

Northwest Gas Processing, LLC (NWGP)
Highway 30 Treating Facility
Facility ID: 075-00018
Permit Number: P-2013.0059
4341 Hwy 30 South
New Plymouth (Payette County), Idaho 83655

Idaho Department of Environmental Quality
Minor Source Permit to Construct

Volume 1 of 1
Amendment Application

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DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE A Q PROGRAM

Alta Mesa Services, LP
15021 Katy Freeway, 4th Floor
Houston, Texas 77094

IDEQ Minor NSR Revision Application

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INTRODUCTION

SECTION 1.0

NORTHWEST GAS PROCESSING

Highway 30 Treating Facility

PROCESS DESCRIPTION

Raw field gas enters the plant through an 8" gathering line and ball receiver. Liquids are separated from the gas in the Slug Catcher, and level controlled through level control valve where they are pressured to storage tank. The gas vapor leaving passes through a pressure control valve which prevents the pressure from exceeding 575 psig. It next enters the Gas to Gas Exchanger where the gas is cooled to 17 F and then to the Gas Chiller, where the gas is further cooled to -20 F using propane refrigerant. The gas is separated from the condensed natural gas liquids in the Cold Separator, and then delivered to shell side of the Gas to Gas Exchanger and consequently warmed to 50 F. This gas is approximately 95% of the inlet gas and is compressed to pipeline pressure (maximum 850 psig) by compressor(s). The compressors are driven by natural gas powered engines (**EPN: ENG1, ENG2, ENG3 and ENG4**). There are two 200 Mbtu Engine heaters (**EPN: ENG-HTR1 & 2**) which are also natural gas fired which can be used to warm the engines prior to start-up. This heater will rarely be used. The gas then passes through a Filter/Separator to remove particles, oil mist, etc. prior to delivery to Northwest Pipeline.

Liquids from the cold separator flow to the Gas/Liquid Exchanger, where they are warmed to 31 F. The flow is level controlled by a level control valve prior to entering the Glycol Separator. The Glycol Separator is a three phase separator and separates gas, natural gas liquids NGL(s), and glycol. The NGL(s) enter the top of the 10 tray stabilizer and trickle down through the trays. The bottom section of the stabilizer diverts the NGL(s) to the Reboiler, where indirect heat warms the NGL(s) to 180 F. This reboiler (Stabilizer Reboiler Heaters) are a 1500 Mbtu natural gas fired unit (**EPN: STBL-HTR1 & 2**) which vaporizes the ethane and lighter components which travel from tray to tray up the tower warming the incoming NGL(s) and cooling the gas. The gas leaving the stabilizer is ethane rich and is recompressed back to the plant inlet.

The NGL(s) is cooled in an air cooled heat exchanger, as it passes to the storage tank. All vapors are combined and recompressed to the plant inlet for recycling. The fourth throw of the refrigeration compressor which is powered by a 250 HP electric motor.

Ethylene glycol is injected in the gas to gas exchanger and the chiller to inhibit hydrate formation as the inlet gas is cooled. The glycol travels through a series of exchangers and separators where it is separated by gravity from the NGL(s). Glycol exits the glycol separator and travels to a heat exchanger where it is warmed to 100 F by exchange with the hot glycol from the reboiler. This conserves energy and reduces viscosity for improved operation of the glycol filter. The glycol filter has a spun element and removes particles in the glycol 25 micron and larger. The filter is equipped with an air eliminator to remove vapor and maximize the filtration area.

The warm glycol then flows to the top of the packed section of the glycol reboiler where it acts as reflux for the steam generated in the reboiler to minimize glycol vaporization losses. The glycol is heated in the reboilers by two 750 Mbtu per hour (**EPN: RBLR-HTR1 & 2**) direct natural gas fired tube. By operating the reboiler at 235 to 240 F the glycol will maintain a concentration in the 75% range.

Hot glycol from the reboiler accumulates in the surge tank end of the reboiler and then flows to the shell side of the glycol exchanger where it cools to ambient temperature for suction to the glycol pump. The

glycol pump is an electric motor driven plunger type which can boost the glycol up to 1000 psig if necessary. Glycol leaving the pump flows to the injection nozzles which are each sized for 1 gpm a 50 psi differential pressure. The nozzles are inserted into the exchangers with removable holders. Operating under the proper conditions the glycol should be evenly distributed across the face of each tubesheet.

The refrigeration is provided in a typical propane/kettle type system. The compressor lowers the pressure of the kettle thereby lowering the temperature of the bath. Propane from the kettle is compressed to 240 psig by a two stage compressor which is equipped with normal operating and shutdown devices. Propane from compressor discharge is condensed with an aerial electric fan driven cooler. The cooler outlet liquids flow to the propane accumulator.

Propane leaves the accumulator and flows to the liquid/liquid exchanger where it is further cooled by the cold NGL(s). A liquid level control valve maintains the propane level in the chiller.

The propane compressor is driven by a 250 HP electric motor. Fluctuations in the refrigeration load are controlled with a hot gas bypass from compressor discharge to the chiller propane inlet thereby maintaining a minimum suction pressure for the compressor.

Facility Emission Sources:

Source Description	EPN	Source Information
Engines	ENG 1 - 4	Two - 610 hp engines, one – 203 hp, and one – 1380 hp
Reboilers	RBLR-HTR1 & 2	Two – 0.75 MMBtu/hr Reboiler heaters
Stabilizer Heater	STBL-HTR1 & 2	Two – 1.5 MMBtu/hr Stabilizer heater
Condensate Heaters	COND-HTR1 & 2	Two – 1.5 MMBtu/hr Condensate heaters
Engine Heaters	ENG-HTR1 & 2	Two – 0.2 MMBtu/hr Engine heater
Flares	FLR1 & 2	Flare Emissions from Process and Pilot Gas

FACILITY DIAGRAMS

SECTION 2.0

TIMELINE FOR CONSTRUCTION

SECTION 3.0

Timeline for Construction

Start Date	Task	Duration (Days)
Upon permit approval	Excavation	7.5
(Pending DEQ Approval of the PTC)	Gravel Work / Drainage	7.5
	Building – any foundation work	7.5
	Move in equipment	7.5
	Pipe in equipment / Electrical Wiring / Controls	7.5
	Troubleshoot, Train, Startup	7.5
	Construction Completion	
		45 Total Days

The construction process will occur over an estimated 45 day time period. The project will move forward as the Task(s) above are outlined. It is expected that construction will begin immediately upon permit approval. The beginning and ending dates are restricted by written approval from DEQ authorizing the construction process to be initiated.

EMISSIONS INVENTORY

SECTION 4.0

Northwest Gas Processing, LLC
Hwy 30 Treating Facility - Emission Summary

Version: 11/30/2015

Source Description	Engine 1		Engine 2		Engine 3		Engine 4		Heaters		Flare 1		Flare 2		Summary of Emissions	
Source Information	610 hp Engine		610 hp Engine		1380 hp Engine		203 hp Engine		Process Style Heaters		High Pressure Flare Emissions		Low Pressure Flare Emissions			
EPNs	ENG1		ENG2		ENG3		ENG4		See Heater Page		FLR1		FLR2			
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
VOC_{total}	0.6718	2.9425	0.6718	2.9425	1.5198	6.6568	0.1565	0.6855	0.0353	0.1547	1.1546	5.0570	5.1479	22.5479	9.3577	40.9869
NO_x	1.3436	5.8850	1.3436	5.8850	3.0396	13.3137	0.4471	1.9585	0.6423	2.8132	0.4044	1.7714	0.6048	2.6489	7.8255	34.2756
CO	1.3436	5.8850	1.3436	5.8850	3.0396	13.3137	0.8943	3.9169	0.5395	2.3631	1.8437	8.0755	2.7571	12.0759	11.7614	51.5151
PM₁₀	0.0924	0.4047	0.0924	0.4047	0.2203	0.9651	0.0310	0.1359	0.0488	0.2138	0.0100	0.0437	0.0100	0.0437	0.5049	2.2116
PM_{2.5}	0.0924	0.4047	0.0924	0.4047	0.2203	0.9651	0.0310	0.1359	0.0366	0.1604	0.0100	0.0437	0.0100	0.0437	0.4927	2.1582
SO₂	0.0028	0.0123	0.0028	0.0123	0.0067	0.0292	0.0009	0.0041	0.0039	0.0169	0.0032	0.0138	0.0032	0.0138	0.0234	0.1023

Northwest Gas Processing, LLC
Hwy 30 Treating Facility - Emission Summary
Version: 11/30/2015

Source Description	Engine 1		Engine 2		Engine 3		Engine 4		Heaters		Flare 1		Flare 2		Summary of Emissions	
Source Information	610 hp Engine		610 hp Engine		1380 hp Engine		203 hp Engine		Process Style Heaters		High Pressure Flare Emissions		Low Pressure Flare Emissions			
EPNs	ENG1		ENG2		ENG3		ENG4		See Heater Page		FLR1		FLR2			
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY		
VOC_{total}	0.6718	2.9425	0.6718	2.9425	1.5198	6.6568	0.1565	0.6855	0.0353	0.1547	1.1546	5.0570	5.1479	22.5479	9.3577	40.9869
NOx	1.3436	5.8850	1.3436	5.8850	3.0396	13.3137	0.4471	1.9585	0.6423	2.8132	0.4044	1.7714	0.6048	2.6489	7.8255	34.2756
CO	1.3436	5.8850	1.3436	5.8850	3.0396	13.3137	0.8943	3.9169	0.5395	2.3631	1.8437	8.0755	2.7571	12.0759	11.7614	51.5151
PM10	0.0924	0.4047	0.0924	0.4047	0.2203	0.9651	0.0310	0.1359	0.0488	0.2138	0.0100	0.0437	0.0100	0.0437	0.5049	2.2116
PM2.5	0.0924	0.4047	0.0924	0.4047	0.2203	0.9651	0.0310	0.1359	0.0366	0.1604	0.0100	0.0437	0.0100	0.0437	0.4927	2.1582
SO₂	0.0028	0.0123	0.0028	0.0123	0.0067	0.0292	0.0009	0.0041	0.0039	0.0169	0.0032	0.0138	0.0032	0.0138	0.0234	0.1023

Source Description	Engine 1		Engine 2		Engine 3		Engine 4		Heaters		Flare 1		Flare 2			
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY								
n-Hexane	0.0053	0.0231	0.0053	0.0231	0.0126	0.0552	0.0018	0.0078	0.0116	0.0506	0.0372	0.1630	0.1828	0.8008	0.2566	1.1237
224-Trimethylpentane	0.0012	0.0052	0.0012	0.0052	0.0028	0.0124	0.0004	0.0018							0.0056	0.0246
Toluene	0.0027	0.0116	0.0027	0.0116	0.0063	0.0277	0.0009	0.0039	2.18E-05	9.56E-05	0.0025	0.0108	0.0036	0.0159	0.0187	0.0817
Ethylbenzene	0.0002	0.0008	0.0002	0.0008	0.0005	0.0020	0.0001	0.0003			0.0016	0.0069	0.0009	0.0037	0.0033	0.0146
Xylene	0.0009	0.0041	0.0009	0.0041	0.0022	0.0097	0.0003	0.0014			0.0032	0.0139	0.0027	0.0118	0.0103	0.0449
Acrolein	0.0245	0.1072	0.0245	0.1072	0.0583	0.2556	0.0082	0.0360							0.1155	0.5059
1,2-dichloropropane	0.0001	0.0006	0.0001	0.0006	0.0003	0.0013	0.0000	0.0002							0.0006	0.0026
Biphenyl	0.0010	0.0044	0.0010	0.0044	0.0024	0.0105	0.0003	0.0015							0.0048	0.0209
Chlorobenzene	0.0001	0.0006	0.0001	0.0006	0.0003	0.0015	0.0000	0.0002							0.0007	0.0030
Chloroethane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000							0.0000	0.0002
Cyclopentane	0.0011	0.0047	0.0011	0.0047	0.0026	0.0113	0.0004	0.0016							0.0051	0.0223
Methanol	0.0146	0.0638	0.0146	0.0638	0.0347	0.1521	0.0049	0.0214							0.0688	0.3012
Methylcyclohexane	0.0059	0.0256	0.0059	0.0256	0.0140	0.0612	0.0020	0.0086			0.0078	0.0342			0.0354	0.1552
n-Nonane	0.0005	0.0023	0.0005	0.0023	0.0012	0.0055	0.0002	0.0008			0.0015	0.0065	0.0197	0.0864	0.0237	0.1037
n-Octane	0.0017	0.0073	0.0017	0.0073	0.0040	0.0175	0.0006	0.0025			0.0111	0.0487	0.0762	0.3339	0.0953	0.4172
n-pentane	0.0124	0.0542	0.0124	0.0542	0.0295	0.1293	0.0042	0.0182	0.0167	0.07314	0.0824	0.3608	0.4107	1.7990	0.5682	2.4889
Naphthalene	0.0005	0.0020	0.0005	0.0020	0.0011	0.0048	0.0002	0.0007	3.9E-06	1.7E-05					0.0022	0.0096
Phenol	0.0001	0.0005	0.0001	0.0005	0.0003	0.0012	0.0000	0.0002							0.0005	0.0024
Heptane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0310	0.1359	0.2946	1.2905	0.3257	1.4264
cyclohexane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0112	0.0491			0.0112	0.0491

Source Description	Engine 1		Engine 2		Engine 3		Engine 4		Heaters		Flare 1		Flare 2			
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY			lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Formaldehyde	0.2514	1.1009	0.2514	1.1009	0.5994	2.6253	0.0844	0.3698	4.82E-04	2.11E-03					1.1870	5.1990
Benzene	0.0075	0.0329	0.0075	0.0329	0.0179	0.0786	0.0025	0.0111	1.35E-05	5.91E-05	0.0047	0.0205	0.0033	0.0145	0.0435	0.1906
acetaldehyde	0.0398	0.1743	0.0398	0.1743	0.0949	0.4157	0.0134	0.0586							0.1879	0.8228
1,1-dichloroethane	0.0001	0.0005	0.0001	0.0005	0.0003	0.0012	0.0000	0.0002							0.0005	0.0023
1,2-dichloroethane	0.0001	0.0005	0.0001	0.0005	0.0003	0.0012	0.0000	0.0002							0.0005	0.0023
1,1,2-Trichloroethane	0.0002	0.0007	0.0002	0.0007	0.0004	0.0016	0.0001	0.0002							0.0007	0.0031
1,1,2,2-Tetrachloroethane	0.0002	0.0008	0.0002	0.0008	0.0005	0.0020	0.0001	0.0003							0.0009	0.0039
1,3-butadiene	0.0032	0.0138	0.0032	0.0138	0.0075	0.0330	0.0011	0.0046							0.0149	0.0653
1,3-dichloropropene	0.0001	0.0006	0.0001	0.0006	0.0003	0.0013	0.0000	0.0002							0.0006	0.0026
Benzo(a)pyrene	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	7.7E-09	3.4E-08					0.0000	0.0000
Carbon Tetrachloride	0.0002	0.0008	0.0002	0.0008	0.0004	0.0018	0.0001	0.0003							0.0008	0.0036
Chloroform	0.0001	0.0006	0.0001	0.0006	0.0003	0.0014	0.0000	0.0002							0.0006	0.0028
Ethylene Dibromide	0.0002	0.0009	0.0002	0.0009	0.0005	0.0022	0.0001	0.0003							0.0010	0.0044
Methylene Chloride	0.0002	0.0009	0.0002	0.0009	0.0005	0.0020	0.0001	0.0003							0.0009	0.0041
PAH	0.0007	0.0029	0.0007	0.0029	0.0016	0.0070	0.0002	0.0010							0.0032	0.0139
Vinyl Chloride	0.0001	0.0003	0.0001	0.0003	0.0002	0.0007	0.0000	0.0001							0.0003	0.0015

EPN: ENG1
 Caterpillar G398 TA HCR

(Type Engine)

Engine SN:

Man. Date:

Manufacturer's Rated Horsepower

610 hp

Fuel Input

0.007804 MMBtu/hp-hr

Operating Schedule: 8760 hours annually

Pollutant	Reference	Control Efficiency	FACTORS			EMISSIONS	
			grams/bhp-hr	lean	rich	lbs/hr	TPY
				lb/MMBtu	lb/MMBtu		
VOC _{total}	Manuf. Engine Data	----	0.50			0.6718	2.9425
NOx	Manuf. Engine Data	----	1.00			1.3436	5.8850
CO	Manuf. Engine Data	----	1.00			1.3436	5.8850
PM10	AP-42	----		0.00999	0.01941	0.0924	0.4047
PM2.5	AP-42	----		0.00999	0.01941	0.0924	0.4047
SO2	AP-42	----		0.00059	0.00059	0.0028	0.0123
HCHO	AP-42	----		0.05280	0.02050	0.2514	1.1009
Benzene	AP-42	----		0.00044	0.00158	0.0075	0.0329
Acetaldehyde	AP-42	----		0.00836	0.00279	0.0398	0.1743
1,1-dichloroethane	AP-42	----		0.00002	0.00001	0.0001	0.0005
1,2-dichloroethane	AP-42	----		0.00002	0.00001	0.0001	0.0005
1,1,2-Trichloroethane	AP-42	----		0.00003	0.00002	0.0002	0.0007
1,1,2,2-Tetrachloroethane	AP-42	----		0.00004	0.00003	0.0002	0.0008
1,3-butadiene	AP-42	----		0.00027	0.00066	0.0032	0.0138
1,3-dichloropropene	AP-42	----		0.00003	0.00001	0.0001	0.0006
Benzo(e)pyrene	AP-42	----		0.00000		0.0000	0.0000
Carbon Tetrachloride	AP-42	----		0.00004	0.00002	0.0002	0.0008
Chloroform	AP-42	----		0.00003	0.00001	0.0001	0.0006
Ethylene Dibromide	AP-42	----		0.00004	0.00002	0.0002	0.0009
Methylene Chloride	AP-42	----		0.00002	0.00004	0.0002	0.0009
PAH	AP-42	----		0.00003	0.00014	0.0007	0.0029
Vinyl Chloride	AP-42	----		0.00001	0.00001	0.0001	0.0003
n-Hexane	AP-42	----		0.00111		0.0053	0.0231
2,2,4-Trimethylpentane	AP-42	----		0.00025		0.0012	0.0052
Toluene	AP-42	----		0.00041	0.00056	0.0027	0.0116
Ethylbenzene	AP-42	----		0.00004	0.00002	0.0002	0.0008
Xylene	AP-42	----		0.00018	0.00020	0.0009	0.0041
Acrolein	AP-42	----		0.00514	0.00263	0.0245	0.1072
1,2-dichloropropane	AP-42	----		0.00003	0.00001	0.0001	0.0006
Biphenyl	AP-42	----		0.00021		0.0010	0.0044
Chlorobenzene	AP-42	----		0.00003	0.00001	0.0001	0.0006
Chloroethane	AP-42	----		0.00000		0.0000	0.0000
Cyclopentane	AP-42	----		0.00023		0.0011	0.0047
Methanol	AP-42	----		0.00250	0.00306	0.0146	0.0638
Methylcyclohexane	AP-42	----		0.00123		0.0059	0.0256
n-Nonane	AP-42	----		0.00011		0.0005	0.0023
n-Octane	AP-42	----		0.00035		0.0017	0.0073
n-Pentane	AP-42	----		0.00260		0.0124	0.0542
Naphthalene	AP-42	----		0.00007	0.00010	0.0005	0.0020
Phenol	AP-42	----		0.00002		0.0001	0.0005

