30E	Electric oven-405-113	1996	Variable	
P-77S	P-30E	Electric oven-405-113	1996	Variable	
P-78S	P-30E	Electric oven-405-113	1996	Variable	
P-79S	P-30E	Electric oven-405-113	1996	Variable	
P-80S	P-25E	Parr Bomb Exhaust-405-136	1996	Variable	
P-81S	P-31E	Exhaust hood-406-101	1996	Variable	
P-82S	P-31E	Exhaust hood-406-103	1996	Variable	
P-83S	P-31E	Exhaust hood-406-106	1996	Variable	
P-84S	P-31E	Exhaust hood-406-106	1996	Variable	
P-85S	P-31E	Exhaust hood-406-107	1996	Variable	P-4C
P-86S	P-31E	Benchtop Slotted Exhaust-406-106	1996	Variable	
P-87S	P-31E	Walk-in Electric Oven-406-107	1996	Variable	
P-88S	P-31E	Despatch Electric Oven-406-109	1996	Variable	
P-89S	P-31E	Young Brothers Electric Oven-406-109	1996	Variable	
P-90S	P-31E	Young Brothers Electric Oven-406-109	1996	Variable	
P-91S	P-31E	3 Roll Mill-406-113	1996	Variable	
P-92S	P-31E	2 Roll Mill-406-113	1996	Variable	
P-93S	VI	Dake Press-406-113	1996	Variable	
P-94S	VI	Dake Press-406-113	1996	Variable	
P-95S	VI	Dake Press-406-113	1996	Variable	
P-96S	VI	Empire Grit Blaster-406-110	1996		P-5C
P-97S	FUG	Sensitivity Test Pits-500	Pre-70s	Variable	
P-94S	P-33E	Exhaust hood-404-102	1997	Variable	
P-95S	P-33E	Exhaust hood-404-104	1997	Variable	
P-96S	P-33E	Exhaust hood-404-106	1997	Variable	
P-97S	P-33E	Exhaust hood-404-108	1997	Variable	
P-99S	P-33E	Exhaust hood-404-105	1997	Variable	
P-100S	P-33E	Exhaust hood-404-107	1997	Variable	
P-101	P-33E	Exhaust hood-404-111	1997	Variable	

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
P-102S	P-33E	Exhaust hood-404-111	1997	Variable	
P-103S	P-33E	Exhaust hood-404-111	1997	Variable	
P-104S	P-34E	Fume extractor-404-114	2004	Variable	P-7C
P-108S	P-34E	Fume extractor-404-112	2004	Variable	P-7C
P-105S	P-35E	Chemical fume hood-403-101	1998	Variable	
P-106S	P-36E	Slotted exhaust-403-101	1998	Variable	P-8C
P-107S	P-36E	Slotted exhaust-403-101	1998	Variable	P-8C
P-109S	P-37E	5 gallon mixer-396	2001	5 gallons	
P-110S	P-38E	Exhaust hood-396	2001	Variable	
P-111S	P-39E	Fume extractor-396	2001	Variable	
P-115S	P-43E	Fume hood-400-121	1999	Variable	
P-116S	P-44E	Fume extractor-400-116	1999	Variable	
P-117S	P-45E	Micro mixer-400-116	1999	Variable	
P-118S	P-46E	One pound Sigma mixer-400-116	1999	1 lb	
P-119S	P-46E	One pound Sigma mixer-400-110	1999	1 lb	
P-120S	P-47E	One pound Sigma mixer-400-106	1999	1 lb	
P-121S	P-48E	Fume hood-400-117	1999	Variable	
P-122S	P-49E	Fume extractor-401	1999	Variable	
P-123S	P-50E	Fume hood-401	1999	Variable	
P-124S	P-51E	Ten pound mixer-401	1999	10 lb	
P-116S	P-44E	Fume extractor-400-116	1999	Variable	
		Static Firing / X-Range - Group 00Q			
Q-1S	FUG	Static Test Firing Bay-77	1959	Variable	
Q-2S	FUG	Static Test Firing Bay-193	1959	Variable	
Q-3S	FUG	Static Test Firing Bay-194	1959/ Summer 2002	Variable	
Q-4S	FUG	Static Test Firing Bay-242	1961	Variable	
		Hazardous Waste Storage - Group 00R			
N/A	FUG	Hazardous Waste Storage Pad	1989	320 drums	N/A
		Photographic Development - Group 00S			
S-1S	VI	3M-2300 Processor Camera-8	1995	Variable	
S-2S	VI	Photo Developer Machine	1995	Variable	
S-3S	VI	Kodamatic 42S Processor	1995	Variable	
S-4S	VI	Agfa-Geraert Developer	1995	Variable	
		TPEG Polymer Manufacture - Group 00T			
T-1S	T-1E or T-2E	Reactor vessel	1999	6500 lb/batch	T-1C
T-2S	T-1E	Reactor distillate receiver	1999	7 GPM	T-1C

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
T-3S	T-1E or T-3E	Separator	1999	5000 lb/batch	T-1C
T-4S	T-1E	Wiped film evaporator	1999	120 GPM	T-1C
T-5S	T-1E or T-4E	Waste acid water tank	2001	1000	T-1C
T-6S	T-5E	Tetrahydrofuran drum filling	1999	6 GPM	

Groundwater Pump & Treatment- Group 00U

U-1S	CS	Peroxide contact tank-424	1999	300 gpm	Closed
U-2S	CS	Pressure filters-424	1999	5 gpm/SF	Closed
U-3S	CS	UV/Oxidation unit-424	1999	220 gpm	Closed
U-4S	U-1E	Air stripper-424	1999	Variable	
U-5S	CS	Carbon filter-424	1999	300 gpm	Closed
U-6S	CS	Peroxide storage tote-424	1999	100 gal	Closed
U-7S	CS	Peroxide storage tote-424	1999	100 gal	Closed
U-8S	CS	Peroxide storage tote-424	1999	100 gal	Closed

Control Devices

Control Device ID	Emission Point ID	Control Device Description	Year Installed / Modified	Design Capacity	Comments
9-1C	VI	Cyclone dust collector grit blaster	1997	99.9% (PM)	
L-1C	L-1E	Baghouse	1988	93.75 (PM)	
P-4C	P-31E	Fabric filter for exhaust hood	1996	90-95% (PM)	
P-5C	VI	Cyclone dust collector grit blaster	1999	99.9% (PM)	
P-7C	P-34E	Acid neutralization system	2001	99.9% (HCl)	
P-8C	P-36E	HEPA filter for slotted hood	1996	99.9% (PM)	
T-1C	T-1E, T-2E, T-3E, T-4E	Packed bed scrubber	1999	99% (THF)	

* VI stands for "Vents inside of building"
** FUG stands for "Fugitives"
*** L-8E is the economizer stack
**** L-9E is the by-pass stack around the economizer
***** Emergency generator EG-8 will remain in this permit until such time that the General Permit Registration G60-C020 is modified to remove it and its requirements

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
R13-1771B	04/27/2004
R13-2301A	07/13/2001
R13-3186E	06/04/2024
G60-C020	09/30/2010
G60-C066	11/20/2014

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 other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.39.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

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

2.2. Acronyms

CAAA	Clean Air Act Amendments	**NSPS**	New Source Performance Standards
CBI	Confidential Business Information	**PM**	Particulate Matter
CEM	Continuous Emission Monitor	**PM_{10}**	Particulate Matter less than 10μm in diameter
CES	Certified Emission Statement	**pph**	Pounds per Hour
C.F.R. *or* CFR	Code of Federal Regulations	**ppm**	Parts per Million
CO	Carbon Monoxide	**PSD**	Prevention of Significant Deterioration
C.S.R. *or* CSR	Codes of State Rules	**psi**	Pounds per Square Inch
DAQ	Division of Air Quality	**SIC**	Standard Industrial Classification
DEP	Department of Environmental Protection	**SIP**	State Implementation Plan
FOIA	Freedom of Information Act	**SO_2**	Sulfur Dioxide
HAP	Hazardous Air Pollutant	**TAP**	Toxic Air Pollutant
HON	Hazardous Organic NESHAP	**TPY**	Tons per Year
HP	Horsepower	**TRS**	Total Reduced Sulfur
lbs/hr *or* lb/hr	Pounds per Hour	**TSP**	Total Suspended Particulate
LDAR	Leak Detection and Repair	**USEPA**	United States Environmental Protection Agency
m	Thousand	**UTM**	Universal Transverse Mercator
MACT	Maximum Achievable Control Technology	**VEE**	Visual Emissions Evaluation
mm	Million	**VOC**	Volatile Organic Compounds
mmBtu/hr	Million British Thermal Units per Hour		
$mmft^3$/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		

2.3. Permit Expiration and Renewal

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

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

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

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

2.4. Permit Actions

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

2.5. Reopening for Cause

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

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

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

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

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

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

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

2.7. Minor Permit Modifications

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

2.8. Significant Permit Modification

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

2.9. Emissions Trading

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

2.10. Off-Permit Changes

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

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

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

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

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

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

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

[45CSR§30-5.9.]

2.11. Operational Flexibility

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

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

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

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

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

[45CSR§30-5.8.c.]

2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
[45CSR§30-2.40]

2.12. Reasonably Anticipated Operating Scenarios

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

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

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

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

[45CSR§30-5.1.i.]

2.13. Duty to Comply

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

2.14. Inspection and Entry

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

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

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

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

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

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

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

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

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

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

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

2.17. Reserved

2.18. Federally-Enforceable Requirements

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

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

2.19. Duty to Provide Information

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

2.20. Duty to Supplement and Correct Information

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

2.21. Permit Shield

2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof.
[45CSR§30-5.6.a.]

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

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

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

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

[45CSR§30-5.6.c.]

2.22. Credible Evidence

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

2.23. Severability

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

2.24. Property Rights

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

2.25. Acid Deposition Control

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

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

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

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

[45CSR§30-5.1.d.]

