West Virginia Department of Environmental Protection
Division of Air Quality

Earl Ray Tomblin
Governor

Randy C. Huffman
Cabinet Secretary

Permit to Operate

Pursuant to
Title V
of the Clean Air Act

Issued to:
Alliant Techsystems Operations LLC
Allegany Ballistics Laboratory
R30-05700011-2014 (3 of 3)

William F. Durham
Director

Issued: July 29, 2014 • Effective: August 12, 2014
Expiration: July 29, 2019 • Renewal Application Due: January 29, 2019

Permit Number: **R30-05700011-2014 (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 V. 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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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 - Group 00L					
L-1S	L-1E	No. 17 Coal-Fired Boiler-344	1988	51 mmBTU/hr	L-1C
L-2S	L-2E	No. 15 Oil-Fired Boiler-344	1971	78 mmBTU/hr	
L-3S	L-3E	No. 16 Oil-Fired Boiler-344	1971	78 mmBTU/hr	
L-6S	FUG**	Entry Hopper-344	1988		Partially enclosed
L-7S	FUG	Bucket Elevator-344	1988		Full Enclosure

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
L-8S	FUG	Storage Silo-344	1988		Full Enclosure
L-9S	FUG	Belt Conveyor-344	1988		Full Enclosure
L-10S	FUG	Boiler Feed Hopper-344	1988		Full Enclosure
L-4S	VI	Nalco 1741 Boiler Treatment Feed Tank-344	2000	400 gal	
L-15S	VI	Nalco 356 Corrosion Inhibitor Feed Tank-344	2000	200 gal	
L-16S	VI	Nalco 1720 Oxygen Scavenger Feed Tank-344	2000	200 gal	
L-17S	VI	Acid Mix Tank-344	2000	50 gal	
L-18S	VI	Sodium Metabisulfite Solution Tank-344	2000	50 gal	
L-19S	VI	Antiscalant Solution Tank-344	2000	50 gal	
L-20S	VI	Sodium Hydroxide Solution Tank-344	2000	50 gal	
L-11S	L-5E	Dual Fuel Steam Boiler with Low NOx Burners	1996/2006/ 2014	9.92 mmBTU/hr	
L-12S	L-6E	Dual Fuel Steam Boiler	2005/2006/ 2014	9.96 mmBTU/hr	
L-21S	VI	Nalco 1720 Oxygen Scavenger Feed Tank-8501	2001	100 gal	
L-21S	VI	Boiler Feedwater Chemical Tank-8501	2001	100 gal	
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	
Storage Tanks - Group 00M					
M-2S	M-2E	Fuel Oil Storage Tank-344	1971	50,000 gal	

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
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-256	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	
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					
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	

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

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

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

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

MAC Warhead Aluminum Preparation – Group 00X

X-1S	X-1E	Exhaust Hood for Acetone/Viton Mixing	2005	55 gal	
X-2S	X-2E, X-3E	Ross Mixer for Viton/Aluminum coating	2005	250 lb	X-1C, X-2C
X-3S	X-3E	Sweco Shaker	2005	Variable	X-2C
X-4S	X-3E	Natoli Pelletizer	2005	20 lb	X-2C
X-5S	X-4E	Grieve Pre-Heat Oven	2005	Variable	
X-6S	X-3E	JH Day 200 Ton Press	2005	Variable	X-2C

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)	
X-1C	X-2E, X-3E	Hydro-Static Precipitator with 99.9% efficiency	2005	-	
X-2C	X-2E, X-3E	Hydro-Static Precipitator with 99.9% efficiency	2005	-	

* VI stands for "Vents inside of building"
** FUG stands for "Fugitives"

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
R13-0974A	05/23/2001
R13-1771B	04/27/2004
R13-2023C	05/05/2014
R13-2301A	07/13/2001
G60-C020	09/30/2010

2.0 General Conditions

2.1. Definitions

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

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

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

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

2.2. Acronyms

CAAA	Clean Air Act Amendments	**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§30-2.39]

2.12. Reasonably Anticipated Operating Scenarios

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

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

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

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

[45CSR§30-5.1.i.]

2.13. Duty to Comply

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

2.14. Inspection and Entry

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

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

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

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

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

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

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

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

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

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

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

2.17. Emergency

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

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

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

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

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

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

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

[45CSR§30-5.7.c.]

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

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

2.18. Federally-Enforceable Requirements

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

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

2.19. Duty to Provide Information

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

2.20. Duty to Supplement and Correct Information

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

2.21. Permit Shield

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

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

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

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

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

[45CSR§30-5.6.c.]

2.22. Credible Evidence

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

2.23. Severability

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

2.24. Property Rights

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

2.25. Acid Deposition Control

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

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

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

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

[45CSR§30-5.1.d.]

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

3.0 Facility-Wide Requirements

3.1. Limitations and Standards

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

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

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

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

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

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

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

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

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

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

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

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

3.1.9. The 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]

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, R13-0974, B.5]

3.1.10. 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, R13-0974, B.7; 45CSR13, R13-2301, B.6 and 45CSR13, R13-1771, B.7]

3.2. Monitoring Requirements

3.2.1. Compliance with Section 3 of 45CSR7 (Requirement 3.1.9 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 L-6S, L-7S, L-8S, L-9S and L-10S 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 40CFR60 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 3.5.10 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]

3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may

at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

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

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

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

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

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

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

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

[WV Code §§ 22-5-4(a)(14-15) and 45CSR13, R13-2023, 3.3.1]

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, R13-0974, B.10 and 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, R13-0974, B.10 and 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, R13-0974, B.9 and 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 and 45CSR13, R13-2023, 4.4.1]

3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.
[45CSR§30-5.1.c.2.B and 45CSR13, R13-2023, 3.4.1]

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. A record of each visible emission observation and opacity evaluation per Requirement 3.2.1 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.]

3.4.5. To demonstrate compliance with the Requirement 3.1.9 (45CSR§7-5.1) the company shall keep records of maintenance and operations of fugitive dust control systems for the following Sources 9-11S (Zero Grit Blaster-432) and P-96S (Empire Grit Blaster-406-110) (Control Devices ID 9-1C, P-5C).
[45CSR§30-5.1.c]

3.5. Reporting Requirements

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

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

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

If to the DAQ:

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

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

If to the US EPA:

Associate Director
Office of Air Enforcement and Compliance Assistance (3AP20)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

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

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

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

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

3.5.8. **Deviations.**

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

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

2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written

report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.

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

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

[45CSR§30-5.1.c.3.C.]

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

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

3.5.10. Upon observing any visible emissions during an Opacity Evaluation as per Requirement 3.2.1. 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.]

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) 40CFR63, Subpart GG, Section 63.745 – National Emission Standards for Aerospace Manufacturing Operations. The painting operations at this facility are exempted from Section 63.745 Primer and Topcoat operations because Specialty Coatings (definition per §63.742) are

used for all painting operations. Specialty Coating applications are covered by Control Technology Guidelines (CTG) EPA-453/R-97-004 enacted under 45CSR21 for RACT control of VOCs. However, the facility is not located in an area that is subject to 45CSR21, and is therefore, not subject to any CTG guidelines for Specialty Coating application.

(c) 40CFR63, 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.

(d) 40CFR63, 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, which is currently being investigated under the RCRA corrective action program, that is expected to begin some form of remediation within the next five years. This site would also be exempted since it is being managed under a RCRA corrective action. In addition, none of the sites would generate emissions of more than 1 megagram per year of HAPs.

(e) 40CFR63, Subpart WWWWW – 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 Requirements [Emission Units Group ID 00L]

4.1. Limitations and Standards

4.1.1. Emissions to the atmosphere from the coal-fired boiler stack, Source ID 27s (Boiler No. 17, Emission Point L-1E), shall not exceed the following limits:

Pollutant	Emission Rates	
	lb/hr	tons/yr
Particulate Matter	2	8.8
Sulfur Dioxide	104	162.8
Nitrogen Oxides	20	61.4
Volatile Organic Compounds (VOC)	3	13.2
Carbon Monoxide	23	101.0

[45CSR13, R13-0974, A.1]

4.1.2. One of the permittee's two Riley residual oil-fired units designated as Boilers Nos. 15 and 16 (Source ID L-2S and L-3S) shall be shut-down upon start-up of the permitted coal-fired boiler, designated as Boiler No. 17 (Source ID L-1S). After start-up of the coal-fired boiler, only one of the two Riley oil-fired units (Boilers Nos. 15 and 16) shall be operated simultaneously with the permitted coal-fired boiler.
[45CSR13, R13-0974, A.2]

4.1.3. Under emergency conditions the designated shut-down Riley oil-fired unit (Boilers Nos. 15 OR 16) may be operated concurrently with the oil-fired boiler designated for operating status (Boilers Nos. 15 OR 16) provided that:

a. The permitted coal-fired boiler is shut-down during all such emergency operating periods.

b. That all emissions from the designated shut-down boiler during all periods of such emergency operation are counted against (e.g., are subtracted from) annual emissions limitations specified in Requirement 4.1.1 for the coal-fired boiler.