Example Calculations:

NOx: $((1.0 \text{ grams/bhp-hr})(610 \text{ bhp}))(1/454) = 1.3436 \text{ lbs/hr}$

NOx: $(1.3436 \text{ lbs/hr})(8760 \text{ hrs/yr})/2000 = 5.8850 \text{ TPY}$

Calculation Notes:

Engine Data based on AP-42 Section 3.2, Manufacturer Engine Data Sheets

EPN: ENG2
 Caterpillar G398 TA HCR
 Engine SN:

(Type Engine)

Man. Date:
 Manufacturer's Rated Horsepower
 Fuel Input

610	hp
0.007804	MMBtu/hp-hr

Operating Schedule: 8760 hours annually

Pollutant	Reference	Control Efficiency	FACTORS			EMISSIONS	
			grams/bhp-hr	lean	rich	lbs/hr	TPY
				lb/MMBtu	lb/MMBtu		
non carc	carc						
VOC _{total}	Manuf. Engine Data	----	0.50			0.6718	2.9425
NOx	Manuf. Engine Data	----	1.00			1.3436	5.8850
CO	Manuf. Engine Data	----	1.00			1.3436	5.8850
PM10	AP-42	----		0.00999	0.01941	0.0924	0.4047
PM2.5	AP-42	----		0.00999	0.01941	0.0924	0.4047
SO2	AP-42	----		0.00059	0.00059	0.0028	0.0123
HCHO	AP-42	----		0.05280	0.02050	0.2514	1.1009
Benzene	AP-42	----		0.00044	0.00158	0.0075	0.0329
Acetaldehyde	AP-42	----		0.00836	0.00279	0.0398	0.1743
1,1-dichloroethane	AP-42	----		0.00002	0.00001	0.0001	0.0005
1,2-dichloroethane	AP-42	----		0.00002	0.00001	0.0001	0.0005
1,1,2-Trichloroethane	AP-42	----		0.00003	0.00002	0.0002	0.0007
1,1,2,2-Tetrachloroethane	AP-42	----		0.00004	0.00003	0.0002	0.0008
1,3-butadiene	AP-42	----		0.00027	0.00066	0.0032	0.0138
1,3-dichloropropene	AP-42	----		0.00003	0.00001	0.0001	0.0006
Benzo(e)pyrene	AP-42	----		0.00000		0.0000	0.0000
Carbon Tetrachloride	AP-42	----		0.00004	0.00002	0.0002	0.0008
Chloroform	AP-42	----		0.00003	0.00001	0.0001	0.0006
Ethylene Dibromide	AP-42	----		0.00004	0.00002	0.0002	0.0009
Methylene Chloride	AP-42	----		0.00002	0.00004	0.0002	0.0009
PAH	AP-42	----		0.00003	0.00014	0.0007	0.0029
Vinyl Chloride	AP-42	----		0.00001	0.00001	0.0001	0.0003
n-Hexane	AP-42	----		0.00111		0.0053	0.0231
2,2,4-Trimethylpentane	AP-42	----		0.00025		0.0012	0.0052
Toluene	AP-42	----		0.00041	0.00056	0.0027	0.0116
Ethylbenzene	AP-42	----		0.00004	0.00002	0.0002	0.0008
Xylene	AP-42	----		0.00018	0.00020	0.0009	0.0041
Acrolein	AP-42	----		0.00514	0.00263	0.0245	0.1072
1,2-dichloropropane	AP-42	----		0.00003	0.00001	0.0001	0.0006
Biphenyl	AP-42	----		0.00021		0.0010	0.0044
Chlorobenzene	AP-42	----		0.00003	0.00001	0.0001	0.0006
Chloroethane	AP-42	----		0.00000		0.0000	0.0000
Cyclopentane	AP-42	----		0.00023		0.0011	0.0047
Methanol	AP-42	----		0.00250	0.00306	0.0146	0.0638
Methylcyclohexane	AP-42	----		0.00123		0.0059	0.0256
n-Nonane	AP-42	----		0.00011		0.0005	0.0023
n-Octane	AP-42	----		0.00035		0.0017	0.0073
n-Pentane	AP-42	----		0.00260		0.0124	0.0542
Naphthalene	AP-42	----		0.00007	0.00010	0.0005	0.0020
Phenol	AP-42	----		0.00002		0.0001	0.0005

Example Calculations:

NOx: $((1.0 \text{ grams/bhp-hr})(610 \text{ bhp}))(1/454) = 1.3436 \text{ lbs/hr}$

NOx: $(1.3436 \text{ lbs/hr})(8760 \text{ hrs/yr})/2000 = 5.8850 \text{ TPY}$

Calculation Notes:

Engine Data based on AP-42 Section 3.2, Manufacturer Engine Data Sheets

EPN: ENG3

Caterpillar G3516B

(Type Engine)

Engine SN:

Man. Date:

Manufacturer's Rated Horsepower

1380 hp

Fuel Input

0.008226 MMBtu/hp-hr

Operating Schedule: 8760 hours annually

Pollutant	Reference	Control Efficiency	FACTORS			EMISSIONS	
			grams/bhp-hr	lb/MMBtu	lb/MMBtu	lbs/hr	TPY
VOC _{total}	Manuf. Engine Data	----	0.50			1.5198	6.6568
NOx	Manuf. Engine Data	----	1.00			3.0396	13.3137
CO	Manuf. Engine Data	----	1.00			3.0396	13.3137
PM10	AP-42	----		0.00999	0.01941	0.2203	0.9651
PM2.5	AP-42	----		0.00999	0.01941	0.2203	0.9651
SO2	AP-42	----		0.00059	0.00059	0.0067	0.0292
HCHO	AP-42	----		0.05280	0.02050	0.5994	2.6253
Benzene	AP-42	----		0.00044	0.00158	0.0179	0.0786
Acetaldehyde	AP-42	----		0.00836	0.00279	0.0949	0.4157
1,1-dichloroethane	AP-42	----		0.00002	0.00001	0.0003	0.0012
1,2-dichloroethane	AP-42	----		0.00002	0.00001	0.0003	0.0012
1,1,2-Trichloroethane	AP-42	----		0.00003	0.00002	0.0004	0.0016
1,1,2,2-Tetrachloroethane	AP-42	----		0.00004	0.00003	0.0005	0.0020
1,3-butadiene	AP-42	----		0.00027	0.00066	0.0075	0.0330
1,3-dichloropropene	AP-42	----		0.00003	0.00001	0.0003	0.0013
Benzo(e)pyrene	AP-42	----		0.00000		0.0000	0.0000
Carbon Tetrachloride	AP-42	----		0.00004	0.00002	0.0004	0.0018
Chloroform	AP-42	----		0.00003	0.00001	0.0003	0.0014
Ethylene Dibromide	AP-42	----		0.00004	0.00002	0.0005	0.0022
Methylene Chloride	AP-42	----		0.00002	0.00004	0.0005	0.0020
PAH	AP-42	----		0.00003	0.00014	0.0016	0.0070
Vinyl Chloride	AP-42	----		0.00001	0.00001	0.0002	0.0007
n-Hexane	AP-42	----		0.00111		0.0126	0.0552
2,2,4-Trimethylpentane	AP-42	----		0.00025		0.0028	0.0124
Toluene	AP-42	----		0.00041	0.00056	0.0063	0.0277
Ethylbenzene	AP-42	----		0.00004	0.00002	0.0005	0.0020
Xylene	AP-42	----		0.00018	0.00020	0.0022	0.0097
Acrolein	AP-42	----		0.00514	0.00263	0.0583	0.2556
1,2-dichloropropane	AP-42	----		0.00003	0.00001	0.0003	0.0013
Biphenyl	AP-42	----		0.00021		0.0024	0.0105
Chlorobenzene	AP-42	----		0.00003	0.00001	0.0003	0.0015
Chloroethane	AP-42	----		0.00000		0.0000	0.0001
Cyclopentane	AP-42	----		0.00023		0.0026	0.0113
Methanol	AP-42	----		0.00250	0.00306	0.0347	0.1521
Methylcyclohexane	AP-42	----		0.00123		0.0140	0.0612
n-Nonane	AP-42	----		0.00011		0.0012	0.0055
n-Octane	AP-42	----		0.00035		0.0040	0.0175
n-Pentane	AP-42	----		0.00260		0.0295	0.1293
Naphthalene	AP-42	----		0.00007	0.00010	0.0011	0.0048
Phenol	AP-42	----		0.00002		0.0003	0.0012

Example Calculations:

NOx: $((1.0 \text{ grams/bhp-hr})(1380 \text{ bhp}))(1/454) = 3.0396 \text{ lbs/hr}$

NOx: $(3.0396 \text{ lbs/hr})(8760 \text{ hrs/yr})/2000 = 13.3137 \text{ TPY}$

Calculation Notes:

Engine Data based on AP-42 Section 3.2, Manufacturer Engine Data Sheets

EPN: ENG4
 Caterpillar G398 TA HCR

(Type Engine)

Engine SN:

Man. Date:

Manufacturer's Rated Horsepower

203	hp
0.007877	MMBtu/hp-hr

Fuel Input

Operating Schedule: 8760 hours annually

Pollutant	Reference	Control Efficiency	FACTORS			EMISSIONS	
			grams/bhp-hr	lean	rich	lbs/hr	TPY
				lb/MMBtu	lb/MMBtu		
VOC _{total}	Manuf. Engine Data	----	0.35			0.1565	0.6855
NOx	Manuf. Engine Data	----	1.00			0.4471	1.9585
CO	Manuf. Engine Data	----	2.00			0.8943	3.9169
PM10	AP-42	----		0.00999	0.01941	0.0310	0.1359
PM2.5	AP-42	----		0.00999	0.01941	0.0310	0.1359
SO2	AP-42	----		0.00059	0.00059	0.0009	0.0041
HCHO	AP-42	----		0.05280	0.02050	0.0844	0.3698
Benzene	AP-42	----		0.00044	0.00158	0.0025	0.0111
Acetaldehyde	AP-42	----		0.00836	0.00279	0.0134	0.0586
1,1-dichloroethane	AP-42	----		0.00002	0.00001	0.0000	0.0002
1,2-dichloroethane	AP-42	----		0.00002	0.00001	0.0000	0.0002
1,1,2-Trichloroethane	AP-42	----		0.00003	0.00002	0.0001	0.0002
1,1,2,2-Tetrachloroethane	AP-42	----		0.00004	0.00003	0.0001	0.0003
1,3-butadiene	AP-42	----		0.00027	0.00066	0.0011	0.0046
1,3-dichloropropene	AP-42	----		0.00003	0.00001	0.0000	0.0002
Benzo(e)pyrene	AP-42	----		0.00000		0.0000	0.0000
Carbon Tetrachloride	AP-42	----		0.00004	0.00002	0.0001	0.0003
Chloroform	AP-42	----		0.00003	0.00001	0.0000	0.0002
Ethylene Dibromide	AP-42	----		0.00004	0.00002	0.0001	0.0003
Methylene Chloride	AP-42	----		0.00002	0.00004	0.0001	0.0003
PAH	AP-42	----		0.00003	0.00014	0.0002	0.0010
Vinyl Chloride	AP-42	----		0.00001	0.00001	0.0000	0.0001
n-Hexane	AP-42	----		0.00111		0.0018	0.0078
2,2,4-Trimethylpentane	AP-42	----		0.00025		0.0004	0.0018
Toluene	AP-42	----		0.00041	0.00056	0.0009	0.0039
Ethylbenzene	AP-42	----		0.00004	0.00002	0.0001	0.0003
Xylene	AP-42	----		0.00018	0.00020	0.0003	0.0014
Acrolein	AP-42	----		0.00514	0.00263	0.0082	0.0360
1,2-dichloropropane	AP-42	----		0.00003	0.00001	0.0000	0.0002
Biphenyl	AP-42	----		0.00021		0.0003	0.0015
Chlorobenzene	AP-42	----		0.00003	0.00001	0.0000	0.0002
Chloroethane	AP-42	----		0.00000		0.0000	0.0000
Cyclopentane	AP-42	----		0.00023		0.0004	0.0016
Methanol	AP-42	----		0.00250	0.00306	0.0049	0.0214
Methylcyclohexane	AP-42	----		0.00123		0.0020	0.0086
n-Nonane	AP-42	----		0.00011		0.0002	0.0008
n-Octane	AP-42	----		0.00035		0.0006	0.0025
n-Pentane	AP-42	----		0.00260		0.0042	0.0182
Naphthalene	AP-42	----		0.00007	0.00010	0.0002	0.0007
Phenol	AP-42	----		0.00002		0.0000	0.0002

Example Calculations:

NOx: ((1.0 grams/bhp-hr)(203 bhp))(1/454) = 0.4471 lbs/hr

NOx: (0.4471 lbs/hr)(8760 hrs/yr)/2000 = 1.9585 TPY

Calculation Notes:

Engine Data based on AP-42 Section 3.2, Manufacturer Engine Data Sheets

Hwy 30 Heater Emission Calculations

			EPN		RBLR-HTR1	RBLR-HTR2	STBL-HTR1	STBL-HTR2	ENG-HTR1	ENG-HTR2	COND-HTR1	COND-HTR2
			Reboiler Heater	Reboiler Heater	Stabilizer Heater	Stabilizer Heater	Engine Heater	Engine Heater	Condensate Heater	Condensate Heater		
Name/Type												
Heater Rating (MMBtu/hr)			0.75	0.75	1.5	1.5	0.2	0.2	1.5	1.5		
Operating Hours			8760	8760	8760	8760	8760	8760	8760	8760		
Fuel Heat Value (Btu/SCF)			1230	1230	1230	1230	1230	1230	1230	1230		
Pollutant	Emission Factor (lb/MMCF)	Reference	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	Emission Totals
VOC	5.5	AP-42	0.0034	0.0034	0.0067	0.0067	0.0009	0.0009	0.0067	0.0067	0.0067	0.0353
NOx	100	AP-42	0.0610	0.0610	0.1220	0.1220	0.0163	0.0163	0.1220	0.1220	0.1220	0.6423
CO	84	AP-42	0.0512	0.0512	0.1024	0.1024	0.0137	0.0137	0.1024	0.1024	0.1024	0.5395
PM ₁₀	7.6	AP-42	0.0046	0.0046	0.0093	0.0093	0.0012	0.0012	0.0093	0.0093	0.0093	0.0488
PM _{2.5}	5.7	AP-42	0.0035	0.0035	0.0070	0.0070	0.0009	0.0009	0.0070	0.0070	0.0070	0.0366
SO ₂	0.6	AP-42	0.0004	0.0004	0.0007	0.0007	0.0001	0.0001	0.0007	0.0007	0.0007	0.0039
HCHO	0.075	AP-42	0.0000	0.0000	0.0001	0.0001	0.0000	0.0000	0.0001	0.0001	0.0001	0.0005
Benzene	0.0021	AP-42	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Toluene	0.0034	AP-42	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hexane	1.8	AP-42	0.0011	0.0011	0.0022	0.0022	0.0003	0.0003	0.0022	0.0022	0.0022	0.0116
Pentane	2.6	AP-42	0.0016	0.0016	0.0032	0.0032	0.0004	0.0004	0.0032	0.0032	0.0032	0.0167
Naphthalene	0.00061	AP-42	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00000
Benzo(a)pyrene	1.20E-06	AP-42	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00000
Lead	5.00E-04	AP-42	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00000
Arsenic	2.00E-04	AP-42	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00000
Barium	4.40E-03	AP-42	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00003
Beryllium	1.20E-05	AP-42	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00000
Cadmium	1.10E-03	AP-42	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00001
Chromium	1.40E-03	AP-42	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00001
Cobalt	8.40E-05	AP-42	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00000
Copper	8.50E-04	AP-42	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00001
Manganese	3.80E-04	AP-42	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00000
Molybdenum	2.60E-04	AP-42	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00000
Nickel	2.10E-03	AP-42	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00001
Selenium	2.40E-05	AP-42	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00000
Vanadium	2.30E-03	AP-42	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00001
Zinc	2.90E-02	AP-42	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00019