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

3.0 Facility-Wide Requirements

3.1. Limitations and Standards

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

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

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

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

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

3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality. **[W.Va. Code § 22-5-4(a)(15)]**

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 pertinent sections of 45CSR13 applicable to this facility include, but are not limited to, the following:

§45-13-6.1
At the time a stationary source is alleged to be in compliance with an applicable emission standard and at reasonable times to be determined by the Director thereafter, appropriate tests consisting of visual determinations or conventional in-stack measurements or such other tests the Director may specify shall be conducted to determine compliance.

[45CSR13, R13-2301, B.6 and R13-1771, B.7]

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.
[45CSR13, R13-3186, 4.1.5, 6.1.4 and 45CSR§13-5.10]

3.2. Monitoring Requirements

3.2.1. None.

3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.

b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit shall be revised in accordance with 45CSR§30-6.4 or 45CSR§30-6.5 as applicable.

c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

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)(15-16) and 45CSR13]

3.3.2. A test protocol (as per Requirement 3.3.1.c.) shall include detailing on the proposed test methods, the date and the time the proposed testing is to take place, as well as identifying the sampling locations and other relevant information.
[45CSR13, R13-1771, B.9]

3.3.3. Test results shall be submitted to the Secretary no more than sixty (60) days after the date the testing takes place.
[45CSR13, R13-1771, B.9]

3.3.4. Tests that are required by the Director to determine compliance with the emission limitations set forth in this permit shall be conducted in accordance with the methods as set forth below. The Director may require a different test method or approve an alternative method in light of any new technology advancements that may occur. Compliance testing shall be conducted at 100% of the peak load unless otherwise specified by the Director.

a. Tests to determine compliance with PM emission limits shall be conducted in accordance with Method 5, 5A, 5B, 5C, 5D, 5E, 5F, 5G, or 5H as set forth in 40 CFR 60, Appendix A.

b. Tests to determine compliance with SO_2 emission limits shall be conducted in accordance with Method 6, 6A, 6B, or 6C as set forth in 40 CFR 60, Appendix A.

c. Tests to determine compliance with CO emission limits shall be conducted in accordance with Method 10, 10A, or 10B as set forth in 40 CFR 60, Appendix A.

d. Tests to determine compliance with NO_x emission limits shall be conducted in accordance with Method 7, 7A, 7B, 7C, 7D, or 7E as set forth in 40 CFR 60, Appendix A.

e. Tests to determine compliance with VOC and Hydrocarbons emission limits shall be conducted in accordance with Method 25, or 25A as set forth in 40 CFR 60, Appendix A.

f. Tests to determine compliance with Opacity of emissions shall be conducted in accordance with Method 9 as set forth in 40 CFR 60, Appendix A.

g. Tests to determine compliance with HAP emission limits shall be conducted in accordance with 40 CFR 63.

h. Tests to determine compliance with Sulfuric Acid emission limits shall be conducted in accordance with Method 8 as set forth in 40 CFR 60, Appendix A.

i. Tests to determine compliance with Lead Oxide emission limits shall be conducted in accordance with Method 12 as set forth in 40 CFR 60, Appendix A.

[45CSR13, R13-1771, B.8]

3.4. Recordkeeping Requirements

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

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

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of the analyses; and

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

[45CSR§30-5.1.c.2.A; 45CSR13, R13-3186, 4.4.1, 6.3.1; G60-D, 4.2.1]

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, R13-3186, 4.4.2, 6.3.2]

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, R13-3186, 4.4.3, 6.4.3]

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 compliance certification and semi-annual monitoring reports to the DAQ and USEPA as required in 3.5.5 and 3.5.6 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class or by private carrier with postage prepaid to the address(es), or submitted in electronic format by e-mail as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

DAQ:

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

US EPA:

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

DAQ Compliance and Enforcement[1]:
DEPAirQualityReports@wv.gov

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

3.5.4. **Fees.** The permittee shall pay fees on an annual basis in accordance with 45CSR§30-8. **[45CSR§30-8.]**

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

DAQ:
DEPAirQualityReports@wv.gov

US EPA:
R3_APD_Permits@epa.gov

[45CSR§30-5.3.e.]

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

DAQ:
DEPAirQualityReports@wv.gov

[45CSR§30-5.1.c.3.A.]

3.5.7. **Reserved.**

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. Reserved.

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 email. 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. None.

3.7. Permit Shield

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

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

(a) 45CSR21– Regulation to Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds. The facility is not located in a county that is currently subject to 45CSR21, and is therefore currently exempt from this regulation.

(b) 40 C.F.R. 63, Subpart PPP – National Emission Standards for Polyether Polyol Production. The facility manufactures Terathane Polyethylene Glycol Block Copolymer (TPEG), which is a Polyether Polyol. However, the operation is exempted from this MACT because there are no HAPs used or generated during the manufacturing operation.

(c) 40 C.F.R. 63, Subpart GGGGG – National Emission Standards for Site Remediation. The facility currently has two sites under remediation for groundwater contamination. These sites are both CERCLA ("Superfund") sites and are thus exempt from the MACT requirements. The facility also has a third site, commonly referred to as Plant 2, which is currently being investigated under the RCRA corrective action program, that could potentially require some form of active groundwater remediation or treatment within the next five to ten years. This site would also be exempted since it is being managed under a RCRA corrective action.

(d) 40 C.F.R. 63, Subpart WWWW – National Emission Standards for Reinforced Plastic Composites Manufacturing. The facility manufactures composite based rocket motor chambers and aircraft components. However, the facility is exempt from this MACT because none of the resin or fiber systems used, contain HAPs.

4.0. Boilers and Heaters Requirements [Emission Units Group ID 00L]

4.1. Limitations and Standards

4.1.1. The following conditions and requirements are specific to Boiler L-12S:

a. The boiler shall be fired with "pipeline quality natural gas" at all times except when conducting periodic testing, and readiness checks of the boiler's ability to fire on liquid fuel (distillate oil); during periods of natural gas curtailment; or gas supply emergencies. The duration of such periodic testing and/or readiness check shall not exceed more than 48 hours per year for the boiler.

b. The boiler shall be limited to a CO emission rate not to exceed 0.36 pounds per hour, a NO_x emissions rate not to exceed of 1.44 pounds per hour, and an SO_2 emission rate of 5.1 pounds per hour while firing on distillate oil or any combination of distillate oil with natural gas.

c. The maximum sulfur content of the distillate oil to be fired in the boiler shall not exceed 0.5 percent weight or 5,000 ppm by weight. This limit satisfies the SO_2 emissions limit in item (b) of this condition.

d. At times when the boiler is fired entirely with natural gas, this operating condition satisfies compliance with the limitations of 45CSR§2-3.1.
[45CSR§2A-3.1.a]

e. At all times when the affected emission unit is operated on distillate oil or any combination of distillate oil and natural gas, the unit shall not exhibit visible emissions greater than 10% opacity on a six minute block average. Compliance shall be verified in accordance with Condition 4.2.5 of this permit.
[45CSR§2-3.1]

f. The boiler shall not have a maximum heat input in excess as listed in Table 1.1. Compliance with this limit shall be satisfied by limiting the annual heat input to 87,250 MMBtu/hr for L-12S.

g. The permittee shall conduct the initial tune-up for the unit before January 31, 2016 (40 CFR §63.7510(e) & §63.7495(b)) and subsequent tune-up every 25 months thereafter (40 CFR §63.7515(d)). If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of re-startup of the unit. Each tune-up shall be conducted in accordance with Condition 4.1.9.
[40 C.F.R. §63.7500(a)(1), §63.7505(a), §§63.7510(e) and(j), §63.7515(d), §§63.7540(a)(11) and (13), and Table 3 to Subpart DDDDD of Part 63 Work Practice Standards; 45CSR34]

[45CSR13, R13-3186, 6.1.1]

4.1.2. The permittee shall conduct a "one-time energy assessment" of the facility, which shall include Boiler L-12S, as specified in Table 3 of 40 CFR 63 Subpart DDDDD. Pursuant to 40 CFR §63.7510(e), the energy assessment shall be completed no later than January 31, 2016.
[45CSR13, R13-3186, 6.1.2 and 40 C.F.R. §63.7500(a)(1), §63.7505(a), and Table 3 of 40 C.F.R. 63 Subpart DDDDD; 45CSR34]

4.1.3. The following conditions and requirements are specific to boilers identified as L-23S through L-32S:

a. Each boiler shall be fired with "pipeline quality natural gas" at all times except when conducting periodic testing, and readiness checks of the boilers' ability to fire on liquid fuel (distillate oil); during periods of natural gas curtailment; or gas supply emergencies. The duration of such periodic testing and/or readiness check shall not exceed more than 48 hours per year for each boiler.

b. The total release of CO through emission points L-8E and L-9E shall not exceed 9.4 pounds per hour on a combined total basis.

c. The total release of NO_x through emission points L-8E and L-9E shall not exceed 4.6 pounds per hour on a combined total basis.

d. The maximum sulfur content of the distillate oil to be fired in the boilers shall not exceed 0.0015 percent weight or 15 ppm by weight. The use of ultra-low sulfur diesel as the distillate oil in these boilers satisfies this limit.
[45 CSR §10-3.3.6, 45CSR16 and 40 CFR §60.42c(d)]

e. At times when the boiler(s) is fired entirely with natural gas, this operating condition satisfies compliance with the limitations of 45CSR§2-3.1, 45CSR§2-4.1.2, and 45CSR§10-3.3.6.
[45CSR§2A-3.1.a, 45CSR§10-10.3, and 45CSR§10A-3.1.b]

f. At all times when each affected emission unit is operated on distillate oil or any combination of distillate oil and natural gas, the unit shall not exhibit visible emissions greater than 10% opacity on a six minute block average. Compliance shall be verified in accordance with Condition 4.2.5 of this permit. **[45CSR§2-3.1]**

g. Each boiler shall not have a maximum heat input in excess of 12 MMBtu/hr and aggregated total from all ten boilers of no greater than 120 MMBtu/hr of heat input. Compliance with this limit shall be satisfied by limiting the aggregated total annual heat input to 1,051,200 MMBtu per year.