[45CSR13, R13-0974, A.3]

4.1.4. The maximum sulfur content of coal fired in the permitted coal-fired boiler shall not exceed 1.6% by weight provided, however, that the emission limitations of Requirement 4.1.1 are met.
[45CSR13, R13-0974, A.4]

4.1.5. The following conditions and requirements are specific to Boilers L-11S and L-12S:

a. The boilers 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 each boiler.

b. Each 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 boilers 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(s) 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 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 4.2.2 of this permit.
[45CSR§2-3.1]

f. Each boiler shall not have a maximum heat input in excess as listed in Table 1.0. Compliance with this limit shall be satisfied by limiting the annual heat input to 86,900 MMBtu per year for L-11S and 87,250 MMBtu/hr for L-12S.

g. The permittee shall conduct the initial tune-up for each 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 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 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 for Boiler L-11S needs to be consistent with the manufacturer's NO_x concentration setting of 60 ppm on natural gas;

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, R13-2023, 4.1.1 and 40 CFR §63.7500(a)(1), §63.7505(a), §§63.7510(e) and (j), §63.7515(d), §§63.7540(a)(10), (11) and (13), and Table 3 to Subpart DDDDD of Part 63—Work Practice Standards; 45CSR34]

4.1.6. The permittee shall conduct a "one-time energy assessment" of the facility, which shall include Boilers L-11S, and 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, R13-2023, 4.1.2 and 40 CFR §63.7500(a)(1), §63.7505(a), and Table 3 of 40 CFR 63 Subpart DDDDD; 45CSR34]

4.1.7. The pertinent sections of 45CSR2 and 45CSR2A applicable to this facility (Emission Unit Group 00L) 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 fuel burning unit which is greater than (10) percent opacity based on a six minute block average.
[45CSR§2-3.1]

Compliance with the visible emission requirements of subsection 3.1 shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director. The Director may require the installation, calibration, maintenance and operation of continuous opacity monitoring systems and may establish policies for the evaluation of continuous opacity monitoring results and the determination of compliance with the visible emission requirements of subsection 3.1. Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control.
[45CSR§2-3.2]

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:
[45CSR§2-4.1] *(except Boilers L-11S and L-12S)*

For Type 'c' fuel burning units, in excess of the values listed in Table 45-2, provided however that no more than three hundred (300) pounds per hour of particulate matter shall be discharged into the open air from all such units.
[45CSR§2-4.1.c] *(except Boilers L-11S and L-12S)*

Subject to the provisions of this rule, allowable emission rates for individual stacks shall be determined by the owner and/or operator and registered with the Director at the request of, and on forms provided by, the Director. Such rates shall be subject to review and approval by the Director.
[45CSR§2-4.2] *(except Boilers L-11S and L-12S)*

Sections **45CSR§2-5.1, 5.1.a, 5.1.b and 5.1.c** below are applicable only to coal fired boilers.

No person shall cause, suffer, allow or permit any source of fugitive particulate matter to operate that is not equipped with a fugitive particulate matter control system. This system shall be operated and maintained in such a manner as to minimize the emission of fugitive particulate matter. Sources of fugitive particulate matter associated with fuel burning units shall include, but not be limited to, the following:
[45CSR§2-5.1]

Stockpiling of ash or fuel either in the open or in enclosures such as silos;
[45CSR§2-5.1.a]

Transport of ash in vehicles or on conveying systems, to include spillage, tracking, or blowing of particulate matter from or by such vehicles or equipment; and
[45CSR§2-5.1.b]

Ash or fuel handling systems and ash disposal areas.
[45CSR§2-5.1.c]

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 Director. Such records are to be maintained on-site and made available to the Director or his duly authorized representative upon request.
[45CSR§2-8.3.c] *(except Boilers L-11S and L-12S)*

For fuel burning unit(s) which burn only coal, such records shall include, but not be limited to, the date and time of start-up and shutdown, the quantity of fuel consumed on a daily basis and an ash and BTU analysis for each shipment.
[45CSR§2A-7.1.a.4] *(except Boilers L-11S and L-12S)*

For fuel burning unit(s) which burn an alternative fuel(s), such records shall include, but not be limited to, the date and time of start-up and shutdown, and fuel quality analysis as approved by the Director.
[45CSR§2A-7.1.a.5] *(except Boilers L-11S and L-12S)*

The visible emission standards set forth in 45CSR§2-3 shall apply at all times except in periods of start-ups, shutdowns and malfunctions. Where the Director believes that start-ups and shutdowns are excessive in duration and/or frequency, the Director may require an owner or operator to provide a written report demonstrating that such frequent start-ups and shutdowns are necessary.
[45CSR§2-9.1] *(except Boilers L-11S and L-12S)*

The owner or operator of a fuel burning unit(s) subject to 45CSR2 shall report to the Director any malfunction of such unit or its air pollution control equipment which results in any excess particulate matter emission rate or excess opacity (i.e., emissions exceeding the standards in 45CSR§2-3, 4) as provided in one of the following subdivisions: 45CSR§2-9.3.a. and 9.3.b.
[45CSR§2-9.3] *(except Boilers L-11S and L-12S)*

[45CSR13, R13-0974, B.4 and 45CSR2]

4.1.8. The pertinent sections of 45CSR10 applicable to this facility (Emission Unit Group 00L except Boilers L-11S and L-12S) include, but are not limited to, the following:

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:
[45CSR§10-3.1]

For Type 'b' and Type 'c' fuel burning units, the product of 3.1 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour.
[45CSR§10-3.1.e]

[45CSR13, R13-0974, B.6]

4.1.9. Emissions of Particulate Matter to the atmosphere from the oil-fired boilers Nos. 15 and 16 (Emission Points ID L-2E and L-3E), shall not exceed the following limits:

Emission Point	Particulate Matter, lb/hr
L-2E	7.11
L-3E	7.11

[45CSR§2-4.2. a]

4.1.10. **Industrial, Commercial, and Institutional Boilers and Process Heaters MACT, 40 CFR 63, Subpart DDDDD:**

a. Boiler No. 17, Source ID L-1S, Boiler No. 16, Source ID L-2S and Boiler No. 16, Source ID L-3S shall comply with all applicable requirements for existing affected sources pursuant to 40 CFR 63, Subpart DDDDD, "National Emission Standards for Hazardous Air Pollutants for Industrial/Commercial/Institutional Boilers and Process Heaters" no later than the existing source compliance date of January 31, 2016, or as amended by US EPA.
[45CSR34; 40 CFR §63.7495(b)]

b. If required to submit a Notification of Compliance Status (NOCS) pursuant to 40 CFR 63, Subpart DDDDD, the permittee shall also submit a complete application for significant modification to the Title V permit to incorporate the specific requirements of the rule no later than the maximum time allowed for the NOCS submittal in 40 CFR §63.7545(e).

If requested, this Title V permitting deadline may be changed upon written approval by the Director. The permittee shall request the change in writing at least 30 days prior to the application due date.

[45CSR34; 40 CFR §63.7545(e); 45CSR§30-6.5.b]

4.2. Monitoring Requirements

4.2.1. To determine compliance with Requirement 4.1.4, the permittee shall perform sufficient sampling and analyses of fuels to verify that sulfur contents, ash contents and heating values meet the appropriate specifications and any limitations set forth in Permit Applications R13-0974 and R13-0974A and this permit. With respect to the coal fired in the permitted stoker-fired boiler No. 17 (Source ID L-1S), at least one truckload per every twenty truckloads of coal received shall be sampled and analyzed. The results of all such analyses shall be maintained on site for a period of five (5) years and certified results shall be made available to the Director or his duly authorized representative upon request.
[45CSR13, R13-0974, B.8]

4.2.2. To demonstrate compliance with the requirements of 45CSR§10-8.2.c and 45CSR§10A-6.1 the following Monitoring Plan was approved for coal fired Boiler No. 17 (Source ID L-1S, Emission Point L-1E):

a. No SO_2 weight emission testing per 45CSR§10A-5.1.a. is required for the boiler if sulfur content of the bituminous coal used is 1.2% or less (which keeps SO_2 emissions below testing applicability level). Therefore, compliance shall be determined by monitoring the sulfur content of the coal and the use of AP-42 emission factors.

b. ATK's coal contract specifies that a stockpile be reserved for ATK use. A copy of the laboratory analysis from the coal company shall be obtained with the first load from the stockpile which lasts approximately one month. Initial stockpile analysis would be representative of the remaining shipments. SO_2 emissions shall be calculated on a monthly basis using sulfur content analysis and AP-42 emission factor to determine compliance with the weight emission factors per 45CSR§10-3.1.e.

c. The facility specifications provided to coal vendors require coal sulfur content of 1% or less in order to maximize fuel burning efficiency. Compliance with the 1% sulfur content will assure compliance with SO_2 hourly emission limit set forth in Requirement 4.1.1, and with the Requirements 4.1.4 and 4.2.2.a.

d. If at any time sulfur content of the burning coal would exceed 1.2%, report shall be submitted to the DAQ Director within 30 days.

[45CSR§10A-6.4 and 45CSR§30-5.1.c]

4.2.3. To demonstrate compliance with the requirements of 45CSR10 and 45CSR10A, the following Monitoring Plan was approved for Boilers Nos. 15 and 16 (Source ID L-2S & L-3S, Emission Points L-2E & L-3E):

a. No stack testing to determine SO_2 weight emission factor is required per 45CSR§10A-5.1.a for the oil fired boilers if sulfur content of the oil is 1.5% or less per shipment (which keeps SO_2 emissions of any one of the two boilers below testing applicability level). Therefore, compliance shall be determined by monitoring the sulfur content of the oil burned, quantity of oil burned, and the use of AP-42 emission factors.

b. A copy of the laboratory analysis from the oil company shall be obtained with each delivery ticket. Emissions shall be calculated on a monthly basis to determine compliance with the weight emission standard per 45CSR§10-3.1.e.

c. The facility specifications provided to oil vendors require oil sulfur content of 1% or less in order to maximize fuel burning efficiency. Compliance with the 1% sulfur content will assure compliance with the Requirement 4.2.3.a.

f. If at any time sulfur content of the burning oil would exceed 1.5%, report shall be submitted to the DAQ Director within 30 days.

[45CSR§10A-6.4. and 45CSR§30-5.1.c]

4.2.4. Compliance with opacity standard per 45CSR§2-3.1 (Requirement 4.1.7 of this Permit) shall be determined by conducting visual emission observations in accordance with 40 CFR Part 60, Appendix A, Method 9 for the Emission Points L-1E, L-2E, L-3E.

Visual emission observations shall be conducted weekly during periods of facility operation to determine if the unit has visible emissions using procedures outlined in 40CFR60 Appendix A, Method 22 for a minimum of 4 consecutive weeks. If in compliance, then monthly Method 22 checks shall be conducted.

If sources of visible emissions are identified during the survey, or at any other time, the permittee shall conduct an Opacity Evaluation as outlined in 40CFR60 Appendix A, Method 9, within 24 hour period unless the permittee can demonstrate a valid reason that the time frame should be extended. Method 9 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§2-3.1 for any emission point, reporting shall be initiated, and for this emission point Method 22 checks shall revert back to the weekly frequency requirement and begin the progressive monitoring cycle again.

[45CSR§30-5.1.c]

4.2.5. In order to maintain compliance with the PM emission limit set forth in Requirement 4.1.1 (Emission Point L-1E) the permittee shall use fired coal with ash content maximum of 15%.