Pollutant	Emission Factor (lb/MMCF)	Reference	tpy	Emission Totals								
VOC	5.5	AP-42	0.0147	0.0147	0.0294	0.0294	0.0039	0.0039	0.0294	0.0294	0.0294	0.1547
NOx	100	AP-42	0.2671	0.2671	0.5341	0.5341	0.0712	0.0712	0.5341	0.5341	0.5341	2.8132
CO	84	AP-42	0.2243	0.2243	0.4487	0.4487	0.0598	0.0598	0.4487	0.4487	0.4487	2.3631
PM ₁₀	7.6	AP-42	0.0203	0.0203	0.0406	0.0406	0.0054	0.0054	0.0406	0.0406	0.0406	0.2138
PM _{2.5}	5.7	AP-42	0.0152	0.0152	0.0304	0.0304	0.0041	0.0041	0.0304	0.0304	0.0304	0.1604
SO ₂	0.6	AP-42	0.0016	0.0016	0.0032	0.0032	0.0004	0.0004	0.0032	0.0032	0.0032	0.0169
HCHO	0.075	AP-42	0.000200	0.000200	0.000401	0.000401	0.000053	0.000053	0.000401	0.000401	0.000401	0.0021
Benzene	0.0021	AP-42	0.000006	0.000006	0.000011	0.000011	0.000001	0.000001	0.000011	0.000011	0.000011	0.0001
Toluene	0.0034	AP-42	0.000009	0.000009	0.000018	0.000018	0.000002	0.000002	0.000018	0.000018	0.000018	0.0001
Hexane	1.8	AP-42	0.004807	0.004807	0.009615	0.009615	0.001282	0.001282	0.009615	0.009615	0.009615	0.0506
Pentane	2.6	AP-42	0.006944	0.006944	0.013888	0.013888	0.001852	0.001852	0.013888	0.013888	0.013888	0.0731
Naphthalene	0.00061	AP-42	0.000002	0.000002	0.000003	0.000003	0.000000	0.000000	0.000003	0.000003	0.000003	0.0000
Benzo(a)pyrene	1.20E-06	AP-42	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.0000
Lead	5.00E-04	AP-42	0.000001	0.000001	0.000003	0.000003	0.000000	0.000000	0.000003	0.000003	0.000003	0.0000
Arsenic	2.00E-04	AP-42	0.000001	0.000001	0.000001	0.000001	0.000000	0.000000	0.000001	0.000001	0.000001	0.0000
Barium	4.40E-03	AP-42	0.000012	0.000012	0.000024	0.000024	0.000003	0.000003	0.000024	0.000024	0.000024	0.0001
Beryllium	1.20E-05	AP-42	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.0000
Cadmium	1.10E-03	AP-42	0.000003	0.000003	0.000006	0.000006	0.000001	0.000001	0.000006	0.000006	0.000006	0.0000
Chromium	1.40E-03	AP-42	0.000004	0.000004	0.000007	0.000007	0.000001	0.000001	0.000007	0.000007	0.000007	0.0000
Cobalt	8.40E-05	AP-42	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.0000
Copper	8.50E-04	AP-42	0.000002	0.000002	0.000005	0.000005	0.000001	0.000001	0.000005	0.000005	0.000005	0.0000
Manganese	3.80E-04	AP-42	0.000001	0.000001	0.000002	0.000002	0.000000	0.000000	0.000002	0.000002	0.000002	0.0000
Molybdenum	2.60E-04	AP-42	0.000001	0.000001	0.000001	0.000001	0.000000	0.000000	0.000001	0.000001	0.000001	0.0000
Nickel	2.10E-03	AP-42	0.000006	0.000006	0.000011	0.000011	0.000001	0.000001	0.000011	0.000011	0.000011	0.0001
Selenium	2.40E-05	AP-42	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.0000
Vanadium	2.30E-03	AP-42	0.000006	0.000006	0.000012	0.000012	0.000002	0.000002	0.000012	0.000012	0.000012	0.0001
Zinc	2.90E-02	AP-42	0.000077	0.000077	0.000155	0.000155	0.000021	0.000021	0.000155	0.000155	0.000155	0.0008

Calculation Notes:

Natural Gas Combustion Factor Data based on AP-42, Table 1.4-1 - 1.4.3.

FUGITIVE EMISSION CALCULATIONS

EPN: FUG1				
Component Type	Gas Component Count	Heavy Oil Component Count	Light Oil Component Count	Water/Light Oil Component Count
Valves	1500	500	500	24
Pumps	0	4	0	1
Flanges / Connectors	1500	500	500	17
Compressors	5	0	0	0
Relief Lines	15	0	2	2
Open-ended Lines	4	0	0	1
Other	0	0	6	6
Process Drains	11	17	14	7

Component Type	Gas lb/hr per component	Heavy Oil lb/hr per component	Light Oil lb/hr per component	Water/Light Oil lb/hr per component	Gas Emission Rate (lbs/hr)	Heavy Oil Emission Rate (lbs/hr)	Light Oil Emission Rate (lbs/hr)	Water/ Light Oil Emission Rate (lbs/hr)	Control Efficiency %	Control Efficiency %	Total Emissions lbs/hr	Total Emissions tn/yr
Valves	0.0099	0.00002	0.0055	0.0002	2.9641	0.0093	2.7500	0.0052	85%		0.8716	3.8174
Pumps	0.0053	0.0011	0.0287	0.0001	0.0000	0.0045	0.0000	0.0001	85%		0.0046	0.0200
Flanges / Connectors	0.0009	0.000001	0.0002	0.0000	0.2570	0.000430	0.1215	0.0001	85%	30%	0.2653	1.1622
Compressors	0.0194	0.0001	0.0165	0.0309	0.0193	0.000000	0.0000	0.0000	85%		0.0029	0.0127
Relief Lines	0.0194	0.0001	0.0165	0.0309	0.0580	0.000000	0.0330	0.0618	85%		0.0229	0.1004
Open-ended Lines	0.0044	0.0003	0.0031	0.0006	0.0035	0.000000	0.0000	0.0006	85%		0.0006	0.0027
Other	0.0194	0.0001	0.0165	0.0309	0.0000	0.000000	0.0990	0.1854	0%		0.2844	1.2457
Process Drains	0.0194	0.0001	0.0165	0.0309	0.0425	0.0012	0.2310	0.2163	0%		0.4910	2.1505
Totals											1.9433	8.5115

Component	Mole Wt	Mole%	lb/mol Mix	Wt%	Percentage	EMISSIONS	
						lbs/hr	TPY
Methane	16.043	86.8514	13.934	67.973	68.0%		
Nitrogen	28.013	0.5378	0.151	0.735	0.7%		
Carbon Dioxide	44.01	0.1909	0.084	0.410	0.4%		
Ethane	30.07	7.4726	2.247	10.962	11.0%		
Hydrogen Sulfide	34.08	0.0000	0.000	0.000	0.0%		
Propane	44.097	3.9735	1.752	8.548	8.5%	0.1661	0.7276
Iso-butane	58.124	0.8460	0.492	2.399	2.4%	0.0466	0.2042
N-Butane	58.124	1.3749	0.799	3.899	3.9%	0.0758	0.3318
Iso-Pentane	72.151	0.4032	0.291	1.419	1.4%	0.0276	0.1208
N-Pentane	72.151	0.4127	0.298	1.453	1.5%	0.0282	0.1236
N-Hexane	86.07	0.1561	0.134	0.655	0.7%	0.0127	0.0558
Cyclohexane	84.16	0.0481	0.040	0.197	0.2%	0.0038	0.0168
Heptanes	100.21	0.1119	0.112	0.547	0.5%	0.0106	0.0466
Methylcyclohexane	96.17	0.0287	0.028	0.135	0.1%	0.0026	0.0115
224-Trimethylpentane	114.22	0.0000	0.000	0.000	0.0%	0.0000	0.0000
Benzene	78.11	0.0217	0.017	0.083	0.1%	0.0016	0.0070
Toluene	92.14	0.0097	0.009	0.044	0.0%	0.0008	0.0037
Ethylbenzene	106.17	0.0054	0.006	0.028	0.0%	0.0005	0.0024
Xylenes	106.16	0.0108	0.011	0.056	0.1%	0.0011	0.0048
Hexanes +	92.12	0.0530	0.049	0.238	0.2%	0.0046	0.0203
C8 Heavies	96.09	0.0470	0.045	0.220	0.220%	0.0043	0.0188
		7.50	20.499	100.000	100%		
		102.56	VOC	19.920	19.9%		

Notes:
Gas Analysis - Questar Applied Technology, 1/3/2013, ML Investments 1-10

**HIGH PRESSURE FLARE
VOC EMISSION CALCULATION**

Basis

Molar flow of each VOC constituent to the flare (flare inlet) is based on the composite gas analysis.

Flare removal efficiency = 98%

Molar volume = 379.5 scf/mole

Constituent	Composite Gas Composition		Flare Inlet	Flare Outlet 98% DRE)		
	mole/day	mole weight	lb/day	lb/day	lb/hr	tn/yr
Propane	13.1926	44.09	581.664	11.633	0.485	2.123
Iso-butane	2.8089	58.12	163.251	3.265	0.136	0.596
Butane	4.5649	58.12	265.311	5.306	0.221	0.968
Iso-Pentane	1.3387	72.15	96.586	1.932	0.080	0.353
Pentane	1.3702	72.15	98.862	1.977	0.082	0.361
Benzene	0.0720	78.11	5.628	0.113	0.005	0.021
Toluene	0.0322	92.14	2.967	0.059	0.002	0.011
Ethylbenzene	0.0179	106.20	1.904	0.038	0.002	0.007
Xylenes	0.0359	106.20	3.808	0.076	0.003	0.014
Hexanes	0.1760	86.18	15.165	0.303	0.013	0.055
Heptanes	0.3715	100.21	37.231	0.745	0.031	0.136
Octanes	0.1169	114.20	13.347	0.267	0.011	0.049
Iso-octane	0.0080	114.20	0.910	0.018	0.001	0.003
Nonanes	0.0139	128.20	1.788	0.036	0.001	0.007
Decanes+	0.0173	142.30	2.457	0.049	0.002	0.009
n-Hexane	0.5183	86.18	44.665	0.893	0.037	0.163
Cyclohexane	0.1597	84.20	13.447	0.269	0.011	0.049
Methylcyclohexane	0.0953	98.20	9.357	0.187	0.008	0.034
Cyclopentane	0.3871	70.10	27.138	0.543	0.023	0.099
Summation of VOC Constituents					1.155	5.057

Sample Calculations - Flare Outlet - Propane

Hourly: (13.1926 mole of Propane/day) (day/24 hr) (44.1 lb/mole) (1 - 0.98) = 0.485 lb of Propane/hr

Annual: (13.1926 mole of Propane/day) (365 day/yr) (44.1 lb/mole) (1 - 0.98) (tn/2,000 lb) = 2.123 tn of Propane/yr

**HIGH PRESSURE FLARE
COMBUSTION BY-PRODUCTS EMISSION CALCULATIONS**

Basis for NOx and CO Emission Calculations

NOx emission factor = 0.068 lb/MMBtu (AP-42 Table 13-5-1)
 CO emission factor = 0.31 lb/MMBtu (AP-42 Table 13-5-2)
 Hourly heat input = 5.948 MMBtu/hr (HP Flare Net Heat Input analysis)
 Annual heat input = 52100.2 MMBtu/yr (HP Flare Net Heat Input analysis)

	Hourly			Annual	
	Emission Factor	Net Heat Input	Emissions	Net Heat Input	Emissions
	lb/MMBtu	MMBtu/hr	lb/hr	MMBtu/yr	tn/yr
NOx	0.068	5.948	0.404	52100.2	1.771
CO	0.31	5.948	1.844	52100.2	8.076

Sample Calculations

Hourly NOx Emissions: (0.068 lb of NOx/MMBtu) (5.948 MMBtu/hr) = 0.404 lb of NOx/hr
 Annual NOx Emissions: (0.068 lb of NOx/MMBtu) (52,100 MMBtu/yr) (1 tn/2,000 lb) = 1.771 tn of NOx/yr

Basis for PM10, PM2.5, and SO2 Emission Calculations

PM10, PM2.5, and SO2 emission factors from AP-42 Table 1.4-2.
 PM10/PM2.5 emission factor = 1.9 lb/MMscf (filterable fraction only, condensible organics not expected due to high dew point of organics)
 SO2 emission factor = 0.6 lb/MMscf (no H2S in composite gas)
 Waste/pilot gas flow = 126,000 scf/day (plant specification)
 Hourly waste & pilot gas flow = 5250.0 scf/hr (126000 scf/day * day/24 hr)
 Annual waste & pilot gas flow = 45.990 MMscf/yr (126000 scf/day * 365 day/yr * MMscf/1,000,000 scf)

	Hourly			Annual	
	Emission Factor	Composite Gas Flow	Emissions	Composite Gas Flow	Emissions
	lb/MMscf	scf/hr	lb/hr	MMscf/yr	tn/yr
PM10/PM2.5	1.9	5250.0	0.010	45.990	0.044
SO2	0.6	5250.0	0.003	45.990	0.014

Sample Calculations

Hourly PM10 Emissions: (1.9 lb of PM10/MMscf) (5,250.0 scf/hr) (MMscf/1,000,000 scf) = 0.010 lb of PM10/hr
 Annual PM10 Emissions: (1.9 lb of PM10/MMscf) (45.990 MMscf/yr) (1 tn/2,000 lb) = 0.044 tn of PM10/yr

HIGH PRESSURE FLARE NET HEAT INPUT

Basis

Molar flow (mole/day) of each listed organic constituent to the flare is based on the composite gas analysis.

Molar volume = 379.5 scf/mole

Constituent	Composite Gas	Waste/Pilot Gas Flow			Net Heating Value	Net Heat Input	
	mole/day	scf/day	scf/hr	MMscf/yr	Btu/scf	MMBtu/hr	MMBtu/yr
Methane	288.3604	109432.76	4559.70	39.943	911	4.154	36388.0
Ethane	24.8102	9415.48	392.31	3.437	1631	0.640	5605.2
Propane	13.1926	5006.61	208.61	1.827	2353	0.491	4299.9
Iso-butane	2.8089	1065.96	44.42	0.389	3094	0.137	1203.8
Butane	4.5649	1732.37	72.18	0.632	3101	0.224	1960.8
Iso-Pentane	1.3387	508.03	21.17	0.185	3698	0.078	685.7
Pentane	1.3702	520.00	21.67	0.190	3709	0.080	704.0
Benzene	0.0720	27.34	1.14	0.010	3591	0.004	35.8
Toluene	0.0322	12.22	0.51	0.004	4274	0.002	19.1
Ethylbenzene	0.0179	6.80	0.28	0.002	4971	0.001	12.3
Xylenes	0.0359	13.61	0.57	0.005	4958	0.003	24.6
Hexanes	0.1760	66.78	2.78	0.024	4404	0.012	107.3
Heptanes	0.3715	140.99	5.87	0.051	5100	0.030	262.5
Octanes	0.1169	44.35	1.85	0.016	5796	0.011	93.8
Iso-octane	0.0080	3.02	0.13	0.001	5796	0.001	6.4
Nonanes	0.0139	5.29	0.22	0.002	6493	0.001	12.5
Decanes+	0.0173	6.55	0.27	0.002	7190	0.002	17.2
n-Hexane	0.5183	196.69	8.20	0.072	4404	0.036	316.2
Cyclohexane	0.1597	60.61	2.53	0.022	4180	0.011	92.5
Methylcyclohexane	0.0953	36.16	1.51	0.013	4864	0.007	64.2
Cyclopentane	0.3871	146.92	6.12	0.054	3512	0.021	188.3
Summation of Net Heat Inputs						5.948	52100.2

Sample Calculations

Methane - hourly net heat input: (288.3604 mole/day) (day/24 hr) (379.5 scf/mole) (911 Btu/scf) (MMBtu/1,000,000 scf) = 4.154 MMBtu/hr

Methane - annual net heat input: (288.3604 mole/day) (365 day/yr) (379.5 scf/mole) (911 Btu/scf) (MMBtu/1,000,000 Btu) = 36,388.0 MMBtu/yr

**HIGH PRESSURE FLARE
WASTE & PILOT GAS COMPOSITE**

Basis

A composite gas composition is developed using maximum mole percent of each gas constituent from each of the 7 raw gas analysis

Waste/pilot gas flow = 126,000 scf/day (plant specification)

Molar volume = 379.5 scf/mole

	Kauffman 1-9	LWR 4-inch	LWR 12-inch	ML 1-10	ML 1-11lt	ML 1-11ut	ML 2-10	Composite Gas Composition	
Constituent	mole %	mole %	mole %	mole %	mole %	mole %	mole %	mole %	mole/day
Hydrogen Sulfide	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Nitrogen	0.5204	0.5055	0.5191	0.4816	0.5378	0.5295	0.5330	0.5378	1.7856
Carbon Dioxide	0.1909	0.0931	0.1057	0.1404	0.0590	0.1369	0.0279	0.1909	0.6338
Methane	85.9296	86.8514	85.8207	85.8560	85.7393	85.0144	85.8733	86.8514	288.3604
Ethane	5.9644	6.5474	6.6773	6.1437	6.9272	7.4726	6.7280	7.4726	24.8102
Propane	3.7786	3.5039	3.8435	3.8164	3.8778	3.9735	3.8828	3.9735	13.1926
Iso-butane	0.8460	0.6713	0.7799	0.8202	0.7602	0.7568	0.7771	0.8460	2.8089
Butane	1.3749	1.0406	1.2378	1.3487	1.1879	1.1862	1.2216	1.3749	4.5649
Iso-Pentane	0.4032	0.2556	0.3221	0.3905	0.2911	0.2916	0.3060	0.4032	1.3387
Pentane	0.4127	0.2500	0.3209	0.4047	0.2850	0.2871	0.3016	0.4127	1.3702
Benzene	0.0196	0.0015	0.0012	0.0217	0.0020	0.0027	0.0017	0.0217	0.0720
Toluene	0.0089	0.0041	0.0053	0.0097	0.0060	0.0068	0.0057	0.0097	0.0322
Ethylbenzene	0.0054	0.0015	0.0027	0.0025	0.0036	0.0023	0.0014	0.0054	0.0179
Xylenes	0.0108	0.0035	0.0027	0.0077	0.0068	0.0056	0.0038	0.0108	0.0359
Hexanes	0.0518	0.0281	0.0370	0.0530	0.0318	0.0332	0.0340	0.0530	0.1760
Heptanes	0.1031	0.0698	0.0935	0.1119	0.0817	0.0892	0.0896	0.1119	0.3715
Octanes	0.0332	0.0120	0.0183	0.0352	0.0182	0.0199	0.0171	0.0352	0.1169
Iso-octane	0.0022	0.0009	0.0013	0.0024	0.0010	0.0011	0.0010	0.0024	0.0080
Nonanes	0.0042	0.0018	0.0021	0.0027	0.0026	0.0022	0.0019	0.0042	0.0139
Decanes+	0.0052	0.0024	0.0008	0.0015	0.0031	0.0026	0.0019	0.0052	0.0173
n-Hexane	0.1500	0.0767	0.1029	0.1561	0.0872	0.0911	0.0940	0.1561	0.5183
Cyclohexane	0.0442	0.0052	0.0079	0.0481	0.0068	0.0068	0.0068	0.0481	0.1597
Methylcyclohexane	0.0260	0.0117	0.0152	0.0287	0.0139	0.0152	0.0148	0.0287	0.0953
Cyclopentane	0.1147	0.0620	0.0821	0.1166	0.0700	0.0727	0.0750	0.1166	0.3871

Sample Calculations

Methane - mole/day: (126,000 scf/day) (mole/379.5 scf) (86.8514/100) = 288.360 mole of Methane/day

**LOW PRESSURE FLARE
VOC EMISSION CALCULATION**

Basis

Mole percent of each organic constituent to the flare (flare inlet) is based on prediction by E&P TANK V2.0 report.