[45CSR13, R13-3186, 4.1.1]

4.1.4. The following conditions and requirements are specific to Boilers L-33S, L-34S, and L-35S:

a. Each boiler shall be fired with "pipeline quality natural gas" at all times except when conducting periodic testing, and readiness checks of the boilers' ability to fire on liquid fuel (distillate oil); during periods of natural gas curtailment; or gas supply emergencies. The duration of such periodic testing and/or readiness check shall not exceed more than 48 hours per year for each boiler. When using distillate oil, the units are restricted to using ultra low sulfur diesel.

b. CO emissions from emission point L-13E shall not exceed an amount as calculated using the following equation.

$$EL_{CO} = \mathbf{[}(0.074\ lb/MMBtu \times \Sigma HI_{gas}) + (0.234\ lb/MMBtu \times \Sigma HI_{diesel})\mathbf{]} \ / \ HI_{total}$$

Where:

EL_{CO} = Emission Limit for CO, in terms of lb per hour.

HI_{gas} = Actual Heat Input from natural gas firing from the boilers venting to L-13E, in terms of MMBtu/hr

HI_{diesel} = Actual Heat Input from diesel firing from the boilers venting to L-13E, in terms of MMBtu/hr

HI_{total} = Total Heat Input from the boilers venting to Emission Point L-13E, in term of MMBtu/hr

Compliance with this limit shall be based on three (3) hour average.

c. NO_x emissions from emission point L-13E shall not exceed an amount as calculated using the following equation.

$$EL_{NOx} = [(0.12\ lb/MMBtu \times \Sigma HI_{gas}) + (0.154\ lb/MMBtu \times \Sigma HI_{diesel})] / HI_{total}$$

Where:

EL_{NOx} = Emission Limit for NO_x in terms of lb per hour.

HI_{gas} = Heat Input from natural gas firing from the boilers venting to Emission Point L-13E, in terms of MMBtu/hr

HI_{diesel} = Heat Input from diesel firing, in terms of MMBtu/hr

HI_{total} = Total Heat Input from the boilers venting to Emission Point L-13E, in terms of MMBtu/hr

Compliance with this limit shall be based on three (3) hour average.

d. At times when the boilers are by-passed around the economizer, the NOx emissions shall not exceed 0.96 pounds per hour during natural gas firing and 1.19 pounds per hour during diesel firing for each by-passed boiler. Compliance with this limit shall be based on three (3) hour average.

e. At times when any of the boilers are by-passed by the economizer, the CO emissions shall not exceed 0.58 pounds per hour during natural gas firing and 1.80 pounds per hour during diesel firing for each by-passed boiler. Compliance with this limit shall be based on three (3) hour average.

f. Compliance with the above emission limits shall be satisfied by tuning each unit to a CO concentration level no greater than 100 ppm with the concentration of NOx (expressed as NO_2) no greater than 100 ppm while operating on natural gas unless ordered by the Director to conduct a compliance demonstration. For tuning each unit while operating using diesel, the CO concentration level shall not exceed 300 ppm with the NOx (NO_2) concentration level being no greater than 120 ppm.

g. Each boiler shall be designed or constructed with a maximum design heat input of 7.9 MMBtu/hr. Compliance with this limit shall be satisfied by limiting the annual heat input to 69,003 MMBtu per year for each unit.

h. The permittee shall conduct the initial tune-up for each unit within twenty-five months after initial startup of the respective unit and subsequent tune-up every 25 months thereafter (40 CFR §63.7515(d)). If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of re-startup of the unit. These tune-ups shall consist of the requirements in Condition 4.1.9 to the limitation stated in item f of this condition.

i. At all times when each affected emission unit is operated on distillate oil or any combination of distillate oil and natural gas, the unit shall not exhibit visible emissions greater than 10% opacity on a six-minute block average. Compliance shall be verified in accordance with Condition 4.2.5 of this permit.
[45CSR§2-3.1]

j. These boilers are excluded from the standards of 45CSR§2-4.1 and 45CSR§10-3.3.6 due to this heat input limit.
[45CSR§2-11.1 and 45CSR§10-10.1]

[45CSR13, R13-3186, 6.1.3]

4.1.5. The following conditions and requirements are specific to Boilers L-36S and L-37S:

a. Each boiler shall be fired with "pipeline quality natural gas" at all times except when conducting periodic testing, and readiness checks of the boilers' ability to fire on liquid fuel (distillate oil); during periods of natural gas curtailment; or gas supply emergencies. The duration of such periodic testing and/or readiness check shall not exceed more than 48 hours per year for each boiler. This distillate oil-fired operation shall be conducted with oil that has a sulfur content of no greater than 15 ppm.

b. NOx emissions from each unit shall not exceed 0.48 pounds per hour during natural gas firing and 0.59 pounds per hour during diesel firing.

c. CO emissions from each unit shall not exceed 0.29 pounds per hour during natural gas firing and 0.90 pounds per hour during diesel firing.

d. Compliance with the above emission limits shall be satisfied by tuning each unit to a CO concentration level no greater than 100 ppm with the concentration of NOx (NO_2) no greater than 100 ppm while operating on natural gas unless ordered by the Director to conduct a compliance demonstration. For tuning each unit while operating using diesel, the CO concentration level shall not exceed 300 ppm with the NO_x (NO_2) concentration level being no greater than 120 ppm.

e. Visible emissions from each respective emission point of these units shall not exhibit visible emissions greater than ten (10) percent (%) opacity in a six-minute block average. **[45CSR§2-3.1]**

f. Each boiler shall be designed or constructed with a maximum design heat input of 3.94 MMBtu/hr and a maximum annual heat input of no greater than 34,506 MMBtu per year for each unit.

g. These units are excluded from the standards of 45CSR§2-4.1 and 45CSR§10-3.3.6 due to above heat input limitations.

[45CSR§2-11.1 and 45CSR§10-10.1]

[45CSR13, R13-3186, 5.1.2]

4.1.6. The following conditions and requirements are specific to Process Heaters Nos. P3-7S, P3-8S, P3-9S, P3-11S, P3-12S, and P3-13S:

a. Each heater shall only be fired with pipeline quality natural gas. This condition satisfies compliance with the limitation of 45CSR§2-3.1. **[45CSR§2A-3.1]**

b. Each heater shall be designed or constructed with a maximum design heat input of 0.5 MMBtu/hr. Compliance with this limit for each heater shall be satisfied by limiting the annual consumption of natural gas to 4.38 MM cubic feet, measured on a 12-month rolling total. If the natural gas usage for all three units is metered through a common meter, then the 12-month rolling total shall not exceed 13.14 MM cubic feet. These heaters are excluded from the standards of 45CSR§2-4.1 and 45CSR§10-3.3.6 due to this heat input limit. **[45CSR§2-11.1 and 45CSR§10-10.1]**

[45CSR13, R13-3186, 5.1.1]

4.1.7. The permittee shall conduct the initial tune-up and subsequent tune-ups for each boiler (Emission Units L-23S through L-32S) in accordance with the following timing and tune-up requirements:

a. The initial tune up for each boiler shall be completed no later than 13 months after initial start-up of each affected unit respectively. **[45CSR34; 40 C.F.R. §63.7510(g) & §63.7490(b)]**

b. Subsequent tune-ups for each boiler shall be completed no later than 13 months after the previous tune-up. **[45CSR34; 40 C.F.R. §63.7515(d), §63.7540(a)(10)]**

c. Each tune-up shall be conducted in accordance with Condition 4.1.9. **[45CSR34; 40 C.F.R. §63.7515(d) & §63.7540]**

[45CSR13, R13-3186, 4.1.2]

4.1.8. The permittee shall conduct the initial tune-up and subsequent tune-ups for these boilers and heaters in accordance with the following timing and tune-up requirements:

a. The initial tune up for Boilers L-36S and L-37S; and Heater Nos. P3-7S, P3-8S, P3-9S, P3-11S, P3-12S, and P3-13S shall be completed no later than 61 months after initial start-up of each affected unit respectively. **[45CSR34; 40 C.F.R. §63.7510(g) & §63.7490(b)]**

b. Subsequent tune-ups for Boilers L-36S and L-37S; Heaters Nos. P3-7S, P3-8S, P3-9S, P3-11S, P3-12S, and P3-13S shall be completed no later than 61 months after the previous tune-up. **[45CSR34; 40 C.F.R. §63.7515(d) & §63.7540(a)(12)]**

c. Each tune shall be conducted in accordance with Condition 4.1.9. **[45CSR34; 40 C.F.R. §63.7515(d) & §63.7540(a)(12)]**

[45CSR13, R13-3186, 5.1.3]

4.1.9. Each tune-up as required within the permit shall be performed in accordance with the following:

i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (permittee may delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;

ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown);

iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications the optimization of NOx emissions needs to be consistent with the manufacturer’s NOx concentration setting point unless otherwise stated in this permit;

v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.

[45CSR13, R13-3186, 8.1.1; 45CSR34; 40 C.F.R. §63.7500(a)(1), §63.7505(a), §63.7510(g), §63.7515(d), §63.7540(a)(10), and Table 3 to Subpart DDDDD of Part 63—Work Practice Standards]

4.1.10. The boilers (Emission Units L-23S through L-32S, L-36S and L-37S) may be fired with the diesel meeting the requirement of condition 7.1.11, which satisfies compliance with the sulfur content limit in item d of Condition 4.1.3 and item a of Condition 4.1.5.
[45CSR13, R13-3186, 4.1.4, 5.1.5; 40 C.F.R. §60.42c(d), 45CSR16 and 45CSR§10-3.3.6 (for L-23S through L-32S)]

4.1.11. The following conditions and requirements are specific to Process Heaters Nos. P4-5S and P4-6S:

a. NO_x emissions from each heater shall not exceed 0.26 lb/hr on a 3-hour average basis nor 2.24 tons per year on a 12-month rolling total.

b. CO emissions from each heater shall not exceed 0.43 lb/hr on a 3-hour average basis nor 3.75 tons per year on a 12-month rolling total.

c. Each heater shall only be fired with pipeline quality natural gas. This condition satisfies compliance with the limitation of 45CSR§2-3.1.
[45CSR§2A-3.1]

d. Each heater shall be designed or constructed with a maximum design heat input of 10.2 MMBtu/hr. Compliance with this limit for each heater shall be satisfied by limiting the annual consumption of natural gas to 178.8 MM cubic feet, measured on a 12-month rolling total. If the natural gas usage for the two units is metered through a common meter, then the 12-month rolling total shall not exceed 357.6 MM cubic feet.

e. Each process heater shall be tuned up in accordance with Condition 4.1.9 within 12-months after initial startup and annually thereafter.
[40 C.F.R. §63.7500(a)(1), Row 3 of Table 3 to Subpart DDDDD of Part 63-Work Practice Standards, 45CSR34]

f. Each process heater shall be equipped and maintained with low NO_x burners.