[45CSR§30-12.7]

4.2.6. For each month, the permittee shall record the amount of fuel by type (natural gas and distillate oil) consumed by boilers L-11S and L-12S. 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 Condition 4.1.5 (f). Such records shall be maintained in accordance with Condition 3.4.2 of this permit.
[45CSR13, R13-2023, 4.2.1 and 45CSR§2A-7.1.a.1]

4.2.7. When boiler L-11S or L-12S is operated on 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 Condition 4.1.5 (e) after the 30th consecutive operating days and no later than the 45 consecutive days. Once the boiler switches back to 100% natural gas, the counting of 30 consecutive operating days shall reset to zero and not be counted 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 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR 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 fuel 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 a 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, R13-2023, 4.2.2]

4.2.8. For the purpose of demonstrating compliance with periodic testing, and readiness checks limit of Condition 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 Condition 4.1.5 (a) of this permit. Such records shall be maintained in accordance with Condition 3.4.2.
[45CSR13, R13-2023, 4.2.3]

4.3. Testing Requirements

4.3.1. At such reasonable time(s) as the Director may designate, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations as set forth in Requirement 4.1.1 above. Test(s) shall be conducted in accordance with Requirements 3.3.1, 3.3.3, and 3.3.4(a) –(f) contained herein. The Director, or his duly authorized representative, may, at his option, witness or conduct such tests. Should the Director exercise his option to conduct such test(s), the operator shall 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.
[45CSR13, R13-0974A, B.1]

4.3.2. To determine compliance with the NOx and CO hourly emission limitations as set forth in Requirement 4.1.1. test(s) per Requirement 4.3.1 shall be conducted once per permit term.
[45CSR§30-12.7]

4.4. Recordkeeping Requirements

4.4.1. In order to demonstrate compliance with NOx, CO, PM, VOC and SO_2 emission limits set forth in Requirement 4.1.1, the permittee shall maintain monthly and yearly records of following calculations. Compliance with hourly emission rates shall be demonstrated based on monthly emission calculations as follows: for PM and VOC - utilizing AP-42 emission factors, for NOx and SO_2 - as per Requirement 4.4.2.d, for CO - utilizing test derived emission factors from results of test required in Section 4.3. Compliance with the annual emission limit shall be demonstrated using a Rolling Yearly Total. Rolling Yearly Total means the sum of emissions generated at any given time for the previous twelve (12) consecutive calendar months. Said records shall be maintained on-site and shall be certified and made available to the Director or his/her duly authorized representative upon request.
[45CSR§30-5.1.c]

4.4.2. To determine compliance with Requirements 4.1.2 and 4.1.3, the permittee shall maintain monthly fuel use reports and boiler operation records of the following information:

a. Total hours of operation during the month for each boiler operated by the permittee at the Allegany Ballistics Laboratory during the month.

b. Actual monthly fuel use/fuel quality for fuels consumed during the month including a summary of the results of all fuel analyses performed by the permittee.

c. Actual recorded fuel oil consumption for each oil-fired boiler or an estimate of the percentage of the total fuel oil use in each oil-fired boiler at Allegany Ballistics Laboratory. The report must show actual fuel oil consumption by the designated "shut-down" Riley oil-fired unit (Boilers Nos. 15 or 16, Source ID L-2S and L-3S) if the shut-down boiler was operated for emergency conditions as set forth under Requirement 4.1.3. The dates and durations of such boiler operations shall also be specified in the monthly report.

d. An estimate of total sulfur dioxide and nitrogen oxides emissions from the permitted coal-fired unit (Emission Point L-1E) for the month, including all emissions from any emergency operation of the designated stand-by oil-fired boilers (Nos. 15 or 16, Source ID L-2S and L-3S) . Emissions from the oil-fired stand-by unit shall be calculated using the reported fuel use and fuel quality data for the month and AP-42 emission factors (or more accurate source-specific emission factors derived from stack testing of the Allegany Ballistics Laboratory boilers). For the coal-fired boiler (No. 17), monthly SO_2 and NO_X emissions shall be estimated using emission factors derived for this Allegany Ballistics Laboratory boiler from stack tests conducted in accordance with Requirement 4.3.1. provided, however, that SO_2 emissions may also be calculated from the fuel use/fuel quality data and the assumption of 100% conversion of fuel sulfur to SO_2.

e. Baghouse (ID No. L-1C) by-pass records as per Requirement 4.1.7, 45CSR§2-9.3.

These reports shall be maintained on site and a certified report shall be made available to the Director or his duly authorized representative upon request
[45CSR13, R13-0974, B.2]

4.4.3. The permittee shall maintain records of all monitoring data required by Condition 4.2.7 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"
[45CSR13, R13-2023, 4.4.4]

4.4.4. For the purpose of ensuring that the boilers covered by Condition 4.1.5 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, R13-2023, 4.4.5]

4.4.5. In order to assure proper operation of the baghouse (Source ID No. L-1S) the permittee shall conduct an annual preventative maintenance inspection / cleaning / replacement / refurbishment of the bags, bag connection, and dust hoppers, as appropriate, of the baghouse L-1C. Records shall be maintained on site stating the date and time of each baghouse's annual preventative maintenance activity, the results of the annual preventative maintenance activity, and all corrective actions taken.
[45CSR§30-5.1.c]

4.4.6. To demonstrate compliance with the Requirement 4.1.7 (45CSR§2-8.3.c, 45CSR§2A - 7.1.a.4 and 7.1.a.5) and Requirement 4.2.5 the permittee shall keep the following records:

a. For Boiler No. 17 (Source ID L-1S, Emission Point L-1E) - date and time of start up and shutdown, the quantity of coal consumed on a daily basis, and an ash and BTU analysis for the first shipment from each new stockpile used (as per Requirement 4.2.2.b);

b. For Boilers Nos. 15 and 16 (Source ID L-2S & L-3S, Emission Points L-2E & L-3E) - the date and time of start-up and shutdown, and oil BTU analysis on a monthly basis.

[45CSR§30-5.1.c]

4.4.7. To demonstrate compliance with the PM emission standard per 45CSR§2-4.1.b. for oil fired boilers set forth in Requirement 4.1.9, the permittee shall calculate average hourly PM emission rate for each boiler based on oil usage and oil sulfur content (monitored per Requirement 4.2.3.c.) on a monthly basis. Records shall be maintained on site.
[45CSR§30-5.1.c]

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

a. The name of the distillate oil supplier;

b. A statement or standard from the distillate oil 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 distillate oil supplied, in terms of % sulfur or ppm.

[45CSR13, R13-2023, 4.4.6] *(Boilers L-11S and L-12S)*

4.4.9. The permittee shall keep the following records in accordance with 40CFR§63.7555. This includes but not limited to the following information during the tune up as required in Condition 4.1.5(g) 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, R13-2023, 4.4.7; 40 CFR §§63.7540(a)(10)(vi) and 63.7555; 45CSR34]

4.5. Reporting Requirements

4.5.1. Any exceedance(s) of the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 (condition 4.2.7) 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.
[45CSR13, R13-2023, 4.5.1]

4.5.2. The permittee shall submit a "Notification of Compliance Status" for Boilers L-11S and L-12S to the Director before the close of business on the sixtieth (60^{th}) day after completion of the initial compliance demonstration as required in 40 CFR §63.7530(e) and (g). 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 energy assessment was completed, and the initial tune-up for boiler was completed.
[45CSR13, R13-2023, 4.5.2; 40CFR§§63.7530(d) and (e), and §63.7545(e); 45CSR34]

4.5.3. The permittee shall submit biennial "Compliance Reports" to the Director for Boilers L-11S, and L-12S with the first report being submitted by no later than January 31, 2016, and subsequent reports are due every 2 years from thereafter. Such reports shall contain the information specified in 40 CFR §§63.7550(c)(5)(i) through (iv) and (xiv) 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. The total operating time during the reporting period of each affected unit;

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

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

The permittee must submit this report electronically using CEDRI that is accessed through the EPA's Center Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form for this report is not available in CEDRI at the time the report is due, the permittee shall submit the report to the Administrator using the address listed in Condition 3.5.3.
[45CSR13, R13-2023, 4.5.3 and 40CFR §§63.7550(b), (b)(1), (c)(1), & (c)(5)(i) though (iv) and (xiv); 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.

[40CFR§63.7545(f) and 45CSR34]

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 3, 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]

5.2. Monitoring Requirements

5.2.1. None.

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. In order to ensure proper operation of the Cyclone Dust Collector (Source ID No. P-5C), the permittee shall conduct an annual preventative maintenance inspection / cleaning / replacement / refurbishment of the bags, bag connection, and dust hoppers, as appropriate. Records shall be maintained on site stating the date and time of each baghouse's annual preventative maintenance activity, the results of the annual preventative maintenance activity, and all corrective actions taken.
[45CSR§30-5.1.c]

5.4.6. 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]

5.5. Reporting Requirements

5.5.1. None.

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

6.6.1. None.

6.6. Compliance Plan

6.5.1. None.

7.0 Emergency Engines [emission point ID(s): EG-1 through 10]

7.1. Limitations and Standards

These engines are subject to the attached 45CSR13 General Permit G60-C020. Section 7 of Class II General Permit (40CFR60 Subpart IIII) applies only to engines EG-7, EG-9 and EG-10.
[EG-1 thru 10]

7.1.1. 40 C.F.R. § 63.6640 How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?

(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 (4) 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, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4) of this section, 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 any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (4) 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.

(ii) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(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 and emergency demand response 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, 2, 3, 4, 5, 6, 7, 8, 9][45CSR34; 40 C.F.R § 63.6640]

7.1.2. 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.

(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, 3, 4, 5, 6, 7, 8, 9][45CSR34; 40 C.F.R § 63.6605]

7.1.3. 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 annually, whichever comes first;[2] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, 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]

7.1.4. 40 C.F.R. §63.6604 What fuel requirements must I meet if I own or operate a stationary CI RICE?

(b) Beginning January 1, 2015, if you own or operate an existing emergency CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in §63.6640(f)(4)(ii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

[EG-1, 2, 3, 4, 5 and 8][45CSR34; 40 C.F.R § 63.6604(b)]

(c) Beginning January 1, 2015, if you own or operate a new emergency CI stationary RICE with a site rating of more than 500 brake HP and a displacement of less than 30 liters per cylinder located at a major source of HAP that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

[EG-6, 7 and 9][45CSR34; 40 C.F.R § 63.6604(c)]

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;

(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.

(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.