Waste/pilot gas flow = 126,000 scf/day (plant specification)

Molar volume = 379.5 scf/mole

Flare removal efficiency = 98%

Constituent	Waste/Pilot Gas Composition			Flare Inlet	Flare Outlet (98% DRE)		
	mole percent	mole/day	mole weight	lb/day	lb/day	lb/hr	tn/yr
Methane	52.9548	175.818	16.04	2820.126	56.403	2.350	10.293
Ethane	14.2231	47.223	30.07	1419.994	28.400	1.183	5.183
Propane	15.2809	50.735	44.09	2236.906	44.738	1.864	8.165
Iso-butane	3.6860	12.238	58.12	711.279	14.226	0.593	2.596
Butane	6.7816	22.516	58.12	1308.629	26.173	1.091	4.776
Iso-Pentane	1.9854	6.592	72.15	475.601	9.512	0.396	1.736
Pentane	2.0575	6.831	72.15	492.873	9.857	0.411	1.799
Benzene	0.0153	0.051	78.11	3.968	0.079	0.003	0.014
Toluene	0.0142	0.047	92.14	4.344	0.087	0.004	0.016
Ethylbenzene	0.0029	0.010	106.20	1.023	0.020	0.001	0.004
Xylenes	0.0092	0.031	106.20	3.244	0.065	0.003	0.012
Hexanes	0.7668	2.546	86.18	219.405	4.388	0.183	0.801
Heptanes	1.0627	3.528	100.21	353.574	7.071	0.295	1.291
Octanes	0.2413	0.801	114.20	91.492	1.830	0.076	0.334
Nonanes	0.0556	0.185	128.20	23.666	0.473	0.020	0.086
Decanes+	0.0109	0.036	142.30	5.150	0.103	0.004	0.019
n-Hexane	0.8241	2.736	86.18	235.801	4.716	0.197	0.861
Iso-octane	0.0278	0.092	114.20	10.541	0.211	0.009	0.038
Summation of VOC Constituents						5.148	22.548

Sample Calculations - Methane

Molar flow - mole/day: (126,000 scf/day) (mole/379.5 scf) (52.9548/100) = 175.818 mole of Methane/day

Hourly Emissions: (175.818 mole of Methane/day) (day/24 hr) (16.04 lb/mole) (1 - 0.98) = 2.350 lb of Methane/hr

Annual Emissions: (175.818 mole of Methane/day) (365 day/yr) (16.04 lb/mole) (1 - 0.98) (tn/2,000 lb) = 10.293 tn of Methane/yr

**LOW PRESSURE FLARE
COMBUSTION BY-PRODUCTS EMISSION CALCULATIONS**

Basis for NOx and CO Emission Calculations

NOx emission factor = 0.068 lb/MMBtu (AP-42 Table 13-5-1)
 CO emission factor = 0.31 lb/MMBtu (AP-42 Table 13-5-2)
 Hourly heat input = 8.894 MMBtu/hr (LP Flare Net Heat Input analysis)
 Annual heat input = 77908.9 MMBtu/yr (LP Flare Net Heat Input analysis)

	Hourly			Annual	
	Emission Factor	Net Heat Input	Emissions	Net Heat Input	Emissions
	lb/MMBtu	MMBtu/hr	lb/hr	MMBtu/yr	tn/yr
NOx	0.068	8.894	0.605	77908.9	2.649
CO	0.31	8.894	2.757	77908.9	12.076

Sample Calculations

Hourly NOx Emissions: (0.068 lb of NOx/MMBtu) (8.894 MMBtu/hr) = 0.605 lb of NOx/hr
 Annual NOx Emissions: (0.068 lb of NOx/MMBtu) (77,908.9 MMBtu/yr) (1 tn/2,000 lb) = 2.649 tn of NOx/yr

Basis for PM10, PM2.5, and SO2 Emission Calculations

PM10, PM2.5, and SO2 emission factors from AP-42 Table 1.4-2.
 PM10/PM2.5 emission factor = 1.9 lb/MMscf (filterable fraction only, condensable organics not expected due to high dew point of organics)
 SO2 emission factor = 0.6 lb/MMscf (no H2S in waste/pilot gas)
 Waste/pilot gas flow = 126,000 scf/day (plant specification)
 Hourly waste & pilot gas flow = 5250.0 scf/hr (126,000 scf/day * day/24 hr)
 Annual waste & pilot gas flow = 45,990 MMscf/yr (126,000 scf/day * 365 day/yr * MMscf/1,000,000 scf)

	Hourly			Annual	
	Emission Factor	Waste Gas Flow	Emissions	Waste Gas Flow	Emissions
	lb/MMscf	scf/hr	lb/hr	MMscf/yr	tn/yr
PM10/PM2.5	1.9	5250.0	0.010	45.990	0.044
SO2	0.6	5250.0	0.003	45.990	0.014

Sample Calculations

Hourly PM10 Emissions: (1.9 lb of PM10/MMscf) (5,250.0 scf/hr) (MMscf/1,000,000 scf) = 0.010 lb of PM10/hr
 Annual PM10 Emissions: (1.9 lb of PM10/MMscf) (45,990 MMscf/yr) (1 tn/2,000 lb) = 0.044 tn of PM10/yr

**LOW PRESSURE FLARE
NET HEAT INPUT**

Basis

Molar flow of each organic constituent to the flare (flare inlet) is based on E&P TANK V2.0 report.

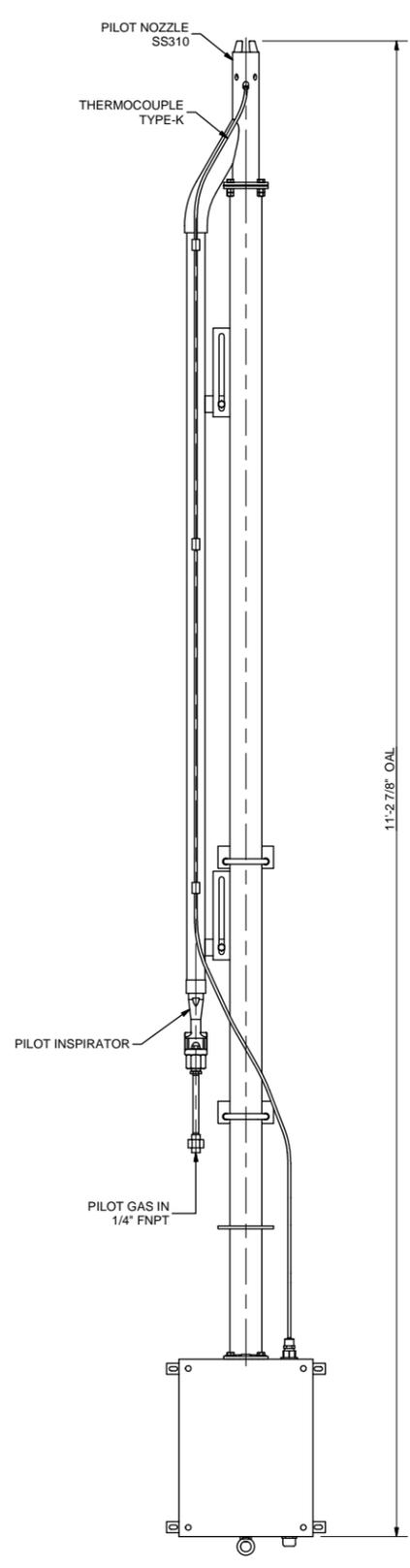
Molar volume = 379.5 scf/mole

Constituent	Composite Gas	Waste/Pilot Gas Flow			Net Heating Value	Net Heat Input	
	mole/day	scf/day	scf/hr	MMscf/yr	Btu/scf	MMBtu/hr	MMBtu/yr
Methane	175.818	66723.05	2780.13	24.354	911	2.533	22186.4
Ethane	47.223	17921.11	746.71	6.541	1631	1.218	10668.7
Propane	50.735	19253.93	802.25	7.028	2353	1.888	16536.1
Iso-butane	12.238	4644.36	193.52	1.695	3094	0.599	5244.9
Butane	22.516	8544.82	356.03	3.119	3101	1.104	9671.6
Iso-Pentane	6.592	2501.60	104.23	0.913	3698	0.385	3376.6
Pentane	6.831	2592.45	108.02	0.946	3709	0.401	3509.6
Benzene	0.051	19.28	0.80	0.007	3591	0.003	25.3
Toluene	0.047	17.89	0.75	0.007	4274	0.003	27.9
Ethylbenzene	0.010	3.65	0.15	0.001	4971	0.001	6.6
Xylenes	0.031	11.59	0.48	0.004	4958	0.002	21.0
Hexanes	2.546	966.17	40.26	0.353	4404	0.177	1553.1
Heptanes	3.528	1339.00	55.79	0.489	5100	0.285	2492.6
Octanes	0.801	304.04	12.67	0.111	5796	0.073	643.2
Nonanes	0.185	70.06	2.92	0.026	6493	0.019	166.0
Decanes+	0.036	13.73	0.57	0.005	7190	0.004	36.0
n-Hexane	2.736	1038.37	43.27	0.379	4404	0.191	1669.1
Iso-octane	0.092	35.03	1.46	0.013	5796	0.008	74.1
Summation of Heat Inputs						8.894	77908.9

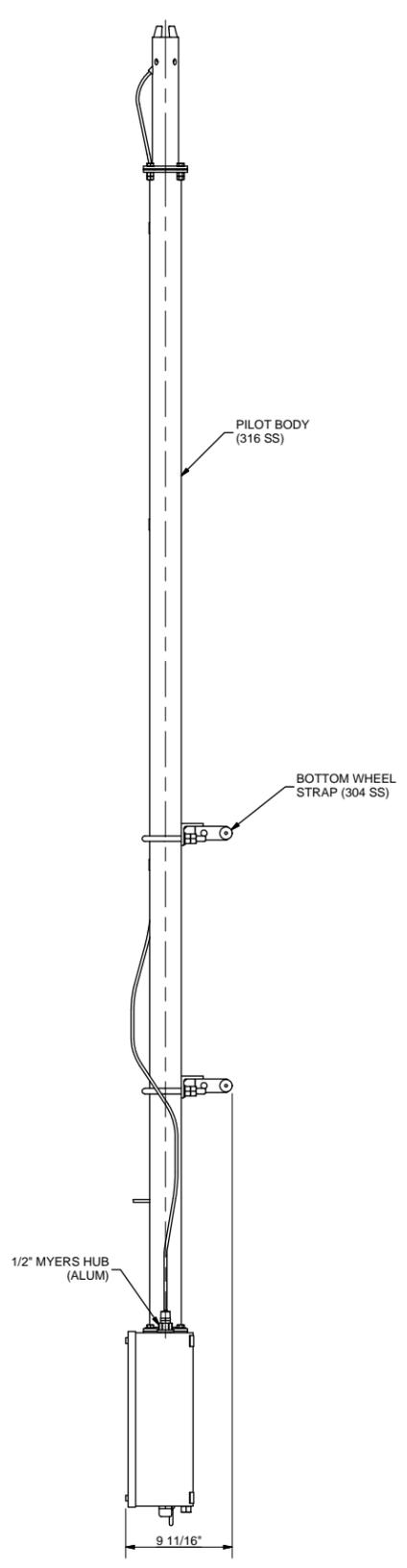
Sample Calculations

Methane - hourly net heat input: (175.818 mole/day) (day/24 hr) (379.5 scf/mole) (911 Btu/scf) (MMBtu/1000000 scf) = 2.533 MMBtu/hr

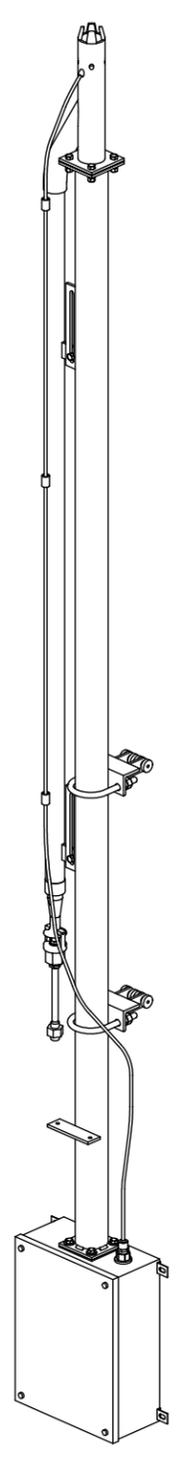
Methane - annual net heat input: (175.818 mole/day) (365 day/yr) (379.5 scf/mole) (911 Btu/scf) (MMBtu/1000000 Btu) = 22,186.4 MMBtu/yr



FRONT VIEW



SIDE VIEW



ISOMETRIC VIEW

SPARE PARTS	
PART NO.	DESCRIPTION
	SPARK PLUG
	TRANSFORMER
	HEAD ASSEMBLY
	THERMOCOUPLE
	INSPIRATOR

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES. DO NOT SCALE DRAWING	
TOLERANCE	
OVERALL ELEVATION	±1"
NOZZLE ELEVATION	±1/2"
GLYVIRE ELEVATION	±1"
FRACTIONS	±1/8"
DECIMALS .XX	±.05
DECIMALS .XXX	±.030
ANGLE	±1°
SQUARENESS	±1/16"
ACROSS FACE	±1/16" MAX
FLANGE ROTATION	±1/16" MAX
THIRD ANGLE PROJECTION	

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REV	DATE	DESCRIPTION	BY	CHKD	APPR
3	07/17/13	UPDATED BODY	RJ	TAE	MC
2	01/03/13	REVISED AS SHOWN	RJ	TAE	DGM
1	10/17/12	REVISED AS SHOWN	RJ	TAE	KJH
0	6/3/10	ISSUED FOR CONSTRUCTION	ESM	KJH	RAC

CUSTOMER/LOCATION FLARE INDUSTRIES, LLC. AUSTIN, TEXAS		
TITLE GENERAL ARRANGEMENT MODEL 850 PILOT ASSEMBLY		
SCALE 1 1/2" = 1'-0"	PROJECT NO. STANDARDS	
SHEET 1 OF 1	DWG NO. 20850-01-G01	REV LEVEL 3

8 7 6 5 4 3 2 1

D

C

B

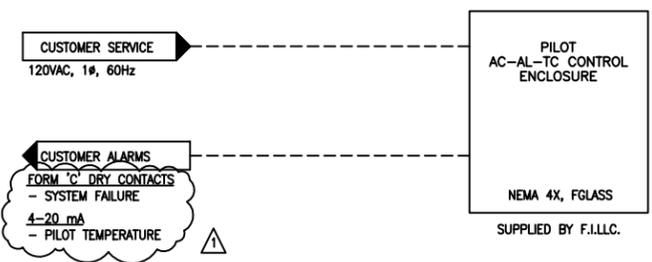
A

D

C

B

A



PILOT GAS

NATURAL GAS	
MAX. INLET FLOW RATE:	58,500 BTU/HR
MAX. INLET PRESSURE:	100 PSIG (REGULATED BY OTHERS)

LP FLARE

MAX. INLET FLOW RATE:	0.075 MMSCFD
FLARE GAS LHV:	1,815 BTU/SCF
MOLECULAR WEIGHT:	36.22
AVAILABLE INLET PRESS:	0.24 PSIG
TYP. INLET TEMPERATURE:	120°F

PURGE GAS

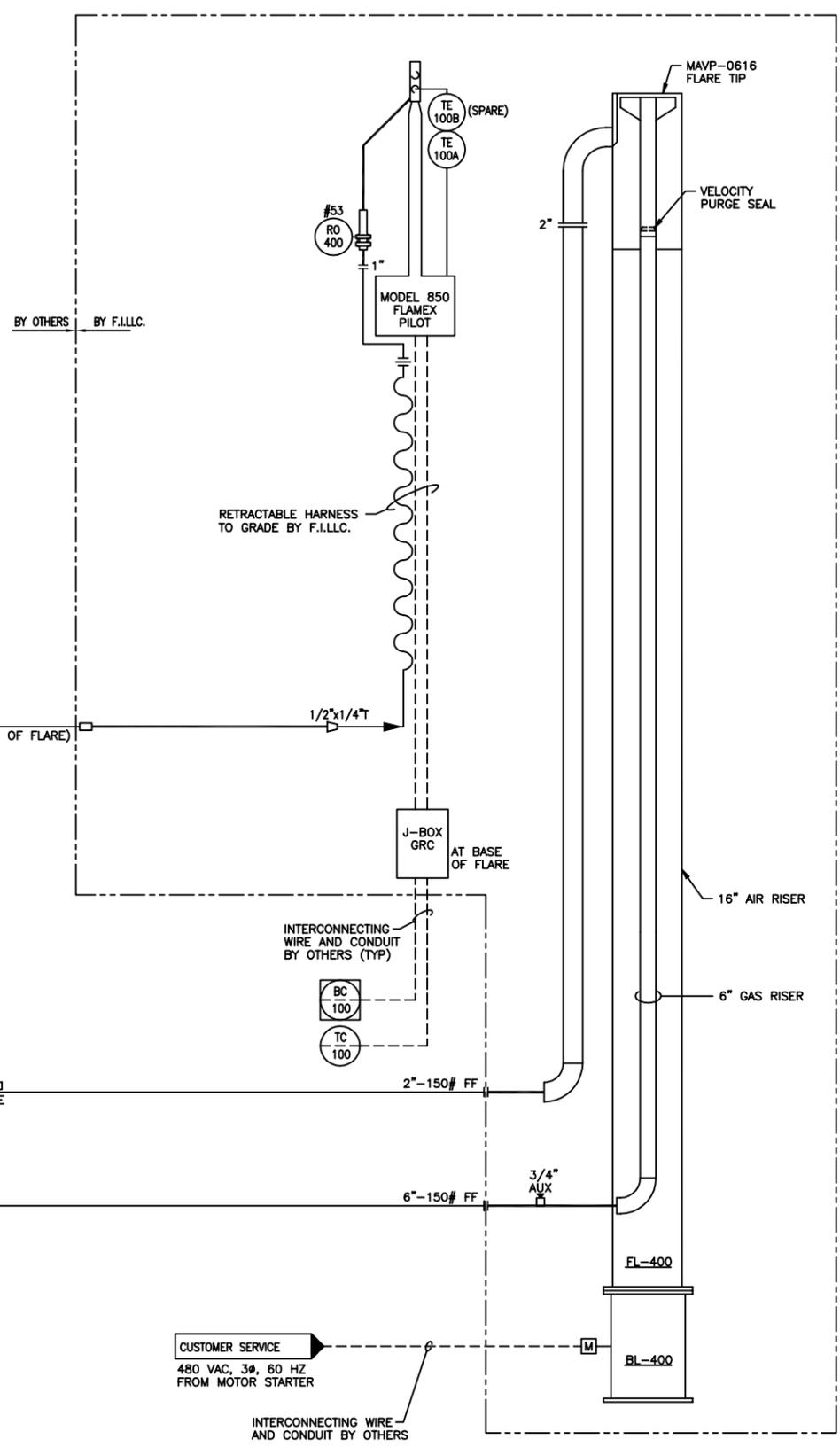
NATURAL GAS	
MIN. INLET FLOW RATE:	8 SCFH (NOTE 1)

WASTE GAS

MAX. INLET FLOW RATE:	1.25-2.0 MMSCFD
FLARE GAS LHV:	1100-2370 BTU/SCF
MOLECULAR WEIGHT:	20-44
TYP. REQUIRED INLET PRESS:	2.0 PSIG (AT CAPACITY)
TYP. INLET TEMPERATURE:	125°F

PURGE GAS

NATURAL GAS	
MIN. INLET FLOW RATE:	13 SCFH (NOTE 1)



FL-400
TANK BATTERY AIR FLARE
TRI-LEG SUPPORT
16"DIA x 25FT OAH
w/2" TANDEM RISER

BL-400
VANE AXIAL BLOWER, 16"
5 H.P. TEFC MOTOR
4,000 CFM, 2.5" WC

NOTES:

1. STATED PURGE RATE IS CALCULATED BASED ON API RECOMMENDED VELOCITIES TO PREVENT AIR INGRESS ONLY. HIGHER PURGE GAS FLOW RATE MAY BE REQUIRED TO PREVENT FLAME BURN-BACK.