[45CSR13, R13-3186, 7.1.1]

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

> For Type ‘b’ fuel burning units, the product of 0.09 and the total design heat inputs for such units in million B.T.U.’s per hour, provided however that no more than 600 pounds per hour of particulate matter shall be discharged into the open air from all such units.

Condition 4.1.11.c satisfies compliance with the limitations of 45CSR**§**2-4.1.2.

[45CSR§§2-4.1 and 4.1.2; 45CSR§2-8.4.2 and 45CSR§2A-3.1.a][P4-5S, P4-6S]

4.1.13. Maximum Allowable Emission Rates for Similar Units in Priority III Regions except Region IV. -- No person shall cause, suffer, allow or permit the discharge of sulfur dioxide into the open air from all stacks located at one plant, measured in terms of pounds per hour, in excess of the amount determined as follows:

3.3.6. For Type ‘b’, and Type ‘c’ fuel burning units, the product of 3.2 and the total design heat inputs for such units discharging through those stacks in million BTU’s per hour.

Condition 4.1.11.c satisfies compliance with the limitations of 45CSR§10-3.3.6.

[45CSR§§10-3.3 and 3.3.6; 45CSR§10-10.3, and 45CSR§10A-3.1.b][P4-5S, P4-6S]

4.2. Monitoring Requirements

4.2.1. For each month, the permittee shall record the amount of fuel by type (natural gas and distillate oil) consumed by boilers L-12S, L-33S, L-34S and L-35S. Using the monthly fuel records, the permittee shall determine the total heat input for the previous 12 months at the end of each calendar month for the purpose of demonstrating compliance with Conditions 4.1.1.f and 4.1.4.g. Such records shall be maintained in accordance with Condition 3.4.2 of this permit.

[45CSR13, R13-3186, 6.2.1]

4.2.2. The permittee shall monitor and record the amount and type of fuel consumed by each boiler L-36S and L-37S and process heater P3-7S, P3-8S, P3-9S, P3-11S, P3-12S, P3-13S, P4-5S and P4-6S individually or collectively through a common meter on a monthly basis. With these records, the permittee shall calculate the total heat energy inputted into each unit and the 12-month rolling total for each unit. Such records shall be maintained in accordance with Condition 3.4.2.
[45CSR13, R13-3186, 5.2.1 and 7.2.1]

4.2.3. For the purpose of demonstrating compliance with periodic testing, and readiness checks limitation of Conditions 4.1.1.a, 4.1.3.a, 4.1.4.a, and 4.1.5.a. The permittee shall record the length of time and date that periodic testing, and readiness checks of the liquid fuel delivery system is conducted for each boiler (i.e. when the boiler is operating on distillate oil for readiness checks) as allowed in Conditions 4.1.1.a, 4.1.3.a, 4.1.4.a and 4.1.5.a of this permit. Such records shall be maintained in accordance with Condition 3.4.2.
[45CSR13, R13-3186, 4.2.2, 5.2.2, 6.2.2]

4.2.4. For each month, the permittee shall record the amount of fuel by type (natural gas and diesel) consumed by the boilers identified as L-23S through L-32S and shall calculate the combined total heat input for boilers on a rolling 12 month total. In lieu of monthly diesel fuel usage records, records of distillate oil (diesel) delivered to the facility must be kept, which include the date and quantity delivered. Such records shall be maintained in accordance with Condition 3.4.2 of this permit.
[45CSR13, R13-3186, 4.2.1; 45CSR16, 40 C.F.R. §60.48c(g)(2), 45CSR§2-8.3.3, and 45CSR§2A-7.1.a.1; 40 C.F.R. §63.7540(a)(10)(vi)(c), 45CSR34]

4.2.5. When any boiler covered by this permit is operated using any amount of distillate oil (diesel) for more than 30 consecutive operating days, the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping of the corresponding emission point of the associated boiler that is subject to the visible emission standard of Conditions 4.1.1.e, 4.1.3.f and 4.1.4.i after the 30th consecutive operating day and no later than 45 consecutive days. Once the boiler is switched back to 100% natural gas, the counting of 30 consecutive operating days shall reset to zero and not resume counting until the unit begins to consume distillate oil (diesel) again.

The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40 CFR Part 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted at least once every forty-five (45) days when the boiler is being fired with distillate oil. These checks shall be performed at each source (stack, transfer point, fugitive

emission source, etc.) for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

If visible emissions are present at a source(s) for three (3) consecutive checks, the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of METHOD 9 as soon as practicable, but within seventy-two (72) hours of the final visual emission check. A METHOD 9 observation at a source(s) restarts the count of the number of consecutive readings with the presence of visible emissions.
[45CSR13, R13-3186, 8.2.1]

4.3. Testing Requirements

4.3.1. None.

4.4. Recordkeeping Requirements

4.4.1. The permittee shall maintain records of all monitoring data required by Condition 4.2.5 documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6 - 10 mph NE wind) during the visual emission check(s). An example form is supplied as ATTACHMENT 1. Should a visible emission observation be required to be performed per the requirements specified in METHOD 9, the data records of each observation shall be maintained per the requirements of METHOD 9. For an emission unit out of service during the normal monthly evaluation, the record of observation may note "out of service". Such records shall be maintained in accordance with Condition 3.4.2.
[45CSR13, R13-3186, 8.3.1]

4.4.2. For the purpose of ensuring that the boilers covered by Conditions 4.1.1 and 4.1.4 are using "pipeline quality natural gas", the permittee shall have a current, valid purchase contract, tariff sheet or transportation contract or fuel records for the natural gas used that indicates the sulfur content meets the standard of "pipeline quality natural gas" as defined in 45 CSR §10A-2.7. Such records shall be maintained in accordance with Condition 3.4.2.
[45CSR13, R13-3186, 6.3.4]

4.4.3. The permittee shall keep the following records in accordance with 40CFR§63.7555 of each tune-up. This includes but not limited to the following information during the tune up as required in Condition 4.1.9 and 40 CFR §63.7540:

a. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater. If concentrations of NO_x were taken during the tune-up of the unit, record of such measurements shall be included;

b. A description of any corrective actions taken as a part of the tune-up.

[45CSR13, R13-3186, 8.3.2; 40 C.F.R. §§63.7540(a)(10)(vi) and 63.7555; 45CSR34] *(Boilers L-12S, L-23S through L-37S, Heaters P3-7S through P3-13S, P4-5S, P4-6S)*

4.4.4. The permittee shall maintain the following records in accordance with Condition 3.4.2 of this permit:

a. The name of the diesel supplier;

b. A statement from the diesel supplier that the fuel complies with the specification under the definition of distillate oil in 40CFR§60.41c; and

c. Sulfur content or maximum sulfur content of the diesel supplied.

[45CSR13, R13-3186, 4.4.4; 40 C.F.R. §60.48c(f)(1), 45CSR16, 45CSR§10-8.3.1][L-23S through L-32S]

4.4.5. The owner or operator shall maintain records of the operating schedule and the quantity and quality of fuel consumed in each fuel burning unit in a manner to be established by the Secretary. Such records are to be maintained on-site and made available to the Secretary upon request.

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

[45CSR§2-8.3.3 and 45CSR§2A-7.1.a.1][P4-5S, P4-6S]

4.4.6. § 60.48c Reporting and recordkeeping requirements.

(g)(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in § 60.48c(f) to demonstrate compliance with the SO_2 standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

[40 C.F.R. §60.48c(g)(2), 45CSR16][P4-5S, P4-6S]

4.5. Reporting Requirements

4.5.1. Any exceedance(s) of the allowable visible emission requirement for any emission source discovered during observations using 40 CFR Part 60, Appendix A, Method 9 must be reported in writing to the Director as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the exceedance(s), and any corrective measures taken or planned. Such notification shall be submitted in accordance with Condition 3.5.1. of this permit.
[45CSR13, R13-3186, 8.4.2]

4.5.2. The permittee shall submit a "Notification of Compliance Status" for Boilers L-33S, L-34S, 35S; Boilers L-36S, L-37S and Process Heaters Nos. P3-7S, P3-8S, P3-9S, P3-11S, P3-12S, P3-13S, P4-5S and P4-6S to the Director before the close of business on the sixtieth (60^{th}) day after completion of the initial compliance demonstration as required in Conditions 4.1.4.h, 4.1.8. and 4.1.11.e. Such "Notification of Compliance Status" shall be in accordance with 40 CFR §63.9(h)(2)(ii) and contain the information specified in 40 CFR §§63.7545(e)(1) and (8), which includes a statement that the initial tune-up for each boiler and heater was completed.
[45CSR13, R13-3186, 5.4.1, 6.4.1 and 7.4.1; 40 C.F.R. §63.7545(e); 45CSR34]

4.5.3. The permittee shall submit annual, biennial (once every 2-years), and 5 year "Compliance Reports" to the Director for boilers and heaters covered under this permit with the first report being submitted by no later

than January 31, following the initial tune-up of the unit, and subsequent reports are due based on the frequency of the required tune-up (annually for all units at Plants 1 and IV, biennially for all units at Plant 2, and every 5 years for all units at Plant 3) from thereafter. Such reports shall contain the information specified in 40 CFR §§63.7550(c)(5)(i) through (iii), (xiv), and (xvii) or as required in the applicable template located at https://www.epa.gov/electronic-reporting-air-emissions/cedri#list which are:

a. Permittee and facility name, and address;

b. Process unit information, emission limitations, and operating limitations;

c. Date of report and beginning and ending dates of the reporting period;

d. Include the date of the most recent tune-up for the boiler; and

e. Include the date of the most recent burner inspection if it was not done within the annual, biennial or 5 year period and was delayed until the next scheduled or unscheduled unit shutdown.

f. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

The permittee must submit this report electronically (upload) using CEDRI that is accessed through the EPA's Center Data Exchange (CDX) at https://cdx.epa.gov/.