(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 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 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. If any of the limits are exceeded, the engine owner or operator must change the oil 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 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 changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[EG-1, 3, 4, 5, 8][45CSR34; 40 C.F.R § 63.6625]

7.3. Testing Requirements

7.3.1. None.

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 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.

(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

(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 purposes specified in §63.6640(f)(2)(ii) or (iii) or §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.

(2) An existing emergency stationary RICE located at an area 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]

7.5. Reporting Requirements

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

a) You must submit all of the notifications in §§**63**.7(b) and (c), **63**.8(e), (f)(4) and (f)(6), **63**.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;

(1) An existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

(2) An existing stationary RICE located at an area source of HAP emissions.

(3) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(4) A new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 HP located at a major source of HAP emissions.

(5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.

[EG-1, 3, 4, 5, 8][45CSR34; 40 C.F.R § 63.6645]

(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 and 9][45CSR34; 40 C.F.R § 63.6645]

7.5.2. §63.6650 What reports must I submit and when?

(h) If you own or operate an emergency stationary RICE with a site rating of more than 100 brake HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in §63.6640(f)(4)(ii), you must submit an annual report according to the requirements in paragraphs (h)(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) Hours operated for the purposes specified in §63.6640(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(2)(ii) and (iii).

(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §63.6640(f)(2)(ii) and (iii).

(vii) Hours spent for operation for the purpose specified in §63.6640(f)(4)(ii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(4)(ii). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(viii) If there were no deviations from the fuel requirements in §63.6604 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period.

(ix) If there were deviations from the fuel requirements in §63.6604 that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken.

(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) (*www.epa.gov/cdx*). 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 §63.13.

[EG-1, 2, 3, 4, 5, 6, 7, 8, 9][45CSR34; 40 C.F.R § 63.6650(h)]

7.6. Compliance Plan

7.6.1. None.

ATTACHMENT 1

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

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature[1] ....
(please use blue ink) Authorized Representative Responsible Official or Date

Name and Title ....
(please print or type) Name Title

Telephone No. ..... Fax No. .....

---

[1] This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), or

(ii) the delegation of authority to such representative is approved in advance by the Director;

b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of USEPA); or

d. The designated representative delegated with such authority and approved in advance by the Director.

ATTACHMENT 3
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	---

CAS No.	HAP	Table 45-13A / Rule 27 Toxic Air Pollutant?	Facility Exceeds 45-13A / Rule 27 Potential Emission Rate Threshold?
106-89-8	Epichlorohydrin	No	---
140-88-5	Ethyl acrylate	No	---
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	---

CAS No.	HAP	Table 45-13A / Rule 27 Toxic Air Pollutant?	Facility Exceeds 45-13A / Rule 27 Potential Emission Rate Threshold?
87-86-5	Pentachlorophenol	No	---
109-95-2	Phenol	No	---
106-50-3	Phenylenediamine-p	No	---
7723-14-0	Phosphorus	No	---
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	---

ATTACHMENT 4
G60-C020

West Virginia Department of Environmental Protection
Division of Air Quality

Joe Manchin, III
Governor

Randy C. Huffman
Cabinet Secretary

Class II
General Permit G60-C
Registration
to Construct

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45 C.S.R. 13 — Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the facility listed below is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

G60-C020

Issued to:
Alliant Techsystems, Inc.
ATK Tactical Propulsion
057-00011

John A. Benedict
Director

Issued: September 30, 2010 • Effective: September 30, 2010

Class II General Permit: G60-C
Emergency Generators

Facility Location:	Rocket Center, Mineral County, West Virginia
Mailing Address:	210 State Route 956, Rocket Center, WV 26726
Facility Description:	ATK Tactical Propulsion
SIC Codes:	3764
UTM Coordinates:	686.470 km Easting • 4381.250 km Northing • Zone 17
Registration Type:	Construction

Subject to 40CFR60 Subpart IIII? Yes

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.

This permit does not affect 45CSR30 applicability, the source is a nonmajor source subject to 45CSR30.

Class II General Permit: G60-C
Emergency Generators

General Permit Registration Number: G60-C020
Registrant: Alliant Techsystems, Inc.
Facility Name: ATK Tactical Propulsion
Mailing Address: 210 State Route 956, Rocket Center, WV 26726

This Class II General Permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §22-5-1 et seq.) and 45CSR13 — Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The registrant 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 the G60-B Class II General Permit.

All registered facilities under Class II General Permit G60-C are subject to Sections 1.0, 2.0, 3.0, and 4.0.

The following sections of Class II General Permit G60-C apply to the registrant:

Section 5	Reciprocating Internal Combustion Engines (R.I.C.E.)	X
Section 6	Tanks	X
Section 7	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40CFR60 Subpart IIII)	X
Section 8	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (40CFR60 Subpart JJJJ)	☐

Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description (Make, Model, Serial No.)	Year Installed	Design Capacity (bhp/rpm) gallons
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)	1993	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	1,207 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)	----	90 bhp / 1800 rpm
EG-9	EG-9	MTU 1250RXC5DT2 Tier 2 (Bldg 449)	2010	1,675.25 bhp / 1800 rpm
EG-10	EG-10	Caterpillar D100-4 Tier 2 (Bldg 385)	2006	157.5 bhp / 1800 rpm

Fuel Oil Requirements

Maximum Sulfur Content Limit: 0.05%

Minimum Cetane Index: 40 Or Maximum Aromatic Content of: 35% by Volume

Class II General Permit: G60-C
Emergency Generators

Emission Limitations

Emission Unit	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (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

Class II General Permit: G60-C
Emergency Generators

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 500REOZVB-IC2C2 (Tier 2) 757 HP (2008)	Nitrogen Oxides	8.01	2.00
	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

Class II General Permit: G60-C
Emergency Generators

Total Emissions From All Generators	*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*

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 General 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.

ATTACHMENT 5
G60-C

West Virginia Department of Environmental Protection

Joe Manchin, III
Governor

Division of Air Quality

Randy C. Huffman
Cabinet Secretary

Class II General Permit G60-C

for the
Prevention and Control of Air Pollution in regard to the
Construction, Modification, Relocation, Administrative Update and
Operation of Emergency Generators

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45 C.S.R. 13 — Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation.

John A. Benedict
Director

Issued: May 21, 2009

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.

Table of Contents

1.0. Emission Units

All emission units covered by this permit are listed on the issued G60-C Registration.

2.0. General Conditions

2.1. Purpose

The purpose of this Class II General Permit is to authorize the construction, modification, administrative update, relocation, and operation of eligible emergency generators through a Class II General Permit registration process. The requirements, provisions, standards and conditions of this Class II General Permit address the prevention and control of regulated pollutants from the operation of emergency generator(s).

2.2 Authority

This permit is issued in accordance with West Virginia air pollution control law W.Va. Code §§ 22-5-1. et seq. and the following Legislative Rules promulgated thereunder:

2.2.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation*;

2.3 Applicability

2.3.1. All emergency generators installed for the purpose of allowing key systems to continue to operate without interruption during times of utility power outages, including emergency generators installed at Title V(major) facilities and other facilities having additional point sources of emissions, are eligible for Class II General Permit registration except for:

a.. Any emergency generator which is a major source as defined in 45CSR14, 45CSR19 or 45CSR30;
b. Any emergency generator subject to the requirements of 45CSR14, 45CSR15, 45CSR19, 45CSR25, 45CSR27, 45CSR30, 45CSR34;
c. Any emergency generator whose estimated hours of operation exceeds 500 hours per year;
d. Any emergency generator located in or which may significantly impact an area which has been determined to be a nonattainment area. Unless otherwise approved by the Secretary.
e. Any emergency generator which will require an individual air quality permit review process and/or individual permit provisions to address the emission of a regulated pollutant or to incorporate regulatory requirements other than those established by General Permit G60-C.

2.3.2. For the purposes of General Permit G60-C, *emergency generator* means a generator whose purpose is to allow key systems to continue to operate without interruption during times of utility power outages.

2.3.3. The West Virginia Division of Air Quality reserves the right to reopen this permit or any authorization issued under this permit if the area in which the affected facility is located is federally designated as non-attainment for specified pollutants. If subsequently any proposed

construction, modification and/or operation does not demonstrate eligibility and/or compliance with the requirements, provisions, standards and conditions of this General Permit, this General Permit registration shall be denied and an individual permit for the proposed activity shall be required.

2.3.4. Except for emergency diesel generators, all emission units covered by this permit, unless they are classified as De Minimis Sources in 45CSR13 Table 45-13B, must be fueled with pipeline-quality natural gas, field gas, propane gas, or equivalent with a maximum sulfur content of 20 grains of sulfur per 100 standard cubic feet and a maximum H_2S content of 0.25 grains per 100 cubic feet of gas (maximum allowed to have in natural gas sold for delivery through the interstate pipeline system).
[45CSR§13-5.11]

2.4. Definitions

2.4.1. 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.

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

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

2.5. Acronyms

CAAA	Clean Air Act Amendments	**NO_X**	Nitrogen Oxides
CBI	Confidential Business Information	**NSPS**	New Source Performance Standards
CEM	Continuous Emission Monitor	**PM**	Particulate Matter
CES	Certified Emission Statement	**$PM_{2.5}$**	Particulate Matter less than 2.5 µm in diameter
C.F.R. *or* CFR	Code of Federal Regulations		
CO	Carbon Monoxide	**PM_{10}**	Particulate Matter less than 10µm in diameter
C.S.R. *or* CSR	Codes of State Rules		
DAQ	Division of Air Quality	**Ppb**	Pounds per Batch
DEP	Department of Environmental Protection	**Pph**	Pounds per Hour
		Ppm	Parts per Million
dscm	Dry Standard Cubic Meter	**Ppm_V or ppmv**	Parts per Million by Volume
FOIA	Freedom of Information Act		
HAP	Hazardous Air Pollutant	**PSD**	Prevention of Significant Deterioration
HON	Hazardous Organic NESHAP		
HP	Horsepower	**Psi**	Pounds per Square Inch
lbs/hr	Pounds per Hour	**SIC**	Standard Industrial Classification
LDAR	Leak Detection and Repair		
M	Thousand Maximum Achievable	**SIP**	State Implementation Plan
		SO_2	Sulfur Dioxide

MACT	Control Technology	**SO_2**	Toxic Air Pollutant
MDHI	Maximum Design Heat Input Million	**TAP**	Tons per Year
MM	Million British Thermal Units	**TPY**	Total Reduced Sulfur
MMBtu/hr *or* mmbtu/hr	per Hour	**TRS**	Total Suspended Particulate
MMCF/hr *or* mmcf/hr	Million Cubic Feet per Hour	**TSP**	United States Environmental
NA	Not Applicable	**USEPA**	Protection Agency
NAAQS	National Ambient Air Quality Standards	**UTM**	Universal Transverse Mercator
NESHAPS	National Emissions Standards for Hazardous Air Pollutants	**VEE**	Visual Emissions Evaluation
		VOC	Volatile Organic Compounds
		VOL	Volatile Organic Liquids

2.6. Permit Expiration and Renewal

2.6.1. This Class II General Permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any other applicable legislative rule.