1	08/12/14	REVISED CUSTOMER ALARM	RJ	TAE	JP
0	05/20/13	ISSUED FOR CONSTRUCTION	RJ	TAE	JP
Δ	DATE	REVISIONS	BY	CHK	APPR.

PROPRIETARY INFORMATION
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QTY REQ: EST WEIGHT:

CUSTOMER/ASSIGN:
FLARE INDUSTRIES, LLC.
AUSTIN, TEXAS

DESCRIPTION:
PIPING & INSTRUMENTATION DIAGRAM
MAVP-0616 x 25ft AIR FLARE (TBAF)
w/ 2in TANDEM RISER
& MOD 850 FLAMEX PILOT

FLARE INDUSTRIES
An Aerson Company

SCALE: NTS PROJECT NO: STANDARDS

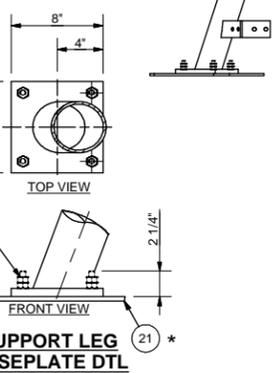
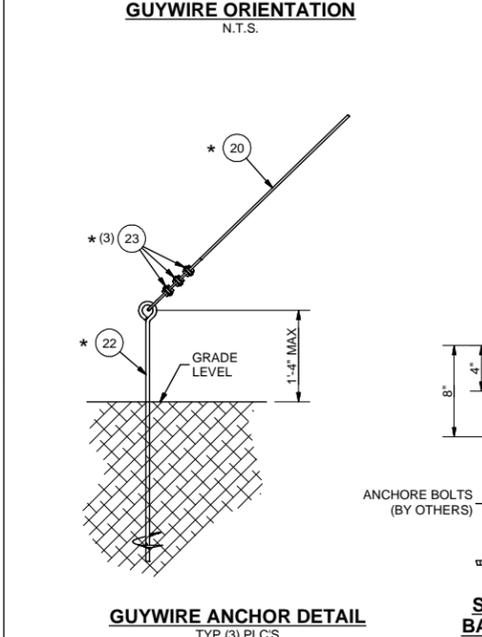
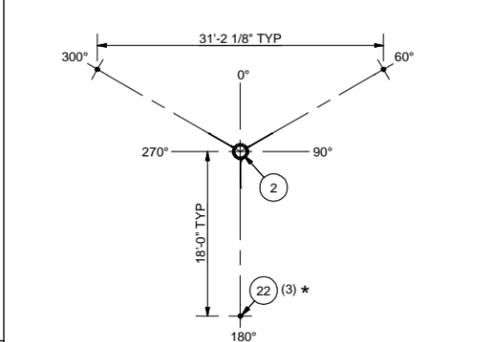
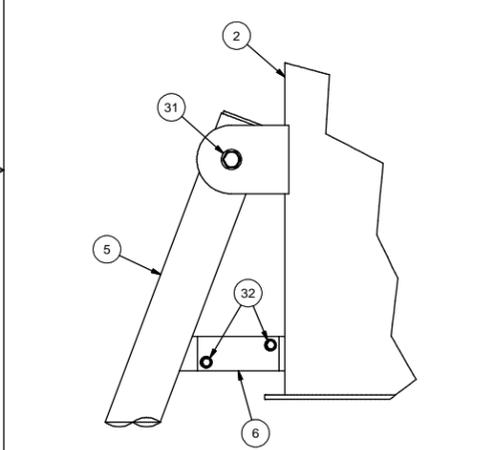
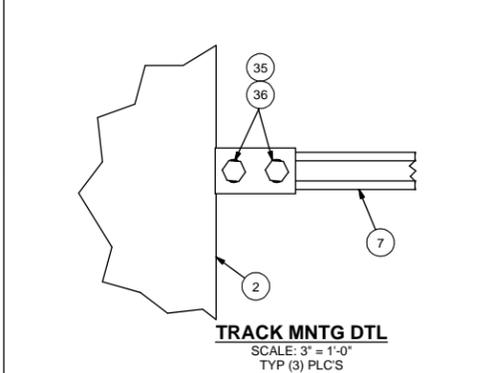
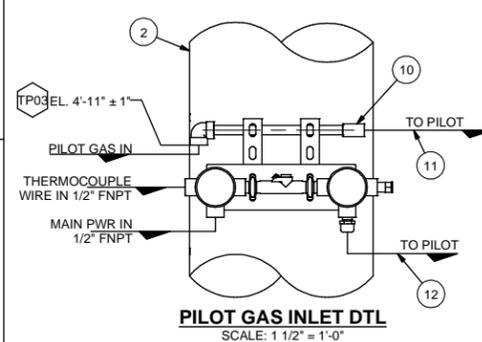
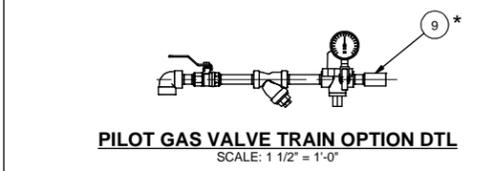
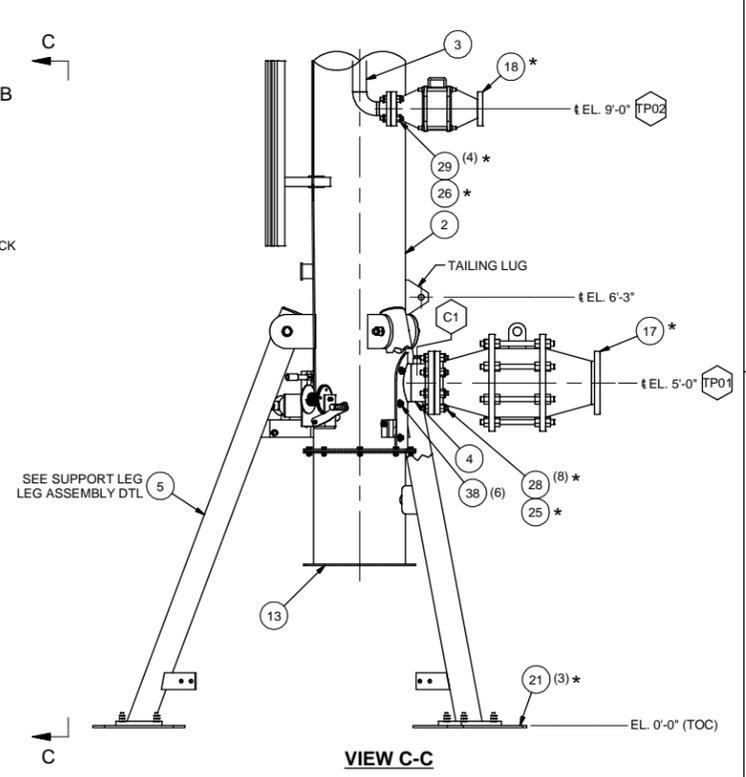
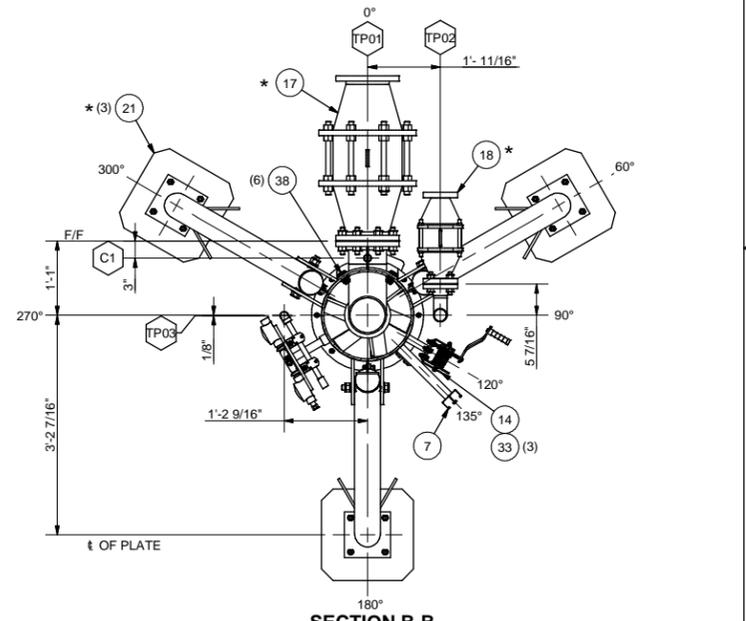
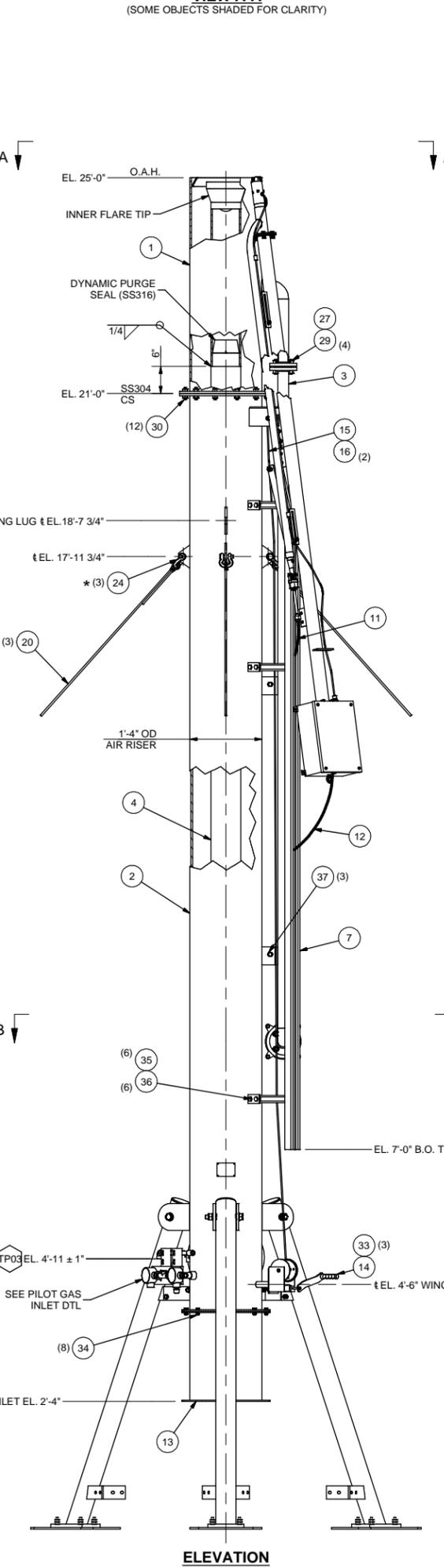
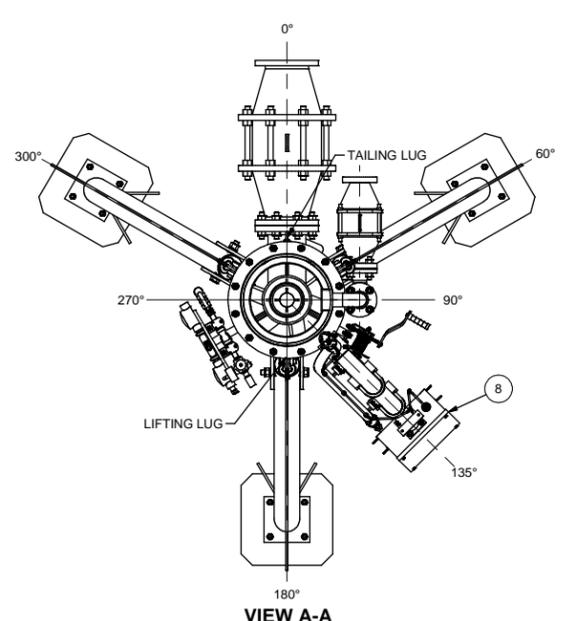
SHEET 1 of 1 DRAWING NUMBER: 71006-24-P01 REV LEVEL: 1

ENGINEERING DESIGN INFORMATION	
GUY WIRE STACK	
DESIGNED WIND SPEED:	120 MPH
EXPOSURE:	C
DEAD WEIGHT:	2,700 LBS
VERTICAL DOWN FORCE:	3.5 KIP (PER LEG)
VERTICAL UPLIFT FORCE:	2.2 KIP (PER LEG)
SHEAR FORCE:	1.0 KIP (PER LEG)
ANCHOR BOLT MATERIAL:	1/2"
ANCHOR BOLT QUANTITY:	12 (4 PER LEG)
CORROSION ALLOWANCE:	1/16"
GUYWIRE	
DIAMETER:	3/8"
TYPE:	6x19 IWRC
BREAKING STRENGTH:	10,600 LBS
MAXIMUM TENSION:	1.05 KIP
INITIAL TENSION:	0.64 KIP

NOZZLE SCHEDULE					
ITEM	TYPE	SERVICE	SIZE	RATING	SPEC
TP01	FFSO	WASTE GAS INLET	6"	150#	A-105
TP02	FFWN	TANK GAS INLET	2"	150#	A-105
TP03	FNPT	PILOT GAS INLET	1/2"	3000#	SS316
C1	FNPT	AUXILIARY	3/4"	3000#	A-105

BILL OF MATERIALS			
ITEM	QTY	DESCRIPTION	SPEC
1	1	MAVP-0616 FLARE TIP (TBAF) w/ 2" TANDEM (STD 71006-24-100)	SS304
2	1	AIR FLARE RISER W/ TRI-LEG SUPPORT (TBAF) (STD 71100-04-200)	A-36/A-53-B
3	1	2" UTILITY FLARE RISER (TBF) (TANDEM) (STD 71100-21-201)	A-53-B
4	1	INNER GAS RISER ASSEMBLY, 6" (STD 71006-04-203)	A-53-B
5	3	FLARE SUPPORT LEG (STD 71100-04-210)	A-53-B
6	3	LEG SUPPORT BRACKET (STD 71100-04-211)	SS304
7	1	PILOT TRACK ASSEMBLY (REMOVABLE) (STD 71100-04-240)	CS/PLTD
8	1	MODEL 850 PILOT w/ DUAL ELEMENT THERMOCOUPLE TYPE K (STD 20850-01-G01)	SS304L / SS316
* 9	1	PILOT GAS VALVE TRAIN ASSEMBLY (STD Y1A0010-600)	SS316/ALUM
10	1	PILOT GAS HARNESS MANIFOLD (STD 71100-04-651)	
11	1	RETRACTABLE GAS HOSE x 15ft LG	
12	1	RETRACTABLE ELECTRICAL HARNESS x 15ft LG	
13	1	AMERICAN FAN Co. BLOWER, MODEL 40JM 180T	
14	1	MEDIUM WINCH ASSEMBLY, (DL-WG2000)	
15	1	DRAW CABLE, Ø1/4" 7x19 AIRCRAFT CABLE (T304) x 50'-0" LG	SS304
16	2	CABLE CLAMP, #6	SS304
* 17	1	FLAME ARRESTOR, 6" - 150# FF, ENARDO	ALUM.
* 18	1	FLAME ARRESTOR, 2"-150# FF, ENARDO 70803/D-AAF	ALUM.
* 19	1	Ø16" KNOCKOUT DRUM ASSY (NOT SHOWN) (STD 90100)	A-36 / A-53-B
* 20	3	GUYWIRE, Ø3/8", 6x19 IWRC x 40'-0" w/ THIMBLE ONE END	CS / GALV
* 21	3	LEG SUPPORT BASE PAD (STD 71125)	A-36
* 22	3	SOIL ANCHOR, 4000#	CS
* 23	9	WIRE ROPE CLAMP, 3/8"	CS / GALV
* 24	3	SAFETY SHACKLE, 5/8"	CS / GALV
* 25	1	GASKET, 6"-150# FF, GARLOCK BLUE-GARD 3000	GARLOCK
* 26	1	GASKET, 2"-150# FF, 1/16" THK. GARLOCK 3000#	Nylon-6/6
27	1	GASKET, 2"-150# RF, 1/8" THK. SPIRAL WOUND	SS316/GRA
* 28	8	STUD BOLT, 3/4 x 3 3/4 c/w (2) HVY. HEX NUTS EA., ZINC	A-193-B7 / A-194-2H
29	4	STUD BOLT, 5/8 x 3 1/4 c/w (2) HVY. HEX NUTS EA.	A-193-B8M / A-194-8M
30	12	STUD BOLT, 1/2 x 2 3/4 c/w (2) HVY. HEX NUTS EA.	A-193-B8 / A-194-B8
31	3	HEX BOLT, 7/8" x 7 1/2" LG. c/w (1) LOCK WASHER, (1) FLAT WASHER, & (1) HEX NUT	SAE-J429-5 / A-194-2H
32	6	HEX BOLT, 1/2" x 1 1/2" LG. c/w (1) LOCK WASHER, (1) FLAT WASHER, & (1) HEX NUT	SAE-J429-5 / A-194-2H
33	3	HEX BOLT, 3/8" x 1 1/4" c/w (2) FLAT WASHER, LOCK WASHER & HEX NUT EA	SAE-J429-5 / A-194-2H
34	8	HEX BOLT, 3/8" x 1 1/4" LG. c/w (1) LOCK WASHER, (1) FLAT WASHER & (1) HEX NUT	A-193-B7 / A-194-2H
35	6	CONE NUT, 1/2", UC-100	CS / PLATED
36	6	HEX BOLT, 1/2" x 1" LG, E142	SAE-J429-5
37	3	HEX BOLT, 1/2 x 1 1/2 c/w (1) WASHER & HEX NUT	SAE-J429-5 / A-194-2H
38	6	HEX BOLT, 7/16" x 1 3/4" w/ (2) FLAT WASHERS, (1) LOCK WASHER & HEX NUT	A-193-B7 / A-194-2H