[45CSR13, R13-3186, 8.4.1 and 40 C.F.R. §§63.7550(b), (b)(1), (c)(1), & (c)(5)(i) though (iii**), (xiv), and (xvii); 45CSR34]**

4.5.4. If you operate a unit designed to burn natural gas, refinery gas, or other gas 1 fuels that is subject to this subpart, and you intend to use a fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart of this part, part 60, 61, or 65, or other gas 1 fuel to fire the affected unit during a period of natural gas curtailment or supply interruption, as defined in §63.7575, you must submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in §63.7575. The notification must include the information specified in paragraphs (f)(1) through (5) of this section.

(1) Company name and address.

(2) Identification of the affected unit.

(3) Reason you are unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began.

(4) Type of alternative fuel that you intend to use.

(5) Dates when the alternative fuel use is expected to begin and end.

[40 C.F.R. §63.7545(f) and 45CSR34]

4.5.5. The permittee shall include with the facility's Title V Compliance Report a compliance report for the boilers at Plant 1 (Emission Units L-23S through L-32S) with regards to complying with the sulfur limit (item d of Condition 4.1.3) Subpart Dc to Part 60. Such reports shall cover the six month period of January to June and July to December for the diesel fuel consumed by the boilers or delivered to the facility during the reporting period. These reports shall include the records required in Condition 3.4.5 and a certified statement signed

by the permittee that the records of fuel supplier certifications submitted represent all of the diesel combusted during the reporting period.
[45CSR13, R13-3186, 4.5.1; 45CSR16 and 40CFR§§60.48c(d), (e)(11), (f)(1) and (j)]

4.6. Compliance Plan

4.6.1. None.

5.0. Research Complex Requirements [Emission Units Group ID 00P]

5.1. Limitations and Standards

5.1.1. Emission to the atmosphere from the Research Complex shall not exceed the following limits:

Building ID	Emission Point ID	Pollutant	Annual (TPY)
394	P-23E, P-24E	Total VOC	1
		Total HAPs	0.25
		PM	0.003
		NOx	0.001
		CO	0.001
		Lead compounds	0.001
396	P-37E, P-38E, P-39E	Total VOC	1.6
		Total HAPs	1.5
400	P-43E, P-44E, P-45E, P-46E, P-47E, P-48E	Total VOC	1
		Total HAPs	0.5
401	P-49E, P-50E, P-51E	Total VOC	1.5
		Total HAPs	1
403	P-35E	Total VOC	1
		Total HAPs	1
404	P-33E, P-34E	Total VOC	1
		Total HAPs	0.5
		PM	0.01
		NOx	0.001
		CO	0.001
		Lead compounds	0.001
405	P-25E, P-26E, P-27E, P-28E, P-29E	Total VOC	1
		Total HAPs	1
406	P-31E	Total VOC	0.5
		Total HAPs	0.25

[45CSR13, R13-1771, A.1]

5.1.2. Emissions of all mineral acids from the Research Complex (Emission Points P-23E, P-25E, P-26E, P-28E, P-29E, P-34E) shall be less than 0.1 lb/hr for any Emission Point and less than 100 lb/year aggregate for all mineral acids sources in order to be exempt from requirements of 45CSR§7-4.2 (per 45CSR§7-10.6).
[45CSR13, R13-1771, A.2]

5.1.3. Total emissions of Methylene Chloride from the Research Complex (Buildings 394, 404, 405, 406; Emission Points P-23E, P-24E, P-33E, P-34E, P-25E, P-26E, P-27E, P-28E, P-29E, P-31E) and Building 21 (Laboratory and small scale nitroglycerin sparging operations, Emission Point P-12E), shall not exceed 922 lb/yr.
[45CSR13, R13-1771, A.3]

5.1.4. If the Research Complex emits any Hazardous Air Pollutant (HAP) or Toxic Air Pollutant (TAP) from the Research Complex other than listed in Attachment 2, the permittee shall provide written notification to the Director of the Division of Air Quality within fifteen (15) days after knowledge of such emissions. This written notification shall include the potential to emit (in lb/hr and TPY) for each of these HAP species. Unless the Director determines these emissions to be insignificant, the Company shall submit a compliance program for control of such emissions within sixty (60) days of the date of notification. Upon a determination by the Director that the proposed compliance program represents BAT, the Director shall, in his or her discretion, consider such program for a consent order and shall determine the conditions to be met for approval and entry of such consent order.
[45CSR13, R13-1771, A.4]

5.1.5. The pertinent sections of 45CSR7 applicable to this facility include, but are not limited to, the following:

No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.
[45CSR§7-3.1]

The provisions of 45CSR§7-3.1 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.
[45CSR§7-3.2]

No person shall cause, suffer, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to 45CSR§7-5.1 is required to have a full enclosure and be equipped with a particulate matter control device.
[45CSR§7-3.7]

No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of 45CSR7.
[45CSR§7-4.1]

Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity give in Table 45-7B found at the end of this rule.
[45CSR§7-4.2]

Any stack serving any process source operation or air pollution control equipment on any process source operation shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures.
[45CSR§7-4.12]

No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and

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

The owner or operator of a plant shall maintain particulate matter control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures. Good operating practices shall be implemented and when necessary particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment.
[45CSR§7-5.2]

At such reasonable times as the Director may designate, the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment, and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.
[45CSR§7-8.1]

The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions.
[45CSR§7-8.2]

[45CSR13, R13-1771, B.6]

5.2. Monitoring Requirements

5.2.1. Compliance with Section 3 of 45CSR7 (Requirement 5.1.5 of this Permit) shall be determined by conducting visual emission observations in accordance with Method 22 of 40 CFR 60, Appendix A for the Emission Points subject to 45CSR7, and units emitting directly into the open air from points other than stack outlet (including visible fugitive dust emissions that leave the plant site boundaries).

Visual emission observations shall be conducted monthly during periods of facility operation 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, the permittee shall conduct an Opacity Evaluation as outlined in 45CSR§7A-2.1.a, b, within 24 hour period unless the permittee can demonstrate a valid reason that the time frame should be extended. 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 with no visible emissions being observed.

Anytime when not in compliance with the opacity limit per 45CSR§7-3.1 for any emission point, reporting as per Requirement 5.5.1 shall be initiated, and for this emission point, Method 22 checks shall revert to a weekly frequency for a minimum of 4 consecutive weeks. If in compliance, then monthly Method 22 checks shall be conducted.

Compliance with this Requirement will assure compliance with requirement 3.3.4.f.
[45CSR§30-5.1.c]

5.3. Testing Requirements

5.3.1. If testing is required by Director to determine compliance with the emission limitations as set forth in Requirements 5.1.1, 5.1.2, 5.1.3 and 5.1.4 above, such test(s) shall be conducted in accordance with Requirements 3.3.1 through 3.3.4 contained herein.
[45CSR13, R13-1771, B.5 and 45CSR§30-5.1.c]

5.4. Recordkeeping Requirements

5.4.1. To determine compliance with the emission limits set forth in Requirement 5.1.1 above, the permittee shall maintain monthly and yearly records of materials purchased for each building, and perform monthly emission calculations based on mass balance for each building. Compliance with the annual emission limits for each building shall be demonstrated using a Rolling Yearly Total (Attachment B of the Permit R13-1771B): for each year and for each pollutant (VOC(s), NO_x, CO and PM) record Pounds and Tons Emitted on a monthly basis. Rolling Yearly Total means the sum of emissions of any pollutant emitted at any given time for the previous twelve (12) consecutive calendar months. Said records shall be maintained on-site for a period of no less than five (5) years and shall be certified and made available to the Director or his/her duly authorized representative upon request.
[45CSR13, R13-1771, B.1]

5.4.2. In order to demonstrate compliance with the Requirement 5.1.2, the permittee shall maintain monthly and yearly records. Compliance with hourly emission rate shall be demonstrated based on monthly calculations of mineral acids emissions for each Emission Point listed. Compliance with the annual emission limit shall be demonstrated using a Rolling Yearly Total. Rolling Yearly Total means the sum of all mineral acids generated by all the Emission Points listed at any given time for the previous twelve (12) consecutive calendar months. Said records shall be maintained on-site for a period of no less than five (5) years and shall be certified and made available to the Director or his/her duly authorized representative upon request.
[45CSR13, R13-1771, B.2]

5.4.3. In order to demonstrate compliance with the Requirement 5.1.3, the permittee shall maintain monthly and yearly records of methylene chloride emissions for all the Research Complex buildings. Compliance with the annual emission limit shall be demonstrated using a Rolling Yearly Total. Rolling Yearly Total means the sum of total methylene chloride emissions generated by all the Research Complex buildings at any given time for the previous twelve (12) consecutive calendar months. Said records shall be maintained on-site for a period of no less than five (5) years and shall be certified and made available to the Director or his/her duly authorized representative upon request.
[45CSR13, R13-1771, B.3]

5.4.4. In order to demonstrate compliance with the Requirement 5.1.4, the permittee shall maintain yearly records of all the HAPs emitted at the Research Complex (except lead compounds and methylene chloride as noted in Requirements 5.4.1 and 5.4.3). Compliance with the Table 45-13A / 45CSR27 Emission Rate Threshold shall be demonstrated using a Rolling Yearly Total. Rolling Yearly Total means the sum of total emissions of each individual HAP generated by the Research Complex at any given time for the previous twelve (12) consecutive calendar months. Said records shall be maintained on-site for a period of no less than five (5) years and shall be certified and made available to the Director or his/her duly authorized representative upon request.
[45CSR13, R13-1771, B.4]

5.4.5. The permittee shall conduct an annual preventative maintenance inspection / cleaning / replacement / refurbishment of the bags, filters, bag connection, and dust hoppers, as appropriate, of the baghouses and HEPA Filter Systems (Source ID No. P-8C) in order to ensure proper operation of the control devices. Records shall be maintained on site stating the date and time of each control device annual preventative

maintenance activity, the results and all corrective actions taken.
[45CSR§30-5.1.c]

5.4.6. A record of each visible emission observation and opacity evaluation per Requirement 5.2.1 shall be maintained on site and shall be made available to the Director or his/her duly authorized representative upon request. Said records shall include, the date, time, name of emission unit, the applicable visible emission requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.
[45CSR§30-5.1.c.]