2.6.2. General Permit registration granted by the Secretary shall remain valid, continuous and in effect unless it is suspended or revoked by the Secretary or this Class II General Permit is subject to action or change as set forth in Section 2.6.1 above. **[45CSR§13-10.2, 45CSR§13-10.3]**

2.6.3. The Secretary shall review and may renew, reissue or revise this Class II General Permit for cause. The Secretary shall define the terms and conditions under which existing General Permit registrations will be eligible for registration under a renewed, reissued, or revised General Permit and provide written notification to all General Permit registrants (or applicants). This notification shall also describe the registrant's (or applicant's) duty or required action and may include a request for additional information that may be required by any proposed general permit renewal, reissuance or revision.

2.7. Administrative Update to General Permit Registration

2.7.1. The registrant may request an administrative registration update to their General Permit registration as defined in and according to the procedures specified in 45CSR§13-4. **[45CSR§13-4.]**

2.8. Modification to General Permit Registration

2.8.1. The registrant may request a permit modification to their General Permit registration as defined in and according to the procedures specified in 45CSR§13-5. **[45CSR§13-5.]**

2.9. Duty to Comply

2.9.1. The registered affected facility shall be constructed and operated in accordance with the information filed in the General Permit Registration Application and any amendments thereto. The Secretary may suspend or revoke a General Permit registration if the plans and specifications upon which the approval was based are not adhered to.

2.9.2. The registrant must comply with all applicable conditions of this Class II General Permit. Any General Permit noncompliance constitutes a violation of the West Virginia Code, and/or the Clean Air Act, and is grounds for enforcement action by the Secretary or USEPA.

2.9.3. Violation of any of the applicable requirements, provisions, standards or conditions contained in this Class II General Permit, or incorporated herein by reference, may subject the registrant to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7.

2.9.4. Registration under this Class II General Permit does not relieve the registrant herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e. local, state and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or affected facility herein permitted.

2.10. Inspection and Entry

2.10.1. The registrant 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 enter upon the registrant'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 Class II General Permit;

c. Inspect at reasonable times (including all times in which the affected facility is in operation) any affected facilities, equipment (including monitoring and air pollution Control equipment), practices, or operations regulated or required under this Class II General 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.

2.11. Need to Halt or Reduce Activity not a Defense

2.11.1. It shall not be a defense for a registrant in an enforcement action that it should have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Class II General 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.

2.12. Emergency

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

2.12.2 Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of Section 2.12.3 below are met.

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

a. An emergency occurred and that the registrant can identify the cause(s) of the emergency;
b. The registered affected facility was at the time being properly operated;
c. During the period of the emergency the registrant took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in this Class II General Permit; and
d. The registrant submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and variance request fulfills the requirement of C. S. R. § 45-30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

2.12.4. In any enforcement proceeding, the registrant seeking to establish the occurrence of an emergency has the burden of proof.

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

2.13. Duty to Provide Information

2.13.1. The registrant 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 this Class II General Permit Registration or to determine compliance with this General Permit. Upon request, the registrant shall also furnish to the Secretary copies of records required to be kept by the registrant. For information claimed to be confidential, the registrant 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 registrant shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

2.14. Duty to Supplement and Correct Information

2.14.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any registration application, the registrant shall promptly submit to the Secretary such supplemental facts or corrected information.

2.15. Credible Evidence

2.15.1. Nothing in this Class II General 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 registrant including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.

2.16. Severability

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

2.17. Property Rights

2.17.1. Registration under this Class II General Permit does not convey any property rights of any sort or any exclusive privilege.

2.18. Notification Requirements

2.18.1. The registrant shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Suspension of Activities

2.19.1. In the event the registrant should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the affected facility authorized by this permit, the registrant shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.20. Transferability

2.20.1. This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. **[45CSR§13-10.1.]**

3.0.Facility-Wide Requirements

3.1. Siting Criteria

3.1.1. All persons submitting a Class II General Permit Registration Application to construct, modify or relocate an emergency generator shall be subject to the following siting criteria:

a. No person shall construct, locate or relocate any affected facility or emission unit within three hundred (300) feet of any occupied dwelling, business, public building, school, church, community, institutional building or public park. An owner of an occupied dwelling or business may elect to waive the three hundred (300) feet siting criteria.

b. Any person proposing to construct, modify or relocate an emergency generator within three (300) feet of any occupied dwelling, business, public building, school, church, community, institutional building or public park may elect to obtain an individual permit pursuant to 45CSR13.

3.2. Limitations and Standards

3.2.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]

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

3.2.3. **Asbestos.** The registrant is responsible for thoroughly inspecting the affected facility, or part of the affected 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 registrant, 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 registrant 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.
[40CFR§61.145(b) and 45CSR§15]

3.2.4. **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]***

3.2.5. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the

contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]

3.2.6. **Standby plan for reducing emissions.** When requested by the Secretary, the registrant 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.]

3.3. Monitoring Requirements

See Section 4.2.

3.4. Testing Requirements

3.4.1. **Stack testing.** Where required by this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the registrant 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 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as 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 may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 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 registrant shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary. **[WV Code § 22-5-4(a)(15)]**

3.5. Recordkeeping Requirements

3.5.1. **Retention of records.** The registrant shall maintain records of all information (including monitoring data, support information, reports, and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records. Said records shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the registrant. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official. Where appropriate, the registrant may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.

3.5.2. **Odors.** For the purposes of 45CSR4, the registrant 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§4. *State Enforceable Only.*]**

3.6. Reporting Requirements

3.6.1. **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.

3.6.2. **Confidential information.** A registrant may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.

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

If to the DAQ:
Director
WVDEP
Division of Air Quality
601 57th Street
Charleston, WV 25304-2345

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

3.6.4. **Emission inventory.** At such time(s) as the Secretary may designate, the registrant herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the affected facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

3.6.5. Operating Fee.

a. In accordance with 45CSR22 – Air Quality Management Fee Program, the permittee shall not operate nor cause to operate the permitted facility or other associated facilities on the same or contiguous sites comprising the plant without first obtaining and having in current effect a Certificate to Operate (CTO). Such Certificate to Operate (CTO) shall be renewed annually, shall be maintained on the premises for which the certificate has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

b. In accordance with 45CSR30 – Operating Permit Program, the permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

4.0. Source-Specific Requirements (Units listed in General Permit Registration)

4.1. Limitations and Standards

4.1.1. Operation and Maintenance of Air Pollution Control Equipment. The registrant shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in the issued General Permit Registration and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary. **[45CSR§13-5.11.]**

4.1.2. **Minor Source of Hazardous Air Pollutants (HAP).** HAP emissions from the affected facility shall be less than 10 tons/year of any single HAP or 25 tons/year of any combination of HAPs. Compliance with this Section shall ensure that the affected facility is a minor HAP source.

4.2. Recordkeeping Requirements

4.2.1. *Monitoring information.* The registrant 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.

4.2.2. *Record of Maintenance of Air Pollution Control Equipment.* For all pollution control equipment listed in the General Permit Registration, the registrant shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures specifically required in this permit.

4.2.3. *Record of Malfunctions of Air Pollution Control Equipment.* For all air pollution control equipment listed in the General Permit Registration, the registrant 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.

4.2.4. **Minor Source of Hazardous Air Pollutants (HAP).** The registrant shall maintain records of annual HAP emissions using AP-42 emission factors, GRI-GLYCalc model outputs, manufacturer guaranteed values, sample and/or test data, or other methods approved by DAQ demonstrating that facility-wide emissions are less than those specified in Section 4.1.2.

5.0 Source-Specific Requirements (Reciprocating Internal Combustion Engines)

5.1. Limitations and Standards

5.1.1. The reciprocating internal combustion engines listed in the General Permit Registration application shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices.

5.1.2. Regulated Pollutant Limitation. The registrant shall not cause, suffer, allow or permit emissions of PM, PM_{10}, VOC, SO_2, NO_X, CO, and formaldehyde, from any registered reciprocating internal combustion engine to exceed the potential to emit (pounds per hour and tons per year) listed in the General Permit Registration.

5.1.3. Maximum Fuel Consumption Limitation. The maximum fuel consumption for any registered reciprocating internal combustion engine listed in the General Permit Registration application shall not exceed the fuel consumption recorded with registrant's Class II General Permit Registration Application without effecting a modification or administrative update. Compliance with the Maximum Yearly Fuel Consumption Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the fuel consumption at any given time during the previous twelve consecutive calendar months.

5.1.4. Requirements for Use of Catalytic Reduction Devices

a. Rich-burn natural gas compressor engines equipped with non-selective catalytic reduction (NSCR) air pollution control devices shall be fitted with a closed-loop, automatic air/fuel ratio controller to ensure emissions of regulated pollutants do not exceed the potential to emit for any engine/NSCR combination under varying load. The closed-loop, automatic air/fuel ratio controller shall control a fuel metering valve to deliver additional fuel when required to ensure a fuel-rich mixture and a resultant exhaust oxygen content of less than or equal to 0.5%. The automatic air/fuel ratio controller shall also incorporate dual-point exhaust gas temperature and oxygen sensors which provide temperature and exhaust oxygen content differential feedback. Such controls shall ensure proper and efficient operation of the engine and NSCR air pollution control device;

b. Lean-burn natural gas compressor engines equipped with selective catalytic reduction (SCR) air pollution control devices shall be fitted with a closed-loop automatic feedback controller to ensure emissions of regulated pollutants do not exceed the potential to emit for any engine/SCR combination under varying load. The closed-loop automatic feedback controller shall provide proper and efficient operation of the engine, ammonia injection and SCR device, monitor emission levels downstream of the catalyst element and limit ammonia slip to less than 10 ppm_v;

c. The automatic air/fuel ratio controller or closed-loop automatic feedback controller shall provide a warning or indication to the operator and/or be interlocked with the engine ignition system to cease engine operation in case of a masking, poisoning or overrich air/fuel ratio situation which results in performance degradation or failure of the catalyst element; and

d. No person shall knowingly:
   1. Remove or render inoperative any air pollution or auxiliary air pollution control device installed subject to the requirements of General Permit G35-A;

2. Install any part or component when the principal effect of the part or component is to bypass, defeat or render inoperative any air pollution control device or auxiliary air pollution control device installed subject to the requirements of General Permit G35-A; or
3. Cause or allow engine exhaust gases to bypass any catalytic reduction device.