- NOTES: UNLESS OTHERWISE SPECIFIED,**
- ALL BOLT HOLES SHALL STRADDLE COMMON CENTERLINES.
 - SEE PLAN VIEW FOR TRUE ORIENTATIONS.
 - FLARE RISER & TIP ARE DESIGNED & FABRICATED PER ASME SEC VIII, DIV. 1
 - PILOT FUEL & IGNITION PIPING ARE DESIGNED & FABRICATED PER ANSI B31.3
 - PAINT SPECIFICATIONS DO NOT APPLY TO STAINLESS STEEL MATERIALS.
 - ALL NOZZLES AND COUPLINGS TO BE CAPPED OR PLUGGED PRIOR TO SHIPPING.
 - * - OPTIONAL EQUIPMENT.



COATING SPECIFICATION	UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES. DO NOT SCALE DRAWING	PROPRIETARY INFORMATION
SURFACE PREP: SSPC-SP6	TOLERANCE: OVERALL ELEVATION ±1" NOZZLE ELEVATION ±1" GUYWIRE ELEVATION ±1" FRACTIONS: XX ±.08 DECIMALS: XXX ±.01 SQUARENESS: XXX ±.01	THIS DOCUMENT CONTAINS FLARE INDUSTRIES, LLC. PROPRIETARY AND CONFIDENTIAL INFORMATION. IT IS LOANED FOR LIMITED PURPOSES ONLY AND REMAINS THE PROPERTY OF FLARE INDUSTRIES, LLC. IT MAY NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT THE PRIOR WRITTEN CONSENT OF FLARE INDUSTRIES, LLC. THIS DOCUMENT IS TO BE RETURNED UPON REQUEST AND IN ALL EVENTS WITH COMPLETION OF THE USE FOR WHICH IT WAS LOANED.
PRIMER: CARBOLINE, CARBO ZINC C2-11 (GREEN 0300) 2-3 MILS DFT	ANGLE: ±1/16" MAX THIRD ANGLE PROJECTION	
INTERMEDIATE COAT: NONE	QTY REGD: APPROX WEIGHT/LBS NOTED	
TOP COAT: CARBOLINE, CARBOTHANE HB-133 (C703 DARK GRAY) 2-5 MILS DFT		

REV	DATE	ISSUED FOR CONSTRUCTION DESCRIPTION	RJ	TAE	KJH
0	09/11/12	ISSUED FOR CONSTRUCTION			

CUSTOMER/LOCATION		PROJECT NO.	
FLARE INDUSTRIES, LLC.		71006-24-G01	
AUSTIN, TEXAS		STANDARD	

REVISION HISTORY		SCALE	
GENERAL ARRANGEMENT		3/4" = 1'-0"	
MAVP-0616 x 25FT OAH AIR FLARE (TBAF) ASSEMBLY w/ MODEL 850 PILOT & 2" TANDEM		PROJECT NO. STANDARD	
SHEET 1 OF 1		DWG NO. 71006-24-G01	
		REV LEVEL 0	



Please see instructions on second page before filling out the form.

FACILITY AND PERMIT INFORMATION		
1. Facility Name:		2. Facility ID Number:
Northwest Gas Processing, LLC		075-00018
3. Brief Project Description:	Natural Gas and Hydrocarbon Treatment Facility Permit Amendment	
4. Facility Contact Name:		5. Facility Contact Title:
Jennie Kent		Facilities Engineer
6. Facility Contact Telephone Number:		7. Facility Contact Email:
281-944-0656		jkent@altamesa.net
8. Mailing address where permit will be sent (street/city/state/zip code):		9. Physical address of facility (if different than mailing address) (street/city/state/zip code):
15021 Katy Freeway, Suite 400, Houston, Harris County, Texas 77094		4341 Hwy. 30 S., New Plymouth, Payette County, Idaho
10. County Facility is located	Payette	
11. Is the equipment portable?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
12. NAICS codes	Primary NAICS: 211111	Secondary NAICS (if applicable): 211112
13. Brief business description and principal product produced:	Crude Petroleum and Natural Gas Production	
14. Describe any contiguous or adjacent facility this company owns or operates:	N/A	
15. Permit Application Type. Provide Permit Number for existing permit. For a PTC, an application fee is required.	<input type="checkbox"/> Initial Permit to Construct (PTC) <input checked="" type="checkbox"/> PTC Modification	PTC No. <u>P-2013.0059</u> Issued Date <u>7/11/14</u>
	<input type="checkbox"/> Initial Tier II <input type="checkbox"/> Tier II Modification <input type="checkbox"/> Tier II Renewal	Tier II No. _____ Issued Date _____
	<input type="checkbox"/> Initial Tier I <input type="checkbox"/> Tier I Administrative Amendment <input type="checkbox"/> Tier I Minor Modification <input type="checkbox"/> Tier I Significant Modification <input type="checkbox"/> Tier I Renewal	Tier I No. _____ Issued Date _____
16. For Tier I permitted facilities only: If you are applying for a PTC then you must specify how the PTC will be incorporated into the Tier I permit.	<input type="checkbox"/> Incorporate PTC at the time of Tier I renewal (IDAPA 58.01.01.209.05.a) <input type="checkbox"/> Co-process PTC with Tier I Modification (IDAPA 58.01.01.209.05.b) <input type="checkbox"/> Administrative amend the Tier I to incorporate PTC upon applicant's request (IDAPA 58.01.01.209.05.c)	
17. <input checked="" type="checkbox"/> Check here to request facility draft permit before final issuance.		

Certification of Truth, Accuracy, and Completeness (by Responsible Official)

I hereby certify that based on information and belief formed after reasonable inquiry, the statements and information contained in this and any attached and/or referenced document(s) are true, accurate, and complete in accordance with IDAPA 58.01.01.123 124.


 Responsible Official Signature

VP of Midstream
 Responsible Official Title

10/28/16
 Date

David McClure
 Print or Type Responsible Official Name

IDEQ FORMS AND TABLES

SECTION 5.0



Department of Environmental Quality - Air Quality Division Minor Source Permit to Construct Application Completeness Checklist

This checklist is designed to aid the applicant in submitting a complete permit to construct application. In addition to the items in this checklist, information requested by DEQ during review of the application should be provided in accordance with IDAPA 58.01.01.202.03, or the application may be denied.

I. Actions Recommended Before Submitting Application

- X Refer to the Rule. Read the Permit to Construct requirements contained in IDAPA 58.01.01.200-228, Rules for the Control of Air Pollution in Idaho. The Rules are available on the Department of Administration's website (go to <http://adminrules.idaho.gov/rules/current/58/0101.pdf>).
- X Refer to DEQ's Permit to Construct Guidance Document. DEQ has developed a guidance document to aid applicants in submitting a complete permit to construction application. The guidance document is located on DEQ's website (go to <http://www.deq.idaho.gov/media/656219-applicant-deq-responsibilities.pdf>).
- X Consult with DEQ Representatives. It is recommended that the applicant schedule a pre-application meeting with DEQ to discuss application requirements before submitting the permit to construct application. The meeting can be in person or on the phone. Contact DEQ's Air Quality Hotline at **877-5PERMIT** to schedule the pre-application meeting.
- X Submit Ambient Air Quality Modeling Protocol. It is strongly recommended that an ambient air quality modeling protocol be submitted to DEQ at least two (2) weeks before the permit to construct application is submitted. Contact DEQ's Air Quality Hotline at **877-5PERMIT** for information about the protocol.

II. Application Content

Application content should be prepared using the checklist below. The checklist is based on the requirements contained in IDAPA 58.01.01.202.

- X Apply for a Permit to Construct. Submit a Permit to Construct application using forms available on DEQ's website at <http://www.deq.idaho.gov/permitting/air-quality-permitting/forms-checklists.aspx>.
- X Permit to Construct Application Fee. The permit to construct application fee of \$1000 must be submitted at the time the original permit to construct application is submitted. Refer to IDAPA 58.01.01.224. If the permit to construct application is withdrawn or denied and a new application is submitted, a new \$1,000 application fee is required to be submitted. The application fee is not transferable or refundable. The application fee can be paid by check, credit card or Electronic Funds Transfer (EFT). If you choose to pay by credit card or EFT, contact DEQ's Fiscal Office at (208) 373-0502 to complete the necessary paper work. If you choose to pay by check, enclose the check with your permit to construct application.
- X Process Description(s). The process or processes for which construction is requested must be described in sufficient detail and clarity such that a member of the general public not familiar with air quality can clearly understand the proposed project. A process flow diagram is required for each process.
- X Equipment List. All equipment that will be used for which construction is requested must be described in detail. Such description includes, but is not limited to, manufacturer, model number or other descriptor, serial number, maximum process rate, proposed process rate, maximum heat input capacity, stack height, stack diameter, stack gas flowrate, stack gas temperature, etc. All equipment that will be used for which construction is requested must be clearly labeled on the process flow diagram.
- X Potential to Emit. Submit the uncontrolled potential to emit (pre-control equipment emissions estimates) and the controlled potential to emit (post-control equipment emissions estimates) for all equipment for which construction is requested. Any limit on the equipment for which is construction is requested may become a



Department of Environmental Quality

1410 N. Hilton, Boise, ID 83706

For assistance, call the

Air Permit Hotline - 1-877-5PERMIT

AQ-CH-P008

limit on that equipment in the permit to construct.

- X Potential to Emit and Modeled Ambient Concentration for All Regulated Air Pollutants. All proposed emission limits and modeled ambient concentrations for all regulated air pollutants must demonstrate compliance with all applicable air quality rules and regulations. Regulated air pollutants include criteria air pollutants, toxic air pollutants listed pursuant to IDAPA 58.01.01.585 and 586, and hazardous air pollutants listed pursuant to Section 112 of the 1990 Clean Air Act Amendments (go to <http://www.epa.gov/ttn/atw/188polls.html>). Describe in detail how the proposed emissions limits and modeled ambient concentrations demonstrate compliance with each applicable air quality rule and regulation. It is requested that emissions calculations, assumptions, and documentation be submitted with sufficient detail so DEQ can verify the validity of the emissions estimates.
- X Scaled Plot Plan. A scaled plot plan is required, with the location of each proposed process and the equipment that will be used in each process clearly labeled.
- X Schedule for Construction. A schedule for construction is required, including proposed dates for commencement and for completion. For phased projects, proposed dates are required for each phase of the project.
- X List all Applicable Requirements. All applicable requirements must be cited by the rule or regulation section/subpart that applies for each emissions unit.
- X Certification of Permit to Construct Application. The permit to construct application must be signed by the Responsible Official and must contain a certification signed by the Responsible Official. The certification must state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Refer to IDAPA 58.01.01.123.
- X Submit the Permit to Construct Application. Submit the permit to construct application and application fee to the following address:

Air Quality Program Office – Application Processing
Department of Environmental Quality
1410 N. Hilton
Boise, ID 83706-1255



Facility Wide Hazardous Air Pollutant Potential to Emit Application Template and Instructions

Provide the facility wide potential to emit for all Hazardous Air Pollutants (HAPs). **The potential to emit provided here must match the emissions rates which are requested to be permitted.**

HAPs are pollutants that are required to be regulated under the Clean Air Act. A list of the HAPs may be found by following this link: [HAP list](#); review the list carefully to be sure you have included all listed HAPs.

All emissions inventories must be submitted with thorough documentation. The emission inventories will be subjected to technical review; prepare your application with sufficient documentation so that either the public or DEQ can verify the validity of the emission estimates. **Applications submitted without sufficient documentation are incomplete. Follow the instructions provided on the following page; do not proceed until you have read the instructions.**

Applicants must use the Potential to Emit Summary table provided below. Identify the individual HAP with the highest emissions and total HAP emissions. The potential to emit provided here must match the emissions rates which are requested to be permitted. **All fugitive emissions of HAPs must be included.**

Table X HAP POTENTIAL TO EMIT EMISSIONS SUMMARY

HAP Pollutants	PTE (T/yr)
Formaldehyde	5.1990
Benzene	0.1906
Toluene	0.0817
Ethylbenzene	0.0146
Xylene	0.0449
n-Hexane	1.1237
2,2,4-Trimethylpentane	0.0246
Acrolein	0.5059
Methanol	0.3012
Acetaldehyde	0.8228
Total	8.3091

* Maximum Individual HAP

Applicants are encouraged to call DEQ's Air Quality Permit Hotline (1-877-573-7648) to ask questions as they prepare the application.

Emission Inventory Instructions:

1. Use the same emission unit name throughout the application (i.e. in air pollution control equipment forms and for modeling purposes).
2. The application must **show in detail all calculations** used to develop the PTE summary and include:
 - Electronic copies of any spreadsheets used to estimate emissions. If a spreadsheet is used submit an electronic copy of the spread sheet (i.e. Excel File).
 - Documentation of all calculations conducted by hand (i.e. show all calculations).
 - Clear statements on all assumptions relied upon in estimating emissions.
 - Documentation of the emissions factors used to estimate emissions. If the emissions factor documentation is readily available to DEQ, such as an EPA AP-42 emissions factor, a simple reference to the emissions factor suffices. If the emissions factor documentation is not readily available to DEQ the applicant must submit the documentation with the application; ask DEQ if you are uncertain. **Applications without sufficient documentation are incomplete.** Documentation may consist of manufacturer guarantees, research conducted by trade organizations, published emission factors, and source test results. **If there are multiple factors for a given operation, note why the factor used is the most representative.**
 - Copies of manufacturer guarantees upon which emission inventories are based.
 - The best available emission information (see [DEQ's Guidance on Emissions Data Hierarchy](#)).
 - If source tests are used as the basis for emissions estimates the source test report must be submitted. If the source test report is on file with DEQ provide the date of the source test was submitted along with the name of the facility and the emission unit that was tested. Source data from similar emissions units may be considered reliable provided it is clearly described why the sources are similar. Similar sources are those that the applicant has shown serve a similar function, use similar raw materials, and have similar processing rates.
2. **All fugitive emissions of HAPs must be included¹.**

¹ November 27, 2001 (66 FR 59161), EPA published a rule, "Change to Definition of Major Source," that requires the fugitive emissions of all hazardous air pollutants ("HAPs") listed under section 112(b) of the Act in determining whether the source is a major source.



Toxic Air Pollutant Emissions Inventory Application Template and Instructions

Applicants must demonstrate preconstruction compliance with toxic air pollutant (TAP) standards contained in IDAPA 58.01.01.210 (*Rules for the Control of Air Pollution in Idaho*). DEQ has developed a TAP completeness checklist in order to assist applicants. DEQ strongly recommends that applicants complete and submit this checklist as part of the application. **Applications which do not follow one of the available methods for demonstrating compliance described in the checklist will be determined incomplete or denied.** Follow this link to the checklist: [Toxic Air Pollutant Application Completeness Checklist](#). Be sure to calculate emissions correctly for the averaging periods as described in the checklist and in the instructions on page 3.

The type of TAP emissions inventory required depends upon which method is used to demonstrate compliance (see the [Toxic Air Pollutant Application Completeness Checklist](#)). **All TAP emissions inventories must be summarized using the emissions inventory summary tables provided below** (Table 1 and Table 2).

The applicant must **document all emission calculations as described in the instructions provided on the following page. Applications without sufficient documentation are incomplete; do not proceed until you have read the instructions.**

Applicants are encouraged to call DEQ’s Air Quality Permit Hotline (1-877-573-7648) to ask questions as they prepare the application.