5.5. Reporting Requirements

5.5.1. Upon observing any visible emissions during an Opacity Evaluation as per Requirement 5.2.1 in excess of twenty percent (20%) opacity (but less than forty percent (40%) opacity) for any period or periods aggregating more than five (5) minutes in any sixty (60) minute period, or upon observing any visible emissions in excess of forty percent (40%) opacity, the Company shall submit a written report (including day and time of the observation, observation results, and corrective actions taken (if any)), certified by a responsible official, to the Director of the Division of Air Quality within ten (10) days after taking said reading.
[45CSR§30-5.1.c.]

5.6. Compliance Plan

5.6.1. None.

6.0. TPEG Polymer Manufacture Requirements [Emission Units Group ID 00T]

6.1. Limitations and Standards

6.1.1. Maximum production shall not exceed the following:

Product	lbs/batch	tons/year
Terathane/Polyethylene Glycol Block Copolymer	3001	250
Tetrahydrofuran (by product)	2998	250

[45CSR13, R13-2301, A.1]

6.1.2. Maximum emissions shall not exceed the following:

Emission Point ID	Control Device ID	Emission Source Name and ID	Pollutant	lb/hr	lb/year
T-1E	T-1C	Reactor T-1S Reactor Distillate Receiver T-2S Separator T-3S Wiped Film Evaporator T-4S Waste Acid Water Tank T-5S	Tetrahydrofuran	1.25	1700
T-5E	None	THF Drum Filling Station T-6S	Tetrahydrofuran	2.5	800

[45CSR13, R13-2301, A.2]

6.1.3. The scrubber (T-1C) shall be maintained, and operated in accordance with the information submitted in Permit Application No. R13-2301. The principal operating conditions which shall be adhered to include, but are not limited to the following:

Nitrogen Purge Rate (CFM)	Liquor Flow Rate to Scrubber (gallons/minute)
17	24

[45CSR13, R13-2301, A.3]

6.2. Monitoring Requirements

6.2.1. None.

6.3. Testing Requirements

6.3.1. If testing is required by Director to determine compliance with the maximum allowable emission limits established in Requirement 6.1.2, the facility shall conduct performance tests of the scrubber (T-1C) in accordance with Requirements 3.3.1 through 3.3.4 contained herein.
[45CSR13, R13-2301, C.4 and 45CSR§30-5.1.c]

6.4. Recordkeeping Requirements

6.4.1. For the purpose of determining compliance with the maximum production rates set forth in Requirement 6.1.1, the facility shall maintain monthly and annual records of production. Records shall be maintained on site for a period of five (5) years. Certified copies of these records shall be made available to the Director or his duly authorized representative upon request.
[45CSR13, R13-2301, B.2]

6.4.2. For the purpose of determining compliance with the maximum allowable emission limits for Emission Point T-5E established in Requirement 6.1.2, the facility shall maintain monthly and annual records of the number of drums filled and the cumulative time required for drum filling at the tetrahydrofuran drum filling station (T-6S), and perform monthly and annual emission calculations. Compliance with the hourly emission rates shall be determined using the average hourly emission rate for each month. Compliance with the annual emission rates shall be determined using a rolling yearly total. A rolling yearly total shall mean the total emission rates emitted at any given time for the previous twelve (12) consecutive calendar months.
[45CSR13, R13-2301, B.3 and 45CSR§30-5.1.c]

6.4.3. For the purpose of determining compliance with the maximum allowable emission limits for Emission Point T-1E established in Requirement 6.1.2, the facility shall maintain monthly and annual records, and perform monthly and annual emission calculations. Compliance with the hourly emission rates shall be determined using the average hourly emission rate for each month based on a test derived emission factor and reaction time (recorded on a daily basis). Compliance with the annual emission rates shall be determined using a rolling yearly total. A rolling yearly total shall mean the total emission rates emitted at any given time for the previous twelve (12) consecutive calendar months.
[45CSR§30-5.1.c]

6.4.4. Malfunctions of the scrubber (T-1C) must be documented in writing and records maintained at the facility for a period of five (5) years. At a minimum, the following information must be documented for each malfunction:

a. The equipment involved and associated cause of the malfunction.
b. Steps taken to correct the malfunction.
c. Steps taken to minimize emissions during the malfunction.
d. The duration of the malfunction.
e. The estimated increase in emissions during the malfunction.
f. Any changes or modifications to equipment or procedures that would help prevent future recurrence of the malfunction.

[45CSR13, R13-2301, B.5]

6.4.5. For purpose of demonstrating compliance with the Requirement 6.1.3. the permittee shall keep records of the scrubber principal operating conditions (Nitrogen Purge Rate and Liquor Flow Rate to Scrubber). **[45CSR§30-5.1.c]**

6.5. Reporting Requirements

6.5.1. None.

6.6. Compliance Plan

6.6.1. None.

7.0 Emergency Engines [emission point ID(s): EG-1 through EG-19]

7.1. Limitations and Standards

7.1.1. The permittee is authorized to operate Engines EG-1 through EG-10 with following emission limits in accordance with all terms and conditions of the 45CSR13 G60-D Class II General Permit:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual (TPY)
EG-1 Building 372 Onan DGEA 167.6 HP (1998)	Nitrogen Oxides	5.20	1.30
	Carbon Monoxide	1.12	0.28
	Volatile Organic Compounds	0.41	0.10
	Sulfur Dioxide	0.34	0.09
	Particulate Matter-10	0.37	0.09
EG-2 Building 344 Cummins-Onan 400DFEB 600 HP (1993)	Nitrogen Oxides	18.60	4.65
	Carbon Monoxide	4.01	1.00
	Volatile Organic Compounds	1.48	0.37
	Sulfur Dioxide	1.23	0.31
	Particulate Matter-10	1.32	0.33
EG-3 Building 415 Kohler 241.4 HP (1999)	Nitrogen Oxides	7.48	1.87
	Carbon Monoxide	1.61	0.40
	Volatile Organic Compounds	0.60	0.15
	Sulfur Dioxide	0.49	0.12
	Particulate Matter-10	0.53	0.13
EG-4 Building 440 Kohler 300ROEZD71 490 HP (1995)	Nitrogen Oxides	15.19	3.80
	Carbon Monoxide	3.27	0.82
	Volatile Organic Compounds	1.21	0.30
	Sulfur Dioxide	1.00	0.25
	Particulate Matter-10	1.08	0.27
EG-5 Building 440 Kohler 300ROEZD72 490 HP (1998)	Nitrogen Oxides	15.19	3.80
	Carbon Monoxide	3.27	0.82
	Volatile Organic Compounds	1.21	0.30
	Sulfur Dioxide	1.00	0.25
	Particulate Matter-10	1.08	0.27

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual (TPY)
EG-6 Building 449 Kohler 800REOZM 1207 HP (2004)	Nitrogen Oxides	28.97	7.24
	Carbon Monoxide	6.64	1.66
	Volatile Organic Compounds	0.85	0.21
	Sulfur Dioxide	0.49	0.12
	Particulate Matter-10	0.84	0.21
EG-7 Building 440 Kohler 500REOZVBIC2 C2 (Tier 2) 757 HP (2008)	Nitrogen Oxides	8.01	2.0
	Carbon Monoxide	4.34	1.08
	Volatile Organic Compounds	0.53	0.13
	Sulfur Dioxide	0.31	0.08
	Particulate Matter-10	0.25	0.06
EG-8 Building 8501 Stamford D5487/1 90 HP	Nitrogen Oxides	2.79	0.70
	Carbon Monoxide	0.60	0.15
	Volatile Organic Compounds	0.22	0.06
	Sulfur Dioxide	0.18	0.05
	Particulate Matter-10	0.20	0.05
EG-9 Building 449 MTU 1250RXC5DT2 Tier 2 1676.25 HP (2010)	Nitrogen Oxides	17.74	4.43
	Carbon Monoxide	9.61	2.40
	Volatile Organic Compounds	1.18	0.30
	Sulfur Dioxide	0.68	0.17
	Particulate Matter-10	0.55	0.14
EG-10 Building 385 Caterpillar D100-4 Tier 2 157.5 HP (2006)	Nitrogen Oxides	1.70	0.43
	Carbon Monoxide	1.28	0.32
	Volatile Organic Compounds	0.39	0.10
	Sulfur Dioxide	0.32	0.08
	Particulate Matter-10	0.55	0.02
Total Emissions From Generators EG-1 through EG-10	Nitrogen Oxides	120.87	30.22
	Carbon Monoxide	35.68	8.92
	Volatile Organic Compounds	8.08	2.02
	Sulfur Dioxide	6.04	1.51
	Particulate Matter-10	6.77	1.69

[45CSR13, G60-C020 General Permit Registration, Emission Limitations and G60-D, 5.1.2]

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual (TPY)
EG-11 Building 2006 CAT 3456 TA 670.5 HP (2012)	Nitrogen Oxides	16.09	4.02
	Carbon Monoxide	3.69	0.92
	Volatile Organic Compounds	0.47	0.12
EG-12 Building 600 MTU Detroit Diesel 3,352 HP (2012)	Nitrogen Oxides	39.50	9.88
	Carbon Monoxide	5.19	1.30
	Volatile Organic Compounds	0.66	0.17
Total Emissions From Generators EG-11and EG-12	Nitrogen Oxides	55.59	13.9
	Carbon Monoxide	8.88	2.22
	Volatile Organic Compounds	2.60	0.29

[45CSR13, G60-C066 General Permit Registration, Emission Limitations and G60-D, 5.1.2]

7.1.2. **Fuel Oil Requirements.** The maximum sulfur content of the diesel fuel to be fired in the engines shall not exceed 0.05 percent weight. The minimum Cetane Index: 40 or Maximum Aromatic Content of: 35% by Volume.
[EG-1 through 10] [45CSR13, G60-C020, General Permit Registration and G60-D]

7.1.3. *Maximum Hourly Limitation.* The maximum hours of operation for any registered emergency generator listed in the General Permit Registration application shall not exceed 500 hours per year. Compliance with the Maximum Yearly Hourly Operation Limitation shall be determined using a twelve-month rolling total. A twelve-month rolling total shall mean the sum of the hours of operation at any given time during the previous twelve consecutive calendar months.
[EG-1 through 12][45CSR13, G60-C020 and G60-C066 General Permit Registrations, & G60-D, 5.1.3]

7.1.4. The applicable emergency generator(s) shall be operated and maintained as follows:

a. In accordance with the manufacturer's recommendations and specifications or in accordance with a site specific maintenance plan; and,

b. In a manner consistent with good operating practices.