5.2. Monitoring Requirements

5.2.1. Catalytic Oxidizer Control Devices

a. The registrant shall regularly inspect, properly maintain and/or replace catalytic reduction devices and auxiliary air pollution control devices to ensure functional and effective operation of the engine's physical and operational design. The registrant shall ensure proper operation, maintenance and performance of catalytic reduction devices and auxiliary air pollution control devices by:

1. Maintaining proper operation of the automatic air/fuel ratio controller or automatic feedback controller.
2. Following operating and maintenance recommendations of the catalyst element manufacturer.

5.3. Testing Requirements

5.3.1. See Facility-Wide Testing Requirements Section 3.4.

5.4. Recordkeeping Requirements

5.4.1. To demonstrate compliance with section 5.1.1, 5.1.2, and 5.1.3, the registrant shall maintain records of the amount and type of fuel consumed in each engine and the hours of operation of each engine. Said records shall be maintained on site or in a readily accessible off-site location maintained by the registrant for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

5.5. Reporting Requirements

5.5.1. See Facility-Wide Reporting Requirements Section 3.6.

6.0. Source-Specific Requirements (Tanks)

6.1. Limitations and Standards

6.1.1. All tanks in the General Permit Registration application will be listed in Section 1.0 (the equipment table) of the issued registration. Tanks that are less than 20,000 gallons should not, as a general rule, have permitted emission limits. Section 1.0 of the issued registration will identify the size of the tank, any controls (such as a floating roof), and may include for tanks of 10,000 gallons or more the expected throughput or turnovers. Depending on the situation, setting a specific permit condition for maximum throughput, turnovers, or a vapor pressure for the tank is acceptable. Such situations would include tanks storing TAPs or HAPs, that are not subject to Rule 27 or a MACT but may be close to the thresholds for these rules. For a source subject to Rule 27 or a MACT storing the pollutant subject to the MACT or Rule 27 it may be appropriate to have emission limits for the regulated pollutant and the appropriate MRR to show compliance.

6.1.2. Maximum Tank Throughput Limitation. For tanks subject to the maximum tank throughput limits, the maximum tank throughput for these tanks shall not exceed the throughput recorded with registrant's Class II General Permit Registration without effecting a modification or administrative update. Compliance with the Maximum Yearly Tank Throughput Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the tank throughput at any given time during the previous twelve consecutive calendar months.

6.1.3. Regulated Pollutant Limitation. The registrant shall not cause, suffer, allow or permit emissions of VOC and aggregate emissions of hazardous air pollutants (HAPs), from any tank listed in the General Permit Registration to exceed the potential to emit (pounds per hour and tons per year) recorded with the registrant's Class II General Permit Registration Application.

6.2. Monitoring Requirements

6.2.1. See Facility-Wide Monitoring Requirements.

6.3. Testing Requirements

6.3.1. See Facility-Wide Testing Requirements.

6.4. Recordkeeping Requirements

6.4.1. The registrant shall maintain a record of the tank throughput for tanks with maximum throughput limits, to demonstrate compliance with section 6.1.2 of this permit. Said records shall be maintained on site or in a readily accessible off-site location maintained by the registrant for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

6.5. Reporting Requirements

6.5.1. See Facility-Wide Reporting Requirements.

7.0 Source-Specific Requirements (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40CFR60 Subpart IIII))

7.1. Limitations and Standards

7.1.1. Maximum Yearly Operation Limitation. The maximum yearly hours of operation for any emergency generator listed in the General Permit Registration application shall not exceed 500 hours per year. Compliance with the Maximum Yearly 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.

7.1.2. **Regulated Pollutant Limitation**

The registrant shall not cause, suffer, allow or permit emissions of PM, PM_{10}, VOC, SO_2, NO_X, CO, and aggregate emissions of hazardous air pollutants (HAPs), from any emergency generator listed in the General Permit Registration to exceed the potential to emit (pounds per hour and tons per year) recorded with the registrant's Class II General Permit Registration Application.

7.1.3. **Recycled or Used Oil**

a. The registrant shall not receive, store, burn or fire any recycled or used oil in the emergency generator registered herein which is considered a hazardous waste or does not meet the used oil specifications below (40 C.F.R. 279.11, Table 1). The burning of used or recycled oil which does not meet these specifications shall constitute a violation of 45CSR25, 33CSR20 and the requirements, provisions, standards and conditions of this Class II General Permit.

Constituent or Property	Maximum Allowable Specification
Arsenic	5.0 ppm
Cadmium	2.0 ppm
Chromium	10.0 ppm
Lead	100.0 ppm
PCBs	2.0 ppm
Total Halogen	4000.0 ppm maximum
Mercury	0.20 ppm
Flash Point	100.0°F minimum

b. Recycled or used oil with a Total Halogen content greater than 1000.0 ppm is presumed to be a hazardous waste under the rebuttable presumption provided in 40 C.F.R. 279.10(b)(1)(ii). Therefore, the registrant may receive, store and burn recycled or used oil exceeding 1000.0 ppm Total Halogen (but less than 4000.0 ppm maximum) only if the supplier or marketer has demonstrated that the recycled or used oil is not and does not contain hazardous waste.

7.1.4. **Storage Tanks**

a. The content, dimensions, and an analysis showing the capacity of all storage tanks shall be recorded on the Emergency generator Storage Tank Data Sheet in the registrant's Class II General Permit registration;

b. Petroleum liquid storage tank volume shall not exceed 151 m3 (or 39,889 gallons) capacity and maximum true vapor pressure shall not exceed 15.0 kPa (2.17 psia) for petroleum liquid storage tanks greater than 75 m3 (19,812 gallon) capacity; and

c. The registrant shall inform the Secretary of any change in the number of storage tanks or capacities. The registrant may exchange storage tanks of similar volume as required.

7.1.5. **Emission Standards**

Owners and operators of pre-2007 model year emergency stationary CI (compression ignition) ICE (internal combustion engines) 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. [40CFR§60.4205a]

7.1.6. **Emission Standards**

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. [40CFR§60.4205b]

7.1.7. **Emission Standards**

Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants. [40CFR§60.4205c]

7.1.8. **Emission Standards**

Owners and operators of emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in paragraphs (d)(1) and (2) of this section. [40CFR§60.4205 d]

(1) Reduce NOX emissions by 90 percent or more, or limit the emissions of NOX in the stationary CI internal combustion engine exhaust to 1.6 grams per KW-hour (1.2 grams per HP-hour). [40CFR§60.4205d(1)]

(2) Reduce PM emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr). [40CFR§60.4205d(2)]

7.1.9. 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 according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine. [40CFR§60.4206]

7.1.10. **Fuel Requirements**

Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a). [40CFR§60.4207a]

7.1.11. **Fuel Requirements**
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 CFR 80.510(b) for nonroad diesel fuel. [40CFR§60.4207b]

7.1.12. **Fuel Requirements**
Owners and operators of pre-2011 model year stationary CI ICE subject to this subpart may petition the Administrator for approval to use remaining non-compliant fuel that does not meet the fuel requirements of paragraphs (a) and (b) of this section beyond the dates required for the purpose of using up existing fuel inventories. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator. [40CFR§60.4207c]

7.1.13. **Fuel Requirements**
Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in this section. [40CFR§60.4207e]

7.1.14. After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines. [40CFR§60.4208a]

7.1.15. After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines. [40CFR§60.4208b]

7.1.16. In addition to the requirements specified in §§60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (f) of this section after the dates specified in paragraphs (a) through (f) of this section. [40CFR§60.4208g]

7.1.17. The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location. [40CFR§60.4208h]

7.1.18. 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. [40CFR§60.4209]

7.1.19. If you are an owner or operator of an emergency stationary CI internal combustion engine, you must install a non-resettable hour meter prior to startup of the engine. [40CFR§60.4209a]

7.1.20. If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. [40CFR§60.4209b]

7.1.21. If you are an owner or operator and must comply with the emission standards specified in this subpart, you must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may

only change those settings that are permitted by the manufacturer. You must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you. [40CFR§60.4211a]

7.1.22. 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. [40CFR§60.4211b]

(1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications. [40CFR§60.4211b1]

(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. [40CFR§60.4211b2]

(3) Keeping records of engine manufacturer data indicating compliance with the standards.[40CFR§60.4211b3]

(4) Keeping records of control device vendor data indicating compliance with the standards.[40CFR§60.4211b4]

(5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in §60.4212, as applicable. [40CFR§60.4211b5]

7.1.23. 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 specifications. [40CFR§60.4211c]

7.1.24. If you are an owner or operator and must comply with the emission standards specified in §60.4204(c) or §60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section. [40CFR§60.4211d]

(1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in §60.4213. [40CFR§60.4211d1]

(2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(I) through (v) of this section. [40CFR§60.4211d2]

(i) Identification of the specific parameters you propose to monitor continuously; [40CFR§60.4211d2(I)]

(ii) A discussion of the relationship between these parameters and NOX and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit NOX and PM emissions; [40CFR§60.4211d2(ii)]

(iii) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations; [40CFR§60.4211d2(iii)]

(iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and [40CFR§60.4211d2(iv)]

(v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters. [40CFR§60.4211d2(v)]

7.1.25. Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. Anyone 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 year. For owners and operators of emergency engines meeting standards under §60.4205 but not §60.4204, any operation other than emergency operation, and maintenance and testing as permitted in this section, is prohibited. [40CFR§60.4211e]

7.2. Testing Requirements

At the time a registered emergency generator is in compliance with an applicable emission standard and at reasonable times to be determined by the Secretary thereafter, appropriate tests consisting of visual determinations or conventional in-stack measurements or such other tests as the Secretary may specify shall be conducted to determine such compliance. The registrant may also be required by the Secretary to collect, report and maintain additional data on the operation and compliance of any registered emergency generator.