**Table 1. PRE- AND POST PROJECT NON-CARCINOGENIC TAP EMISSIONS SUMMARY
POTENTIAL TO EMIT**

Non-Carcinogenic Toxic Air Pollutants (sum of all emissions)	Pre-Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Post Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Change in 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Non-Carcinogenic Screening Emission Level (lb/hr)	Exceeds Screening Level? (Y/N)
n-Hexane	0.0162	0.2566	0.2403	12	See Protocol
224-Trimethylpentane	0.0017	0.0056	0.0039	23.3	See Protocol
Toluene	0.0029	0.0187	0.0158	25	See Protocol
Ethylbenzene	0.0002	0.0033	0.0031	29	See Protocol
Xylene	0.0011	0.0103	0.0092	29	See Protocol

Acrolein	0.0245	0.1155	0.0910	0.017	See Protocol
1,2-dichloropropane	0.0001	0.0006	0.0005	23.133	See Protocol
Biphenyl	0.0010	0.0048	0.0038	0.1	See Protocol
Chlorobenzene	0.0001	0.0007	0.0005	23.3	See Protocol
Chloroethane	0.0000	0.0000	0.0000	27	See Protocol
Cyclopentane	0.0011	0.0051	0.0040	114.67	See Protocol
Methanol	0.0146	0.0688	0.0542	17.3	See Protocol
Methylcyclohexane	0.0059	0.0354	0.0296	107	See Protocol
n-Nonane	0.0005	0.0237	0.0232	70	See Protocol
n-Octane	0.0017	0.0953	0.0936	93.3	See Protocol
n-pentane	0.0372	0.5682	0.5310	118	See Protocol
Naphthalene	0.0005	0.0022	0.0017	3.33	See Protocol
Phenol	0.0001	0.0005	0.0004	1.27	See Protocol
Heptane	0.0174	0.3257	0.3083	109	See Protocol
cyclohexane	0.0000	0.0112	0.0112	70	See Protocol

Table 2. PRE- AND POST PROJECT CARCINOGENIC TAP EMISSIONS SUMMARY POTENTIAL TO EMIT

Carcinogenic Toxic Air Pollutants (sum of all emissions)	Pre-Project Annual Average Emissions Rates for Units at the Facility (lb/hr)	Post Project Annual Average Emissions Rates for Units at the Facility (lb/hr)	Change in Annual Average Emissions Rates for Units at the Facility (lb/hr)	Carcinogenic Screening Emission Level (lb/hr)	Exceeds Screening Level? (Y/N)
HCHO	0.2516	1.1870	0.9354	5.10E-04	See Protocol
Benzene	0.0077	0.0435	0.0358	8.00E-04	See Protocol

acetaldehyde	0.0398	0.1879	0.1481	3.00E-03	See Protocol
1,1-dichloroethane	0.0001	0.0005	0.0004	2.50E-04	See Protocol
1,2-dichloroethane	0.0001	0.0005	0.0004	2.50E-04	See Protocol
1,1,2-Trichloroethane	0.0002	0.0007	0.0006	4.20E-04	See Protocol
1,1,2,2-Tetrachloroethane	0.0002	0.0009	0.0007	1.10E-05	See Protocol
1,3-butadiene	0.0032	0.0149	0.0117	2.40E-05	See Protocol
1,3-dichloropropene	0.0001	0.0006	0.0005	1.90E-07	See Protocol
Benzo(e)pyrene	0.0000	0.0000	0.0000	2.00E-06	See Protocol
Carbon Tetrachloride	0.0002	0.0008	0.0007	4.40E-04	See Protocol
Chloroform	0.0001	0.0006	0.0005	2.80E-04	See Protocol
Ethylene Dibromide	0.0002	0.0010	0.0008	3.00E-05	See Protocol
Methylene Chloride	0.0002	0.0009	0.0007	1.60E-03	See Protocol
PAH	0.0007	0.0032	0.0025	9.10E-05	See Protocol
Vinyl Chloride	0.0001	0.0003	0.0003	9.40E-04	See Protocol

- a) *[If you have POM include the following footnote.]* Polycyclic Organic Matter (POM) is considered as one TAP comprised of: benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenzo(a,h)anthracene, chrysene, indeno(1,2,3-cd)pyrene, benzo(a)pyrene. The total is compared to benzo(a)pyrene.

Pre-project average emissions are the existing allowable emission rates.

Post-project average emissions are the new proposed emission rates.

Emission Inventory Instructions:

1. The averaging period for the emission rate depends upon whether the TAP is non-carcinogenic or carcinogenic. Non-carcinogenic TAP emissions are averaged over 24 hours, carcinogenic TAP emissions are averaged over 8760 hours.

For more explanation on averaging periods, see the [Toxic Air Pollutant Application Completeness Checklist](#).

2. **Pre-project** average emissions are the existing allowable emission rates.

Post-project average emissions are the new proposed emission rates.

3. Use the same emission unit name/designation throughout the application (i.e. air pollution control equipment forms and modeling forms).
4. The emission inventories will be subjected to technical review; prepare your application with sufficient documentation so that the public and DEQ can verify the validity of the emission estimates. The application must **show in detail all emission calculations** used to develop the emission inventory summary and must include the following:
 - **Clear documentation of any emissions averaging that was used.** For instance if a source only operates 8 hours during any day and the emissions during that 8 hour period are averaged over 24 hours then this must be clearly described in the application. The emissions averaging calculations must also be shown.
 - Electronic copies of any spreadsheets used to estimate emissions. If a spreadsheet is used submit an electronic copy of the spread sheet (i.e. Excel File).
 - Documentation of all calculations conducted by hand (i.e. show all calculations).
 - Clear statements on all assumptions relied upon in estimating emissions.
 - Documentation of the emissions factors used to estimate emissions. If the emissions factor documentation is readily available to DEQ, such as an EPA AP-42 emissions factor, a simple reference to the emissions factor suffices. If the emissions factor documentation is not readily available to DEQ the applicant must submit the documentation with the application; ask DEQ if you are uncertain. **Applications without sufficient documentation are incomplete.** Documentation may consist of manufacturer guarantees, research conducted by trade organizations, published emission factors, and source test results. **If there are multiple factors for a given operation, note why the factor used is the most representative.**
 - Copies of manufacturer guarantees upon which emission inventories are based.
 - The best available emission information (see [DEQ's Guidance on Emissions Data Hierarchy](#)).
 - If source tests are used as the basis for emissions estimates the source test report must be submitted. If the source test report is on file with DEQ provide the date of the source test was submitted along with the name of the facility and the emission unit that was tested. Source test data from similar emissions units may be considered reliable provided it is clearly described why the sources are similar. Similar sources are those that the applicant has shown serve a similar function, use similar raw materials, and have similar processing rates.



Facility Wide Potential to Emit Emission Inventory Application Template and Instructions

For new stationary sources provide the facility's potential to emit for all NSR Regulated Air Pollutants. The potential to emit provided here must match the emissions rates which are requested to be permitted.

For modifications to existing facilities (including the addition of new emissions units), if the existing facility classification is in question an existing facility wide potential to emit emission inventory will be required to be submitted¹. Contact DEQ to determine if a facility wide emission inventory for the existing facility is required.

All emissions inventories must be submitted with thorough documentation. The emission inventories will be subjected to technical review. Therefore, prepare your application with sufficient documentation so that the public and DEQ can verify the validity of the emission estimates. **Applications submitted without sufficient documentation are incomplete. Follow the instructions provided on page 2; do not proceed until you have read the instructions.**

Applicants must use the Potential to Emit Summary table provided below.

Table 1. POTENTIAL TO EMIT FOR NSR REGULATED POLLUTANTS

Emissions Unit	VOC T/yr	NO _x ^a T/yr	CO ^a T/yr	PM ₁₀ ^a T/yr	PM _{2.5} ^a T/yr	SO ₂ ^a T/yr
Point Sources						
ENG1	2.9425	5.8850	5.8850	0.4047	0.4047	0.0123
ENG2	2.9425	5.8850	5.8850	0.4047	0.4047	0.0123
ENG3	6.6568	13.3137	13.3137	0.9651	0.9651	0.0292
ENG4	0.6855	1.9585	3.9169	0.1359	0.1359	0.0041
Heaters	0.1547	2.8132	2.3631	0.2138	0.1604	0.0169
FLR1	5.0570	1.7714	8.0755	0.0437	0.0437	0.0138
FLR2	22.5479	2.6489	12.0759	0.0437	0.0437	0.0138
Fugitive Sources						
<i>{For listed source categories only, see item 3 below in the instructions}</i>						
Totals	40.9869	34.2756	51.5151	2.2116	2.1582	0.1023

a) NSR Regulated air Pollutants are defined² as: Particulate Matter (PM, PM-10, PM-2.5), Carbon Monoxide, Lead, Nitrogen Dioxide, Ozone (VOC), Sulfur Dioxide, CO_{2e}³, Green House Gases (GHG) mass, all pollutants regulated by

¹ The applicant must determine if the existing facility is a major facility. If the facility is an existing PSD major facility and changes are being made to the facility the major modification test must be conducted.

² 40 CFR 52.21(b)(50), as incorporated by reference at IDAPA 58.01.01.107.03.d

³ Multiply each green house gas (GHG) by the global warming potential (GWP) listed at 40 CFR 98, Table A- 1 of Subpart A then sum all values to determine CO_{2e} (GHGs are carbon dioxide, nitrous oxide, methane, hydrofluorcarbons, perfluorcarbons, sulfur hexafluoride). Be sure to show all calculations as described in the instructions.

Applicants are encouraged to call DEQ's Air Quality Permit Hotline (1-877-573-7648) to ask questions as they prepare the application. **Emission Inventory Instructions:**

1. Use the same emission unit name throughout the application (i.e. in air pollution control equipment forms and for modeling purposes).
2. The application must **show in detail all calculations** used to develop the PTE summary and include:
 - Electronic copies of any spreadsheets used to estimate emissions. If a spreadsheet is used submit an electronic copy of the spread sheet (i.e. Excel File).
 - Documentation of all calculations conducted by hand (i.e. show all calculations).
 - Clear statements on all assumptions relied upon in estimating emissions.
 - Documentation of the emissions factors used to estimate emissions. If the emissions factor documentation is readily available to DEQ, such as an EPA AP-42 emissions factor, a simple reference to the emissions factor suffices. If the emissions factor documentation is not readily available to DEQ the applicant must submit the documentation with the application; ask DEQ if you are uncertain. **Applications without sufficient documentation are incomplete.** Documentation may consist of manufacturer guarantees, research conducted by trade organizations, published emission factors, and source test results. **If there are multiple factors for a given operation, note why the factor used is the most representative.**
 - Copies of manufacturer guarantees upon which emission inventories are based.
 - The best available emission information (see [DEQ's Guidance on Emission Data Hierarchy](#)).
 - If source tests are used as the basis for emissions estimates the source test report must be submitted. If the source test report is on file with DEQ provide the date of the source test was submitted along with the name of the facility and the emission unit that was tested. Source data from similar emissions units may be considered reliable provided it is clearly described why the sources are similar. Similar sources are those that the applicant has shown serve a similar function, use similar raw materials, and have similar processing rates.
3. Fugitive emissions of NSR regulated air pollutants from the source categories listed below must be included in the emission inventory.

Listed Source Categories for Inclusion of Fugitive Emissions

- Coal cleaning plants (with thermal dryers)
- Kraft pulp mills
- Portland cement plants
- Primary zinc smelters
- Iron and steel mills
- Primary aluminum ore reduction plants
- Primary copper smelters
- Municipal incinerators -250 T/day of refuse
- Hydrofluoric, sulfuric, or nitric acid plants
- Petroleum refineries
- Lime plants
- Phosphate rock processing plants
- Coke oven batteries
- Sulfur recovery plants
- Carbon black plants (furnace process)
- Primary lead smelters
- Fuel conversion plants
- Sintering plants
- Secondary metal production plants
- Chemical process plants (excluding ethanol plants by natural fermentation).
- Fossil-fuel fired boilers totaling more than 250 MMBtu/hr
- Petroleum storage and transfer units with total capacity of 300,000 barrels
- Taconite ore processing plants
- Glass fiber processing plants
- Charcoal production plants
- Fossil fuel-fired steam electric plants greater than 250 MMBtu/hr)
- Categories regulated by NSPS or NESHAP prior to 8/7/80



Ambient Impact Assessment Emission Inventory for New Minor Facilities and Minor Modifications Application Template and Instructions

New Minor Facilities or Minor Modifications to Existing Facilities

Applicants must demonstrate that the source will not cause or significantly contribute to a violation of an ambient air quality standard for criteria pollutants¹. As described in the [State of Idaho Air Quality Modeling Guideline](#), there are three methods that an applicant can use to demonstrate compliance:

- Method 1.** Demonstrate that emissions from the new and/or modified existing facility are below air quality modeling thresholds that are listed in the [State of Idaho Air Quality Modeling Guideline](#).
- Method 2.** Demonstrate that emissions from the new and/or modified source will not cause ambient impacts at or above significant ambient impact levels (Significant Impact Analysis or Preliminary Analysis).
- Method 3.** Demonstrate that facility wide emissions, when combined with co-contributing sources and background levels, do not cause an exceedance of ambient standards (Cumulative Analysis).

The type of emission inventory required depends upon which method is used to demonstrate compliance. In the following pages the type of emission inventory that is required to be submitted is discussed for each method. DEQ strongly recommends that the applicant develop and submit for DEQ approval a written modeling protocol prior to submitting the application (refer to the [State of Idaho Air Quality Modeling Guideline](#)). The modeling protocol must address what types of emission inventories are required for modeling, and address which fugitive emissions must be included.

All modeling emission inventories must be summarized using the emission inventory summary table provided below (Table 1).

The applicant must document all emission calculations and follow the emission inventory instructions provided. **Applications without sufficient documentation are incomplete; do not proceed until you have read the instructions on page 6.**

¹ Rules for the Control of Air Pollution in Idaho (IDAPA 58.01.01.203 & 403)

Table 1 Emission Increase/Actual Emissions/Proposed Emissions/Existing Allowable Emissions (pick the appropriate header for the specific purpose after reading the instructions)

Emissions Unit	Stack or Emissions Point ID ^a	PM ₁₀	PM _{2.5}		SO ₂		NO _x		CO		Lead	
		lb/hr 24-hr Avg.	lb/hr 24-hr Avg.	lb/hr Annual Avg.	lb/hr Max.	lb/hr 3-hr Avg.	lb/hr Max.	lb/hr Annual Avg.	lb/hr Max.	lb/hr 8-hr Avg.	lb/hr monthly Avg.	lb/hr 1/4ly Avg.
Point Sources												
Engine	ENG1	0.0924	0.0924	0.0924	0.0028	0.0028	1.3436	1.3436	1.3436	1.3436	0.0	0.0
Engine	ENG2	0.0924	0.0924	0.0924	0.0028	0.0028	1.3436	1.3436	1.3436	1.3436	0.0	0.0
Engine	ENG3	0.9651	0.9651	0.9651	0.0292	0.0292	3.0396	3.0396	3.0396	3.0396	0.0	0.0
Engine	ENG4	0.0310	0.0310	0.0310	0.0009	0.0009	0.4471	0.4471	0.8943	0.8943	0.0	0.0
Heaters	See Heater Page	0.0488	0.0366	0.0366	0.0039	0.0039	0.6423	0.6423	0.5395	0.5395	0.0	0.0
Flare	FLR1	0.0100	0.0100	0.0100	0.0032	0.0032	0.4044	0.4044	1.8437	1.8437	0.0	0.0
Flare	FLR2	0.0100	0.0100	0.0100	0.0032	0.0032	0.6048	0.6048	2.7571	2.7571	0.0	0.0
Fugitive Sources												
XXX	F01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XXX	F02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XXX	F03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

a) Stack or Emissions Point ID must match the ID used in the air dispersion model.

Applicants are encouraged to call DEQ’s Air Quality Permit Hotline (1-877-573-7648) to ask questions as they prepare the application.

Following are descriptions of the types of emission inventories that are required for each of the three methods that can be used to demonstrate that the source will not cause or significantly contribute to a violation of ambient air quality standards for criteria pollutants. These descriptions are also covered in the [State of Idaho Air Quality Modeling Guideline](#). The following descriptions are intended to be general guidelines that apply to the vast majority of situations. Even though they cover the vast majority of situations they are not intended to act in place of a DEQ approved modeling protocol that is developed based on consideration of site specific emissions units and air pollution dispersion characteristics.

Method 1

Demonstrate that emissions from the new and/or modified existing facility are below air quality modeling thresholds that are listed in the [State of Idaho Air Quality Modeling Guideline](#).

- New facilities Calculate proposed allowable, or potential to emit, of all new emissions units. “All” emissions units includes those units that would have otherwise qualified for an exemption (do not omit any sources).

- Provide an emission inventory summary table for proposed allowable emissions using the template provided above.

Modified Facilities

New Emission Units (including Replacement units) – This includes new units that are replacing existing emission units.

Calculate the proposed allowable emissions, or potential to emit, of all new emissions units. “All” emissions units includes those units that would have otherwise qualified for an exemption (do not omit any sources).

The emission reduction associated with removal of an existing emission unit will not typically be considered in the evaluation of whether emissions exceed modeling thresholds. Prior written DEQ approval is necessary for any emission reduction to be credited in evaluation of whether emissions exceed modeling thresholds.

Provide an emission inventory summary table for proposed allowable emissions using the template provided.

Modified Existing Non-permitted Emission Units – Non-permitted means those emission units not included in a PTC or Tier II operating permit. The emissions units that must be included are all of the emissions units that are part of the project. ***Project*** means a physical change in, or change in the method of operation of, an existing stationary source. **Sources not being physically modified but which could experience emissions increases that result from the change^{2,3} are required to be included in the project.**

For emission units that air pollution dispersion characteristics do not change (i.e. stack height, diameter, flow rate, temperature), calculate the emission increase as the difference of proposed allowable emissions and actual emissions. Actual emissions shall be calculated using the units actual operating hours, production rates, types of materials processed, stored, or combusted during the two during a two year period prior to submitting the application. Actual emissions should represent normal source operations, DEQ may grant written approval of a different time period provided it is demonstrated that it is more representative of normal source operation.

For emission units that air pollution dispersion characteristics do change, comparison to the modeling threshold should be based on the total allowable emissions rate of the modified source.

Provide an emission inventory summary table for proposed allowable emissions using the template provided. For emission units that air pollution dispersion characteristics do not change also provide an emission inventory summary table for actual emissions and emission increase.

Modified Existing Permitted Emission Units – Permitted means those units included in a PTC or Tier II operating permit.

For emission units that air pollution dispersion characteristics do not change (i.e. stack height, diameter, flow rate, temperature), calculate the emission increase as the difference of proposed allowable emissions and the previous allowable emissions.

² David Neleigh, Chief, Air Permits Section EPA Region 6. Letter to Dawson Lasseter, Air Quality Division, Oklahoma DEQ, January 27, 2005.

³ R. Douglas Neeley, Chief, Air & Radiation Technology Section, Letter to Rs. Rhonda Banks Thompson, South Carolina Department of Health and Environmental Control, March 14, 1997 (“... when a particular physical change or change in the method of operation would cause an increase in emissions from other emissions units, then those “other” emissions must be included in determining PSD applicability for the particular change.”)