[EG-1 through 12][45CSR13, G60-C020 & G60-C066 General Permit Registrations, & G60-D, 5.1.4]

7.1.5. **40 C.F.R. §63.6590 What parts of my plant does this subpart cover?**

(c) *Stationary RICE subject to Regulations under 40 C.F.R. Part 60.* An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 C.F.R. part 60 subpart IIII, for compression ignition engines. No further requirements apply for such engines under this part.

(6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

[EG-10, 15, 16, 18] [45CSR34, 40 C.F.R. §63.6590(c); 45CSR13, G60-C020, General Permit Registration & G60-D, 5.1.6]

§63.6600 What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

(c) If you own or operate any of the following stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the emission limitations in Tables 1a, 2a, 2c, and 2d to this subpart or operating limitations in Tables 1b and 2b to this subpart: an existing 2SLB stationary RICE; an existing 4SLB stationary RICE; a stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; an emergency stationary RICE; or a limited use stationary RICE. **[EG-2, 6, 7, 9, 11, 12, 13, 14, 17][45CSR34, 40 C.F.R. §63.6600(c)]**

40 C.F.R. § 63.6602 What emission limitations and other requirements must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?

If you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations and other requirements in Table 2c to this subpart which apply to you. Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

Table 2c to Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE ≤500 HP Located at a Major Source of HAP Emissions

As stated in 40 C.F.R. §§63.6600, 63.6602, and 63.6640, you must comply with the following requirements for existing compression ignition stationary RICE located at a major source of HAP emissions and existing spark ignition stationary RICE ≤500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Emergency stationary CI RICE and black start stationary CI RICE.[1]	a. Change oil and filter every 500 hours of operation or within 1 year + 30 days of the previous change, whichever comes first;[2] b. Inspect air cleaner every 1,000 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary.[3]	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[3]

[1]If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

[2]Sources have the option to utilize an oil analysis program as described in 40 C.F.R. §63.6625(i) in order to extend the specified oil change requirement in Table 2c of this subpart.

[3]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[EG-1, 3, 4, 5, 8] [45CSR34, 40 C.F.R. §63.6602 and Table 2c; 45CSR13, G60-C020, General Permit Registration & G60-D, 5.1.6]

7.1.6. Reserved.

7.1.7. **40 C.F.R. § 63.6605 What are my general requirements for complying with this subpart?**

(a) You must be in compliance with the emission limitations, operating limitations and other requirements in this subpart that apply to you at all times except during periods of start-up and shut-down provided that the duration of these periods does not exceed 30 minutes per occurrence. The registrant shall operate the engine in a manner consistent with good air pollution control practices for minimizing emissions at all times, including periods of start-up and shut-down. The emissions from start-up and shut-down shall be included in the twelve (12) month rolling total of emissions. The registrant shall comply with all applicable start-up and shut-down requirements in accordance with 40 CFR Part 60, Subparts IIII and 40 C.F.R. Part 63, Subpart ZZZZ.

(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
[EG-1 through 9, 11, 12, 13, 14, 17][45CSR34; 40 C.F.R. §63.6605 and 45CSR13, G60-C020 and G60-C066 General Permit Registrations & G60-D, 5.1.6 and 5.1.7 for EG-1 through 9, 11, 12]

7.1.8. **40 C.F.R. § 63.6640 How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?**

(a) You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, and Other Requirements

As stated in §63.6640, you must continuously comply with the emissions and operating limitations and work or management practices as required by the following:

For each . . .	Complying with the requirement to	You must demonstrate continuous compliance by . . .
9. Existing emergency and black start stationary RICE ≤500 HP located at a major source of HAP **[EG-1, 3, 4, 5, 8]**	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

(f) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3), is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary RICE in emergency situations.

(2) You may operate your emergency stationary RICE for the purpose specified in paragraph (f)(2)(i) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

(3) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (f)(2) of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[EG-1 through 9, 11, 12, 13, 14, 17][45CSR34, 40 C.F.R. §§63.6640(a), (f) and Table 6; 45CSR13, G60-C020 and G60-C066 General Permit Registrations & G60-D, 5.1.6 for EG-1 through 9, 11 and12]

7.1.9. **§60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?**

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine.
[EG-7, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19]

40 C.F.R. §60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 C.F.R. §1090.305 for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

[EG-7, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19]

40 C.F.R. §60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in §60.4211.

(a) If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.

[EG-7, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19]

40 C.F.R. §60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:

(1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;

(2) Change only those emission-related settings that are permitted by the manufacturer; and

(3) Meet the requirements of 40 CFR part 1068, as they apply to you.

[EG-7, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19]

(b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(a) or §60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section. **[EG-10]**

(1) Purchasing an engine certified to emission standards for the same model year and maximum engine power as described in 40 CFR parts 1039 and 1042, as applicable. The engine must be installed and configured according to the manufacturer's specifications.

(2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.

(3) Keeping records of engine manufacturer data indicating compliance with the standards.

(4) Keeping records of control device vendor data indicating compliance with the standards.

(5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in §60.4212, as applicable.

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner

or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.
[EG-7, 9, 12, 13, 14, 15, 16, 17, 18, 19]

(f) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3), is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) You may operate your emergency stationary ICE for the purpose specified in paragraph (f)(2)(i) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[EG-7, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19]

(g) If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:

(1) If you are an owner or operator of a stationary CI internal combustion engine with maximum engine power less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action. **[EG-15, 19]**

(2) If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. **[EG-10, 16, 18]**

(3) If you are an owner or operator of a stationary CI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards. **[EG-7, 9, 12, 13, 14, 17]**

40 C.F.R. §60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(1) For engines with a maximum engine power less than 37 KW (50 HP):

(ii) The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115 and table 2 to this subpart, for 2008 model year and later engines. **[EG-19]**

(2) For engines with a rated power greater than or equal to 37 KW (50 HP), the Tier 2 or Tier 3 emission standards for new nonroad CI engines for the same rated power as described in 40 CFR part 1039, appendix I, for all pollutants and the smoke standards as specified in 40 CFR 1039.105 beginning in model year 2007. **[EG-7, 9, 13, 14, 15, 16, 17, 18]**

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.

(1) For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power. **[EG-12]**

40 C.F.R. §60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with the emission standards in Table 1 to this subpart. Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the Tier 1 emission standards in 40 CFR part 1042, appendix I. **[EG-10]**

(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. **[EG-7, 9, 12, 13, 14, 15, 16, 17, 18, 19]**

[EG-7, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19] [45CSR16, 40 C.F.R. §§60.4202(a)(1)(ii), (a)(2) and (b)(1), §§60.4205(a) and (b), §60.4206, §60.4207(b), §60.4209(a), §§60.4211(a), (b), (c), (f), (g); 45CSR13, G60-C020 and G60-C066 General Permit Registrations, & G60-D, 5.1.6; 45CSR13, R13-3186, 4.1.3.a through d, 4.1.3.f, 5.1.4.a through d, 5.1.4.f, 7.1.2.a, b, c, d and f]

7.1.10. The following conditions and requirements are specific to generator set identified as EG-13, EG-14, EG-15, EG-16, EG-17, EG-18 and EG-19:

Each generator set is permitted as a compression ignition engine which is operated on diesel. The maximum nameplate power output of the engine shall not be greater than as listed in Table 1.1 of this permit.

[EG-13, 14, 15, 16, 17, 18, 19] [45CSR13, R13-3186, 4.1.3.e, 5.1.4.e, and 7.1.2.e]

7.1.11. Diesel fuel used by each engine for the generator set EG-13, 14, 15, 16, 17, 18 and 19 shall have a maximum sulfur content no greater than 15 ppm (ultra-low sulfur diesel) and with either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent. Diesel meeting the specifications of Nonroad diesel under 40 CFR §1090.305 is equivalent. **[EG-13, 14, 15, 16, 17, 18, 19] [45CSR13, R13-3186, 4.1.4, 5.1.5 and 7.1.2.h; 45CSR16 and 40 C.F.R. §60.4207(b)]**

7.2. Monitoring Requirements

7.2.1. **40 C.F.R. § 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?**

(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

(2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions; stationary RICE **[EG-1, 3, 4, 5, 8]**

(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed. **[EG-1, 3, 4, 5, 8]**

(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply. **[EG-1, 3, 4, 5, 8]**

(i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil and filter change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil and filter in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil and filter. If any of the limits are exceeded, the engine owner or operator must change the oil and filter within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil and filter within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil and filter changes for the engine. The analysis program must be part of the maintenance plan for the engine. **[EG-1, 3, 4, 5, 8]**

[EG-1, 3, 4, 5, 8] [45CSR34; 40 C.F.R. §§63.6625(e), (f), (h), (i) and 45CSR13, G60-C020, General Permit Registration & G60-D, 5.1.6]

7.2.2. For the purpose of demonstrating compliance with the hours of operation limit in 40 C.F.R. §60.4211(f) **(**Condition 7.1.9), the permittee shall record the number of hours each generator set EG-13, 14, 15, 16, 17, 18 and 19 operated for non-emergency situations during the calendar month and the reason for such operation. Such records shall be maintained in accordance with Condition 3.4.2.
[EG-13, 14, 15, 16, 17, 18, 19] [45CSR13, R13-3186, 4.2.3, 5.2.3 and 7.2.2; 45CSR16 and 40 C.F.R. §60.4211(f)]

7.3. Testing Requirements

7.3.1. **§60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?**

Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (e) of this section.