7.2.1. **Stack Testing**

For cause, the Secretary may request the registrant to install such stack gas monitoring devices as the Secretary deems necessary to determine continuing compliance. The data from such devices shall be readily available for review on-site or such other reasonable location that the Secretary may specify. At the request of the Secretary, such data shall be made available for inspection or copying and the Secretary may require periodic submission of excess emission reports (45CSR13).

7.2.2. **Notification of Compliance Testing**

For any compliance test to be conducted by the registrant as set forth in this section, a test protocol shall be submitted to the Secretary at least thirty (30) calendar days prior to the scheduled date of the test. Such compliance test protocol shall be subject to approval by the Secretary. The registrant

shall notify the Secretary at least fifteen (15) calendar days in advance of actual compliance test dates and times during which the test (or tests) will be conducted.

7.2.3. **Alternative Test Methods**
The Secretary may require a different test method or approve an alternative method in light of any technology advancements that may occur and may conduct such other tests as may be deem necessary to evaluate air pollution emissions.

7.2.4. 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 (d) of this section. [40CFR§60.4212]

a. The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F. [40CFR§60.4212a]

b. Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039. [40CFR§60.4212b]

c. Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

NTE Requirement for each pollutant - (1.25) x (STD)

Where:
STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in §60.4213 of this subpart, as appropriate. [40CFR§60.4212c]

d. Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in §60.4204(a), §60.4205(a), or §60.4205(c), determined from the equation in paragraph (c) of this section.

Where:
STD = The standard specified for that pollutant in §60.4204(a), §60.4205(a), or §60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) may follow the testing procedures specified in §60.4213, as appropriate. [40CFR§60.4212d]

7.2.5. Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (d) of this section. [40CFR§60.4213]

a. Each performance test must be conducted according to the requirements in §60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load. [40CFR§60.4213a]

b. You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). [40CFR§60.4213b]

c. You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must last at least 1 hour. [40CFR§60.4213c]

d. To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section. [40CFR§60.4213d]

(1) You must use Equation 2 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \qquad \text{(Eq. 2)}$$

Where:
Ci = concentration of NOX or PM at the control device inlet,
Co = concentration of NOX or PM at the control device outlet, and
R = percent reduction of NOX or PM emissions.

(2) You must normalize the NOX or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen (O2) using Equation 3 of this section, or an equivalent percent carbon dioxide (CO2) using the procedures described in paragraph (d)(3) of this section.

Where:

$$C_{adj} = C_d \frac{5.9}{20.9 - \%\,O_2} \qquad \text{(Eq. 3)}$$

Cadj = Calculated NOX or PM concentration adjusted to 15 percent O2.
Cd = Measured concentration of NOX or PM, uncorrected.
5.9 = 20.9 percent O2−-15 percent O2, the defined O2 correction value, percent.
%O2 = Measured O2 concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent O2 and CO2 concentration is measured in lieu of O2 concentration measurement, a CO2 correction

factor is needed. Calculate the CO2 correction factor as described in paragraphs (d)(3)(I) through (iii) of this section.

(i) Calculate the fuel-specific Fo value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209_{Fd}}{F_c} \qquad \text{(Eq. 4)}$$

Where:
Fo = Fuel factor based on the ratio of O2 volume to the ultimate CO2 volume produced by the fuel at zero percent excess air.
0.209 = Fraction of air that is O2, percent/100.
Fd = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm 3 /J (dscf/10 6 Btu).
Fc = Ratio of the volume of CO2 produced to the gross calorific value of the fuel from Method 19, dsm 3 /J (dscf/10 6 Btu).

(ii) Calculate the CO2 correction factor for correcting measurement data to 15 percent O2, as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \qquad \text{(Eq. 5)}$$

Where:
XCO2 = CO2 correction factor, percent.
5.9 = 20.9 percent O2−-15 percent O2, the defined O2 correction value, percent.

(iii) Calculate the NOX and PM gas concentrations adjusted to 15 percent O2 using CO2 as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \qquad \text{(Eq. 6)}$$

Where:
Cadj = Calculated NOX or PM concentration adjusted to 15 percent O2.
Cd = Measured concentration of NOX or PM, uncorrected.
%CO2 = Measured CO2 concentration, dry basis, percent.

7.2.6. To determine compliance with the NOX mass per unit output emission limitation, convert the concentration of NOX in the engine exhaust using Equation 7 of this section: [40CFR§60.4213e]

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{\text{KW-hour}} \qquad \text{(Eq. 7)}$$

Where:
ER = Emission rate in grams per KW-hour.
Cd = Measured NOX concentration in ppm.
1.912x10−-3 = Conversion constant for ppm NOX to grams per standard cubic meter at 25 degrees Celsius.
Q = Stack gas volumetric flow rate, in standard cubic meter per hour.
T = Time of test run, in hours.
KW-hour = Brake work of the engine, in KW-hour.

7.2.7. To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

$$ER = \frac{C_{adj} \times Q \times T}{\text{KW-hour}} \qquad (Eq. 8)$$

Where:
ER = Emission rate in grams per KW-hour.
Cadj = Calculated PM concentration in grams per standard cubic meter.
Q = Stack gas volumetric flow rate, in standard cubic meter per hour.
T = Time of test run, in hours.
KW-hour = Energy output of the engine, in KW.

7.3. Recordkeeping and Reporting Requirements

7.3.1. **Records, Operation and Compliance**

a. For the purpose of determining compliance with the Maximum Yearly Operation Limitation, a person designated by a Responsible Official or Authorized Representative shall maintain records of hours of operation utilizing copies of Attachment A - Monthly Hours of Operation Record (or a similar form containing the same information);

b. For the purpose of determining compliance with the Fuel Type Limitation, a person designated by a Responsible Official or Authorized Representative shall maintain records of quantity and type of fuel burned.

c. For the purpose of determining compliance with the Regulated Pollutant Limitation for SO2, a person designated by a Responsible Official or Authorized Representative shall maintain records of the maximum sulfur content on a per-shipment basis for fuel oil, recycled or used oil or annual certification of the sulfur content from the supplier for pipeline quality natural gas.

d. Said records shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the registrant. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

7.3.2. **Monitoring Information**

The registrant shall keep the following records of monitoring information:

a. The date, place as defined in this Class II General Permit and time of sampling 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.

7.3.3. **Equipment Maintenance Records**

a. The registrant shall maintain maintenance records relating to failure and/or repair of emergency generator equipment. In the event of equipment or system failure, these records shall document the registrant's effort to maintain proper and effective operation of such equipment and/or systems;

b. Said records shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the registrant. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

7.3.4. **Retention of Records**

Said records shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the registrant. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

7.3.5. **Compliance Testing**

The owner or operator of any emergency generator shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in Section

7.3.6. **Certification of Information**

Any application form, report, or compliance certification required by this General Permit to be submitted to the Division of Air Quality 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.

7.3.7. 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. [40CFR§60.4214b]

7.3.8. If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached. [40CFR§60.4214c]

8.0. Source-Specific Requirements (Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (40CFR60 Subpart JJJJ))

8.1. Limitations and Standards

8.1.1. The provisions of this subpart are applicable to owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified below. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

a. Owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured:

1. On or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);

2. on or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP;

3. on or after July 1, 2008, for engines with a maximum engine power less than 500 HP; or

4. on or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP).

b. Owners and operators of stationary SI ICE that commence modification or reconstruction after June 12, 2006.

[40CFR§60.4230(a)]

8.1.2. The provisions of this subpart are not applicable to stationary SI ICE being tested at an engine test cell/stand. [40CFR§60.4230(b)]

8.1.3. If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable. [40CFR§60.4230(c)]

8.1.4. For the purposes of this subpart, stationary SI ICE using alcohol-based fuels are considered gasoline engines. [40CFR§60.4230(d)]

8.1.5. Stationary SI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR parts 90 and 1048, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security. [40CFR§60.4230(e)]

8.1.6. Owners and operators of facilities with internal combustion engines that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been

properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines. [40CFR§60.4230(f)]

8.2. Emission Standards for Owners and Operators

8.2.1. Owners and operators of stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) manufactured on or after July 1, 2008, must comply with the emission standards in §60.4231(a) for their stationary SI ICE. [40CFR§60.4233(a)]

8.2.2. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) manufactured on or after the applicable date in §60.4230(a)(4) that use gasoline must comply with the emission standards in §60.4231(b) for their stationary SI ICE. [40CFR§60.4233(b)]

8.2.3. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) manufactured on or after the applicable date in §60.4230(a)(4) that are rich burn engines that use LPG must comply with the emission standards in §60.4231(c) for their stationary SI ICE. [40CFR§60.4233(c)]

8.2.4. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards for field testing in 40 CFR 1048.101(c) for their non-emergency stationary SI ICE and with the emission standards in Table 1 to this subpart for their emergency stationary SI ICE. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) manufactured prior to January 1, 2011, that were certified to the standards in Table 1 to this subpart applicable to engines with a maximum engine power greater than or equal to 100 HP and less than 500 HP, may optionally choose to meet those standards. [40CFR§60.4233(d)]

8.2.5. Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE. For owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 HP (except gasoline and rich burn engines that use LPG) manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO) standard above the standard in Table 1 to this subpart, then the owners and operators may meet the CO certification (not field testing) standard for which the engine was certified. [40CFR§60.4233(e)]

8.2.6. Owners and operators of any modified or reconstructed stationary SI ICE subject to this subpart must meet the requirements as specified in paragraphs (f)(1) through (5) of this section. [40CFR§60.4233(f)]

a. Owners and operators of stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (a) of this section.

b. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that use gasoline engines, that are modified or reconstructed after June 12, 2006,

must comply with the same emission standards as those specified in paragraph (b) of this section.

c. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are rich burn engines that use LPG, that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (c) of this section.

d. Owners and operators of stationary SI natural gas and lean burn LPG engines with a maximum engine power greater than 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (d) or (e) of this section, except that such owners and operators of non-emergency engines and emergency engines greater than or equal to 130 HP must meet a nitrogen oxides (NO_X) emission standard of 3.0 grams per HP-hour (g/HP-hr), a CO emission standard of 4.0 g/HP-hr (5.0 g/HP-hr for non-emergency engines less than 100 HP), and a volatile organic compounds (VOC) emission standard of 1.0 g/HP-hr, or a NO_X emission standard of 250 ppmvd at 15 percent oxygen (O_2), a CO emission standard 540 ppmvd at 15 percent O_2(675 ppmvd at 15 percent $O_2$for non-emergency engines less than 100 HP), and a VOC emission standard of 86 ppmvd at 15 percent O_2, where the date of manufacture of the engine is:

1. Prior to July 1, 2007, for non-emergency engines with a maximum engine power greater than or equal to 500 HP.
2. Prior to July 1, 2008, for non-emergency engines with a maximum engine power less than 500 HP.
3. Prior to January 1, 2009, for emergency engines.

e. Owners and operators of stationary SI landfill/digester gas ICE engines with a maximum engine power greater than 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (e) of this section for stationary landfill/digester gas engines.
[40CFR§60.4233f]

8.2.7. Owners and operators of stationary SI wellhead gas ICE engines may petition the Administrator for approval on a case-by-case basis to meet emission standards no less stringent than the emission standards that apply to stationary emergency SI engines greater than 25 HP and less than 130 HP due to the presence of high sulfur levels in the fuel, as specified in Table 1 to this subpart. The request must, at a minimum, demonstrate that the fuel has high sulfur levels that prevent the use of after treatment controls and also that the owner has reasonably made all attempts possible to obtain an engine that will meet the standards without the use of after treatment controls. The petition must request the most stringent standards reasonably applicable to the engine using the fuel. [40CFR§60.4233(g)]

8.2.8. Owners and operators of stationary SI ICE that are required to meet standards that reference 40 CFR 1048.101 must, if testing their engines in use, meet the standards in that section applicable to field testing, except as indicated in paragraph (e) of this section. [40CFR§60.4233(h)]

8.2.9. Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine. [40CFR§60.4234]

8.3. Other Requirements for Owners and Operators

8.3.1. Owners and operators of stationary SI ICE subject to this subpart that use gasoline must use gasoline that meets the per gallon sulfur limit in 40 CFR 80.195. [40CFR§60.4235]

8.3.2. After July 1, 2010, owners and operators may not install stationary SI ICE with a maximum engine power of less than 500 HP that do not meet the applicable requirements in §60.4233. [40CFR§60.4236(a)]

8.3.3. After July 1, 2009, owners and operators may not install stationary SI ICE with a maximum engine power of greater than or equal to 500 HP that do not meet the applicable requirements in §60.4233, except that lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP that do not meet the applicable requirements in §60.4233 may not be installed after January 1, 2010. [40CFR§60.4236(b)]

8.3.4. For emergency stationary SI ICE with a maximum engine power of greater than 19 KW (25 HP), owners and operators may not install engines that do not meet the applicable requirements in §60.4233 after January 1, 2011. [40CFR§60.4236(c)]

8.3.5. In addition to the requirements specified in §§60.4231 and 60.4233, it is prohibited to import stationary SI ICE less than or equal to 19 KW (25 HP), stationary rich burn LPG SI ICE, and stationary gasoline SI ICE that do not meet the applicable requirements specified in paragraphs (a), (b), and (c) of this section, after the date specified in paragraph (a), (b), and (c) of this section. [40CFR§60.4236(d)]

8.3.6. The requirements of this section do not apply to owners and operators of stationary SI ICE that have been modified or reconstructed, and they do not apply to engines that were removed from one existing location and reinstalled at a new location. [40CFR§60.4236(e)]

8.3.7. Starting on July 1, 2010, if the emergency stationary SI internal combustion engine that is greater than or equal to 500 HP that was built on or after July 1, 2010, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter. [40CFR§60.4237(a)]

8.3.8. Starting on January 1, 2011, if the emergency stationary SI internal combustion engine that is greater than or equal to 130 HP and less than 500 HP that was built on or after January 1, 2011, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter. [40CFR§60.4237(b)]

8.3.9. If you are an owner or operator of an emergency stationary SI internal combustion engine that is less than 130 HP, was built on or after July 1, 2008, and does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter upon startup of your emergency engine. [40CFR§60.4237(c)]

8.4. Compliance Requirements for Owners and Operators

8.4.1. If you are an owner or operator of a stationary SI internal combustion engine that is manufactured after July 1, 2008, and must comply with the emission standards specified in §60.4233(a) through (c), you must comply by purchasing an engine certified to the emission standards in §60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. You must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to

you. If you adjust engine settings according to and consistent with the manufacturer's instructions, your stationary SI internal combustion engine will not be considered out of compliance. In addition, you must meet one of the requirements specified in (a)(1) and (2) of this section.

a. If you operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator.

b. If you do not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, your engine will be considered a non-certified engine, and you must demonstrate compliance according to (a)(2)(i) through (iii) of this section, as appropriate.

1. If you are an owner or operator of a stationary SI internal combustion engine 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, but no performance testing is required if you are an owner or operator.
2. If you are an owner or operator of a stationary SI 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 within 1 year of engine startup to demonstrate compliance.
3. If you are an owner or operator of a stationary SI 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 within 1 year of engine startup and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

[40CFR§60.4243(a)]

8.4.2. If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) and (2) of this section.

a. Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in paragraph (a) of this section.

b. Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in §60.4233(d) or (e) and according to the requirements specified in §60.4244, as applicable, and according to paragraphs (b)(2)(i) and (ii) of this section.

1. If you are an owner or operator of a stationary SI internal combustion engine greater than 25 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.

2. If you are an owner or operator of a stationary SI 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 and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

[40CFR§60.4243(b)]

8.4.3. If you are an owner or operator of a stationary SI internal combustion engine that must comply with the emission standards specified in §60.4233(f), you must demonstrate compliance according paragraph (b)(2)(i) or (ii) of this section, except that if you comply according to paragraph (b)(2)(i) of this section, you demonstrate that your non-certified engine complies with the emission standards specified in §60.4233(f). [40CFR§60.4243(c)]

8.4.4. Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. 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 year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving 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. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited. [40CFR§60.4243(d)]

8.4.5. Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233. [40CFR§60.4243(e)]

8.4.6. If you are an owner or operator of a stationary SI internal combustion engine that is less than or equal to 500 HP and you purchase a non-certified engine or you do not operate and maintain your certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions, you are required to perform initial performance testing as indicated in this section, but you are not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a). [40CFR§60.4243(f)]

8.4.7. It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated

appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [40CFR§60.4243(g)]

8.4.8. If you are an owner/operator of an stationary SI internal combustion engine with maximum engine power greater than or equal to 500 HP that is manufactured after July 1, 2007 and before July 1, 2008, and must comply with the emission standards specified in sections 60.4233(b) or (c), you must comply by one of the methods specified in paragraphs (h)(1) through (h)(4) of this section.

a. Purchasing an engine certified according to 40 CFR part 1048. The engine must be installed and configured according to the manufacturer's specifications.

b. 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.

c. Keeping records of engine manufacturer data indicating compliance with the standards.

d. Keeping records of control device vendor data indicating compliance with the standards.

[40CFR§60.4243(h)]

8.5. Testing Requirements for Owners and Operators

8.5.1. Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of this section.

a. Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to this subpart. [40CFR§60.4244(a)]

b. You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine. [40CFR§60.4244(b)]

c. You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour. [40CFR§60.4244(c)]

d. To determine compliance with the NO_X mass per unit output emission limitation, convert the concentration of NO_X in the engine exhaust using Equation 1 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP - hr} \qquad (Eq. 1)$$

Where:
ER = Emission rate of NO_X in g/HP-hr.

C_d= Measured NO_X concentration in parts per million by volume (ppmv).

1.912×10−3 = Conversion constant for ppm NO_X to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

[40CFR§60.4244(d)]

d. To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP - hr} \qquad (Eq. 2)$$

Where:
ER = Emission rate of CO in g/HP-hr.

C_d= Measured CO concentration in ppmv.

1.164×10−3 = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

[40CFR§60.4244(e)]

e. For purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

$$ER = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{HP - hr} \qquad (Eq. 3)$$

Where:
ER = Emission rate of VOC in g/HP-hr.

C_d= VOC concentration measured as propane in ppmv.

1.833×10−3 = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

[40CFR§60.4244(f)]

f. If the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

$$RF_i = \frac{C_{Mi}}{C_{Ai}} \qquad \text{(Eq. 4)}$$

Where:
RF_i= Response factor of compound i when measured with EPA Method 25A.

C_{Mi}= Measured concentration of compound i in ppmv as carbon.

C_{Ai}= True concentration of compound i in ppmv as carbon.

$$C_{icorr} = RF_i \times C_{imeas} \qquad \text{(Eq. 5)}$$

Where:
C_{icorr}= Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

C_{imeas}= Concentration of compound i measured by EPA Method 320, ppmv as carbon.

$$C_{Peq} = 0.6098 \times C_{icorr} \qquad \text{(Eq. 6)}$$

Where:
C_{Peq}= Concentration of compound i in mg of propane equivalent per DSCM.

[40CFR§60.4244(g)]

8.6. Notification, Reports, and Records for Owners and Operators

8.6.1. Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

a. Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of this section.

1. All notifications submitted to comply with this subpart and all documentation supporting any notification.
2. Maintenance conducted on the engine.
3. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90 and 1048.
4. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.
[40CFR§60.4245(a)]

b. For all stationary SI emergency ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than or equal to 130 HP and less than 500 HP manufactured on or after July 1, 2011 that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the owner or operator of 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. [40CFR§60.4245(b)]

c. Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in §60.4231 must submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (c)(1) through (5) of this section.

1. Name and address of the owner or operator;
2. The address of the affected source;
3. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
4. Emission control equipment; and
5. Fuel used.

[40CFR§60.4245(c)]

d. Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed. [40CFR§60.4245(d)]

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature[1] _____ _____
(please use blue ink) Responsible Official or Authorized Representative Date

Name & Title _____ _____
(please print or type) Name Title

Telephone No. _____ Fax No. _____

[1] This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), or

(ii) the delegation of authority to such representative is approved in advance by the Director;

b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of U.S. EPA); or

d. The designated representative delegated with such authority and approved in advance by the Director