[EG-7, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19] [45CSR16, 40 C.F.R. §60.4212; 45CSR13, G60-C020 and G60-C066 General Permit Registrations, & G60-D, 5.4.1 for EG-7, 9, 10, 12]

7.4. Recordkeeping Requirements

7.4.1. **40 C.F.R. § 63.6655 What records must I keep?**

(a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).

(2) Records of the occurrence and duration (in hours) of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.

(3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).

(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(b) For each CEMS or CPMS, you must keep the records listed in paragraphs (b)(1) through (3) of this section.

(1) Records described in §63.10(b)(2)(vi) through (xi).

(2) Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in §63.8(f)(6)(i), if applicable.

(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

(1) An existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.

(2) An existing stationary emergency RICE.

(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) through (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purpose specified in §63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time and end time of engine operation for these purposes.

(1) An existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.

[EG-1, 3, 4, 5, 8][45CSR34; 40 C.F.R. §§63.6655(a), (b), (d), (e)(1) and (e)(2), (f)(1) and 45CSR13, G60-C020 General Permit Registration & G60-D, 5.3.4]

7.4.2. **§60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?**

(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time. **[EG-19]**

(d) If you own or operate an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates for the purpose-specified in §60.4211(f)(3)(i), you must submit an annual report according to the requirements in paragraphs (d)(1) through (3) of this section.

(1) The report must contain the following information:

(i) Company name and address where the engine is located.

(ii) Date of the report and beginning and ending dates of the reporting period.

(iii) Engine site rating and model year.

(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(v) Reserved.

(vi) Reserved.

(vii) Hours spent for operation for the purposes specified in §60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in §60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*https://cdx.epa.gov/*). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in §60.4. Beginning February 26, 2025, submit annual report electronically according to 40 C.F.R. §60.4214(g)

[EG-7, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19] [45CSR16, 40 C.F.R. §§60.4214(b), (d); 45CSR13, G60-C020 and G60-C066 General Permit Registrations, & G60-D, 5.3.4 for EG-7, 9, 10, 11, 12]

7.4.3. To demonstrate compliance with condition 7.1.3, the registrant shall maintain records of the hours of operation of the emergency generator(s) on a monthly basis.
[EG-1 through 12] [45CSR13, G60-C020 and G60-C066 General Permit Registrations, & G60-D, 5.3.1]

7.4.4. To demonstrate compliance with section 7.1.4, the registrant shall maintain records of the maintenance performed on each emergency generator.
[EG-1 through 12] [45CSR13, G60-C020 and G60-C066 General Permit Registrations, & G60-D, 5.3.2]

7.4.5. All records required by this section shall be maintained in accordance with section 3.5.1 of the general permit (requirement 3.4.2).
[EG-1 through 12] [45CSR13, G60-C020 and G60-C066 General Permit Registrations, & G60-D, 5.3.5]

7.4.6. The permittee shall maintain records of maintenance conducted on the engines for EG-13, 14, 15, 16, 17, 18 and 19 in accordance with Condition 3.4.2.
[EG-13, 14, 15, 16, 17, 18, 19] [45CSR13, R13-3186, 4.4.5, 5.3.1, 7.3.1; 45CSR16 and 40 C.F.R. 60.4214(a)(2)(ii)]

7.4.7. The permittee shall maintain documentation from the manufacturer for EG-13, 14, 15, 16, 17, 18 and 19 that the engine is certified to meet the emission standards and information as required in 40 C.F.R. Parts 90, 1048,

1054, and 1060, as applicable.
[EG-13, 14, 15, 16, 17, 18, 19] [45CSR13, R13-3186, 4.4.6, 5.3.2, 7.3.2; 45CSR16 and 40 C.F.R. 60.4214(a)(2)(iii)]

7.5. Reporting Requirements

7.5.1. **§ 63.6645 What notifications must I submit and when?**

(f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with §63.6590(b), your notification should include the information in §63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).

[EG-6, 7, 9, 11, 12, 13, 14, 17] [45CSR34, 40 C.F.R. §63.6645(f); 45CSR13, G60-C020 and G60-C066 General Permit Registrations, & G60-D, 5.5.1 for EG-6, 7, 9, 11, 12]

7.6. Compliance Plan

7.6.1. None.

ATTACHMENT 1

Record of Visible Emission Observation

Date of Observation: _____

Data Entered by: _____

Reviewed by: _____

Date Reviewed: _____

Describe the General Weather Conditions:

Emission Point ID	Emission Point Description	Time of Observation	Visible Emissions? Yes/No	Consecutive Months of Visual Emissions	Comments

ATTACHMENT 2

Allegany Ballistics Laboratory
R13-1771B 057-00011

CAS No.	HAP	Table 45-13A / Rule 27 Toxic Air Pollutant?	Facility Exceeds 45-13A / Rule 27 Potential Emission Rate Threshold?
75-07-0	Acetaldehyde	No	---
60-35-5	Acetamide	No	---
75-05-8	Acetonitrile	No	---
98-86-2	Acetophenone	No	---
107-13-1	Acrylonitrile	Yes	No
107-05-1	Allyl chloride	Yes	No
62-53-3	Aniline	No	---
1332-21-4	Asbestos	Yes	No
100-44-7	Benzyl chloride	No	---
92-52-4	Biphenyl	No	---
117-81-7	Bis(2-ethylhexyl)phthalate (DOP)	No	---
75-25-2	Bromoform	No	---
75-15-0	Carbon disulfide	No	---
56-23-5	Carbon tetrachloride	Yes	No
79-11-8	Chloroacetic acid	No	---
108-90-7	Chlorobenzene	No	---
67-66-3	Chloroform	Yes	No
98-82-8	Cumene	No	---
84-74-2	Dibutyl phthalate	No	---
106-46-7	Dichlorobenzene-1,4 (p)	No	---
111-42-2	Diethanolamine	No	---
68-12-2	Dimethyl formamide	No	---
131-11-3	Dimethyl phthalate	No	---
51-28-5	Dinitrophenol-2,4	No	---
121-14-2	Dinitrotoluene-2,4	No	---
123-91-1	Dioxane-1,4	No	---
106-89-8	Epichlorohydrin	No	---
140-88-5	Ethyl acrylate	No	---

CAS No.	HAP	Table 45-13A / Rule 27 Toxic Air Pollutant?	Facility Exceeds 45-13A / Rule 27 Potential Emission Rate Threshold?
100-41-4	Ethyl benzene	No	---
51-79-6	Ethyl carbamate (Urethane)	No	---
107-21-1	Ethylene glycol	No	---
151-56-4	Ethylene imine (Aziridine)	No	---
75-21-8	Ethylene oxide	Yes	No
50-00-0	Formaldehyde	Yes	No
822-06-0	Hexamethylene-1,6-diisocyanate (HDI)	No	---
110-54-3	Hexane	No	---
7647-01-0	Hydrochloric acid	No	---
7664-39-3	Hydrofluoric acid	No	---
123-31-9	Hydroquinone	No	---
78-59-1	Isophorone	No	---
108-31-6	Maleic anhydride	No	---
67-56-1	Methanol	No	---
74-83-9	Methyl bromide (Bromomethane)	No	---
74-87-3	Methyl chloride (Chloromethane)	No	---
71-55-6	Methyl chloroform (1,1,1-TCA)	No	---
78-93-3	Methyl ethyl ketone (MEK)	No	---
74-88-4	Methyl iodide (Iodomethane)	No	---
108-10-1	Methyl isobutyl ketone (MIBK)	No	---
80-62-6	Methyl methacrylate	No	---
101-68-8	Methylene diphenyl diisocyanate (MDI)	No	---
91-20-3	Naphthalene	No	---
98-95-3	Nitrobenzene	No	---
100-02-7	Nitrophenol-4	No	---
79-46-9	Nitropropane-2	No	---
87-86-5	Pentachlorophenol	No	---
109-95-2	Phenol	No	---
106-50-3	Phenylenediamine-p	No	---
7723-14-0	Phosphorus	No	---

CAS No.	HAP	Table 45-13A / Rule 27 Toxic Air Pollutant?	Facility Exceeds 45-13A / Rule 27 Potential Emission Rate Threshold?
85-44-9	Phthalic anhydride	No	---
75-55-8	Propylenimine-1,2 (2-Methylaziridine)	No	---
100-42-5	Styrene	No	---
108-88-3	Toluene	No	---
584-84-9	Toluene diisocyanate-2,4	No	---
95-53-4	Toluidine-o	No	---
120-82-1	Trichlorobenzene-1,2,4	No	---
79-01-6	Trichloroethylene	Yes	No
121-44-8	Triethylamine	No	---
108-05-4	Vinyl acetate	No	---
1330-20-7	Xylenes	No	---
	Antimony compounds	No	---
	Arsenic compounds	Yes	No
	Beryllium compounds	Yes	No
	Cadmium compounds	No	---
	Chromium compounds	No	---
	Cobalt compounds	No	---
	Glycol ethers	No	---
	Lead compounds	Yes	No
	Manganese compounds	No	---
	Mercury compounds	Yes	No
	Fine Mineral Fibers	No	---
	Nickel compounds	No	---
	Radionuclides	No	---
	Selenium compounds	No	---