For emission units that air pollution dispersion characteristics do change, comparison to the modeling threshold should be based on the total allowable emissions rate of the modified source.

Provide an emission inventory summary table for proposed allowable emissions and the emissions increase using the template provided. For emission units that air pollution dispersion characteristics do not change also provide an emission inventory summary table for existing allowable emissions.

Method 2

Demonstrate that emissions from the new and/or modified source will not cause ambient impacts at or above significant ambient impact levels (Significant Impact Analysis or Preliminary Analysis).

New Facilities Calculate proposed allowable emissions, or potential to emit, of all new emissions units. “All” emissions units includes those units that would have otherwise qualified for an exemption (do not omit any sources). Model the emission rate(s) following a DEQ approved Modeling Protocol and determine if a significant impact occurs.

Modified Facilities ***New Emission Units (including Replacement units)*** – This includes new units that are replacing existing emission units.

Calculate proposed allowable emissions, or potential to emit, of all new emissions units. “All” emissions units includes those units that would have otherwise qualified for an exemption (do not omit any sources).

Calculate the emission reduction associated with removal of an existing emission unit.

- For existing permitted emission units the reduction is equal to the permitted emission rate or the potential to emit. Permitted means those units included in a PTC or Tier II operating permit.
- For existing non-permitted emission units the reduction is based on actual emission of the unit. Actual emissions shall be calculated using the units actual operating hours, production rates, types of materials processed, stored, or combusted during a two during a two year period prior to submitting the application. Actual emissions should represent normal source operations, DEQ may grant written approval of a different time period provided it is demonstrated that it is more representative of normal source operation.

Model the emission rate(s) following a DEQ approved Modeling Protocol and determine if a significant impact occurs. Shutdown emission units are typically modeled as negative emission rates.

Modified Existing Non-permitted Emission Units – Non-permitted means those units not included in a PTC or Tier II operating permit. The emissions units that must be included are all of the emissions units that are part of the project. ***Project*** means a physical change in, or change in the method of operation of, an existing stationary source. ***Sources not being physically modified but which could experience emissions increases that result from the change^{4,5} are required to be included in the project.***

⁴ David Neleigh, Chief, Air Permits Section EPA Region 6. Letter to Dawson Lasseter, Air Quality Division, Oklahoma DEQ, January 27, 2005.

For emission units that air pollution dispersion characteristics do not change (i.e. stack height, diameter, flow rate, temperature), calculate the emission increase as the difference of proposed allowable emissions and actual emissions. Actual emissions shall be calculated using the units actual operating hours, production rates, types of materials processed, stored, or combusted during a two year period prior to the modification. Actual emissions should represent normal source operations, DEQ may grant written approval of a different time period provided it is demonstrated that it is more representative of normal source operation. Provide the proposed allowable, actual emissions and emission increase using the template provided.

For emission units that air pollution dispersion characteristics do change, modeling is based on the total allowable emissions rate of the modified source. Provide the proposed allowable emissions rates using the template provided. Model the emission rate(s) following a DEQ approved Modeling Protocol and determine if a significant impact occurs.

Modified Existing Permitted Emission Units – Permitted means those units included in a PTC or Tier II operating permit.

For emission units that air pollution dispersion characteristics do not change (i.e. stack height, diameter, flow rate, temperature), calculate the emission increase as the difference of proposed allowable emissions and the previous allowable emissions. Provide the proposed allowable emissions rates, previous allowable emission rates, and emission increase using the template provided.

For emission units that air pollution dispersion characteristics do change, modeling should be based on the total allowable emissions rate of the modified source. Provide the proposed allowable emissions rates using the template provided.

Model the emission rate(s) following a DEQ approved Modeling Protocol and determine if a significant impact occurs.

Method 3

Demonstrate that facility wide emissions, when combined with co-contributing sources and background levels, do not cause an exceedance of ambient standards (Cumulative Analysis).

Calculate proposed allowable emissions of all emissions units. All emissions units includes those units that would have otherwise qualified for an exemption if they were the only unit being constructed (do not omit any sources). Provide the proposed allowable emissions rates using the template provided. Model the emission rate(s) following a DEQ approved Modeling Protocol, add the appropriate background concentration value, and determine if violation of a standard occurs.

⁵ R. Douglas Neeley, Chief, Air & Radiation Technology Section, Letter to Rs. Rhonda Banks Thompson, South Carolina Department of Health and Environmental Control, March 14, 1997 (“... when a particular physical change or change in the method of operation would cause an increase in emissions from other emissions units, then those “other” emissions must be included in determining PSD applicability for the particular change.”)

Modeling Emission Inventory Instructions:

1. Use the same emission unit name throughout the application (i.e. in air pollution control equipment forms and for modeling purposes).
2. The application must **show in detail all calculations** used to develop the PTE summary and include:
 - Electronic copies of any spreadsheets used to estimate emissions. If a spreadsheet is used submit an electronic copy of the spread sheet (i.e. Excel File).
 - Documentation of all calculations conducted by hand (i.e. show all calculations).
 - Clear statements on all assumptions relied upon in estimating emissions.
 - Documentation of the emissions factors used to estimate emissions. If the emissions factor documentation is readily available to DEQ, such as an EPA AP-42 emissions factor, a simple reference to the emissions factor suffices. If the emissions factor documentation is not readily available to DEQ the applicant must submit the documentation with the application; ask DEQ if you are uncertain. **Applications without sufficient documentation are incomplete.** Documentation may consist of manufacturer guarantees, research conducted by trade organizations, published emission factors, and source test results. **If there are multiple factors for a given operation, note why the factor used is the most representative.**
 - Copies of manufacturer guarantees upon which emission inventories are based.
 - The best available emission information (see [DEQ's Guidance on Emissions Data Hierarchy](#)).
 - If source tests are used as the basis for emissions estimates the source test report must be submitted. If the source test report is on file with DEQ provide the date of the source test was submitted along with the name of the facility and the emission unit that was tested. Source data from similar emissions units may be considered reliable provided it is clearly described why the sources are similar. Similar sources are those that the applicant has shown serve a similar function, use similar raw materials, and have similar processing rates.
3. **Input to the computer model must match the emission inventory in the summary table(s).** Additionally, the emissions inventory calculations that are submitted must also match the summary table. It would seem that this could go without saying, **but there are a surprising number of applications received where emission calculations do not match the input to the computer model.** DEQ recommends that the applicant print the emission inventory input file in the model and compare it to this summary table (this is one of the first things that DEQ will check during the completeness review). If the inventories do not match the application is incomplete.
4. DEQ highly recommends that a written modeling protocol be submitted for approval prior to conducting modeling. The modeling protocol should address which fugitive emissions must be included. Idaho's Air Quality Modeling Guideline states the following types of fugitive emissions sources should be included:

“Process fugitive emissions from material handling, processing, etc.
Fugitive emissions from vehicle traffic on facility roadways and wind erosion emissions from storage piles will not typically be considered for minor source permitting unless DEQ determines such sources may have a substantial contribution.”
5. The applicant must complete the Modeling Information Workbook ([Form MI](#)) to provide other modeling input parameters.



Please see instructions on page 2 before filling out the form.

IDENTIFICATION

1. Company Name	2. Facility Name:
Northwest Gas Processing, LLC	Highway 30 Treating Facility
3. Brief Project Description:	The proposed facility will allow for natural gas and natural gas condensate production. Specifically, natural gas will be routed to a refrigeration plant where NGL(s) & LPG(s) will be recovered and sold. Natural gas remaining in the facility will be routed to the nearby Williams Northwest Transmission pipeline for transport.

IC ENGINE DESCRIPTION AND SPECIFICATIONS

4. Type of unit: New unit Unpermitted existing unit Modification to an existing permitted unit? Permit number: _____

Full-time operation (non-emergency standby use)?

Emergency standby use only (operation limited to 100 hrs/yr for maintenance and testing and emergency use only)?

Emergency fire pump use only?

Stationary test cell/stand operation only (as defined in NSPS Subpart ZZZZ)?

National security operation only (as defined in NSPS Subpart ZZZZ)?

Institutional emergency standby IC engine (as defined in NSPS Subpart ZZZZ)?

IC ENGINE SPECIFICATIONS

Questions 5 through 15 apply to **all IC engines**.

5. IC Engine Manufacturer: TBD 6. Model: TBD 7. Date manufactured: TBD 8. Model year: TBD

9. Date of installation (if an existing IC engine): NA 10. IC Engine cylinder displacement: _____ liters per cylinder

11. Maximum rated horsepower (per the data plate/manufacturer specifications): 610 bhp

12. EPA Certification: Tier certification number _____ or None/not tier certified

13. Ignition type: Spark Compression

14. Fuel combusted in the IC engine? Distillate fuel oil Natural gas/LNG LPG/propane
 If distillate fuel oil (#1, #2, or a mixture) is used, what is the maximum sulfur content? 15 ppm (0.0015% by weight) 500 ppm (0.05% by weight)

15. IC engine exhaust stack parameters: Diameter 8 inches Height 18 feet Temperature 1075 °F Flow rate 3032 acfm

IC ENGINE EMISSIONS PARAMETERS

Questions 16 through 27 apply to **full-time** non-Tier certified IC engines or Tier certified IC engines manufactured prior to July 11, 2005. If you are proposing a Tier certified IC engine manufactured on and after July 11, 2005 or an emergency standby IC engine do not answer questions 17 through 27.

16. Testing schedule (for emergency standby IC engines only): _____ hrs/day _____ hrs/mon _____ hrs/qtr _____ hrs/yr

17. Maximum daily operation: 24 hrs/day 18. Maximum annual operation: 8760 hrs/yr **Note:** These operational limits will be placed in the permit.

19. Will CO emissions be limited to a specific ppmvd (i.e. 49 or 23 ppmvd)? Yes No 20. What will the CO emissions limit be? NA ppmvd

21. Will CO emissions be reduced by 70% or more? Yes No

22. Will a CEMS (Continuous Emissions Monitoring System) be used to measure pollutants in the IC engine exhaust stream? Yes No

23. Will a CPMS (Continuous Parameters Monitoring System) be used to measure parameters of the IC engine exhaust stream? Yes No

24. Will the IC engine be equipped with an oxidation catalyst? Yes No

25. If applicable, will the oxidation catalyst be equipped with a temperature measurement system to ensure it is operating properly? Yes No

26. Will the IC engine be equipped with a diesel particulate filter? Yes No

27. If applicable, will the diesel particulate filter be equipped with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached? Yes No

Instructions for Form EU1

Please refer to IDAPA 58.01.01.220 for a list of the general exemption criteria for Permit to Construct exemptions.

- 1 – 3. Provide the same company name, facility name (if different), and brief project description as on Form GI. This is useful if the application pages are separated.

USE ATTACHMENT IF ADDITIONAL SPACE IS REQUIRED.

General Information:

4. Indicate whether the IC engine is a new unit, unpermitted existing unit, being modified, and whether it will be permitted to operate full-time or for emergency use only.

IC Engine Specifications:

- 5-8. Provide the IC engine manufacturer, model, date the IC engine was manufactured, and the model year (used for EPA certification purposes) of the IC engine.
9. Provide the date of installation of the IC engine.
10. Provide the IC engine cylinder displacement (i.e. 12 liter engine with 8 cylinders = 1.5 liters per cylinder).
11. Provide the maximum horsepower of the IC engine (per the data plate) in bhp.
12. Provide the EPA Tier certification number of the IC engine (i.e. 1, 2, 3, or 4).
13. Provide the IC engine ignition type.
14. Check which fuel is combusted in the IC engine. If distillate fuel oil is combusted, check the maximum proposed sulfur content of the fuel.
15. Provide the IC engine exhaust stack parameters. The temperature and flow rate should be per the IC engine manufacturer. If the stack height is very tall, provide a justification for the exhaust gas temperature.

IC Engine Emissions Parameters:

Questions 16 through 27 apply to **full-time** non-Tier certified IC engines or Tier certified IC engines manufactured prior to July 11, 2005. If you are proposing a Tier certified IC engine manufactured on and after July 11, 2005 or an emergency standby IC engine do not answer questions 17 through 27.

16. For emergency IC engines only, propose a testing schedule.
17. Propose a maximum daily IC engine hourly limit. **Note:** Unless it is 24 hours per day of operation, this proposed daily hourly limit will be placed in the permit.
18. Propose a maximum annual IC engine hourly limit. **Note:** Unless it is 8,760 hours per year of operation, this proposed annual hourly limit will be placed in the permit.
- 19-21. Subpart ZZZZ requires that CO emissions in the exhaust from existing non-Tier certified IC engines are either limited to a specific concentration, 49 ppmvd for engines rated at 300 bhp to \leq 500 bhp or 23 ppmvd for engines rated at $>$ 500 bhp, or are to reduce the CO concentration by 70% or more. Therefore, “yes” should only be answered to one of these two questions.
- 22-23. Subpart ZZZZ requires that, for IC engines rated at $>$ 500 bhp, Applicants either install a CEMS (Continuous Emissions Monitoring System) or a CPMS (Continuous Parameters Monitoring System) in the exhaust stream to demonstrate compliance with the emissions limitations. Therefore, “yes” should only be answered to one of these two questions.
24. Specify if the IC engine is equipped, or will need to be equipped, with an oxidation catalyst to comply with the emissions limitations of Subpart ZZZZ.
25. Specify if the oxidation catalyst will be equipped with a temperature measurement system to ensure that is operating properly to comply with the emissions limitations of Subpart ZZZZ.
26. Specify if the IC engine is equipped, or will need to be equipped, with a diesel particulate filter to comply with the emissions limitations of Subpart ZZZZ.
27. Specify if the diesel particulate filter will be equipped with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.



Please see instructions on page 2 before filling out the form.

IDENTIFICATION

1. Company Name	2. Facility Name:
Northwest Gas Processing, LLC	Highway 30 Treating Facility
3. Brief Project Description:	The proposed facility will allow for natural gas and natural gas condensate production. Specifically, natural gas will be routed to a refrigeration plant where NGL(s) & LPG(s) will be recovered and sold. Natural gas remaining in the facility will be routed to the nearby Williams Northwest Transmission pipeline for transport.

IC ENGINE DESCRIPTION AND SPECIFICATIONS

4. Type of unit: New unit Unpermitted existing unit Modification to an existing permitted unit? Permit number: _____

Full-time operation (non-emergency standby use)?

Emergency standby use only (operation limited to 100 hrs/yr for maintenance and testing and emergency use only)?

Emergency fire pump use only?

Stationary test cell/stand operation only (as defined in NSPS Subpart ZZZZ)?

National security operation only (as defined in NSPS Subpart ZZZZ)?

Institutional emergency standby IC engine (as defined in NSPS Subpart ZZZZ)?

IC ENGINE SPECIFICATIONS

Questions 5 through 15 apply to **all IC engines**.

5. IC Engine Manufacturer: TBD 6. Model: TBD 7. Date manufactured: TBD 8. Model year: TBD

9. Date of installation (if an existing IC engine): NA 10. IC Engine cylinder displacement: _____ liters per cylinder

11. Maximum rated horsepower (per the data plate/manufacturer specifications): 610 bhp

12. EPA Certification: Tier certification number _____ or None/not tier certified

13. Ignition type: Spark Compression

14. Fuel combusted in the IC engine? Distillate fuel oil Natural gas/LNG LPG/propane
 If distillate fuel oil (#1, #2, or a mixture) is used, what is the maximum sulfur content? 15 ppm (0.0015% by weight) 500 ppm (0.05% by weight)

15. IC engine exhaust stack parameters: Diameter 8 inches Height 18 feet Temperature 1075 °F Flow rate 3032 acfm

IC ENGINE EMISSIONS PARAMETERS

Questions 16 through 27 apply to **full-time** non-Tier certified IC engines or Tier certified IC engines manufactured prior to July 11, 2005. If you are proposing a Tier certified IC engine manufactured on and after July 11, 2005 or an emergency standby IC engine do not answer questions 17 through 27.

16. Testing schedule (for emergency standby IC engines only): _____ hrs/day _____ hrs/mon _____ hrs/qtr _____ hrs/yr

17. Maximum daily operation: 24 hrs/day 18. Maximum annual operation: 8760 hrs/yr **Note:** These operational limits will be placed in the permit.

19. Will CO emissions be limited to a specific ppmvd (i.e. 49 or 23 ppmvd)? Yes No 20. What will the CO emissions limit be? NA ppmvd

21. Will CO emissions be reduced by 70% or more? Yes No

22. Will a CEMS (Continuous Emissions Monitoring System) be used to measure pollutants in the IC engine exhaust stream? Yes No

23. Will a CPMS (Continuous Parameters Monitoring System) be used to measure parameters of the IC engine exhaust stream? Yes No

24. Will the IC engine be equipped with an oxidation catalyst? Yes No

25. If applicable, will the oxidation catalyst be equipped with a temperature measurement system to ensure it is operating properly? Yes No

26. Will the IC engine be equipped with a diesel particulate filter? Yes No

27. If applicable, will the diesel particulate filter be equipped with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached? Yes No

Instructions for Form EU1

Please refer to IDAPA 58.01.01.220 for a list of the general exemption criteria for Permit to Construct exemptions.

- 1 – 3. Provide the same company name, facility name (if different), and brief project description as on Form GI. This is useful if the application pages are separated.

USE ATTACHMENT IF ADDITIONAL SPACE IS REQUIRED.

General Information:

4. Indicate whether the IC engine is a new unit, unpermitted existing unit, being modified, and whether it will be permitted to operate full-time or for emergency use only.

IC Engine Specifications:

- 5-8. Provide the IC engine manufacturer, model, date the IC engine was manufactured, and the model year (used for EPA certification purposes) of the IC engine.
9. Provide the date of installation of the IC engine.
10. Provide the IC engine cylinder displacement (i.e. 12 liter engine with 8 cylinders = 1.5 liters per cylinder).
11. Provide the maximum horsepower of the IC engine (per the data plate) in bhp.
12. Provide the EPA Tier certification number of the IC engine (i.e. 1, 2, 3, or 4).
13. Provide the IC engine ignition type.
14. Check which fuel is combusted in the IC engine. If distillate fuel oil is combusted, check the maximum proposed sulfur content of the fuel.
15. Provide the IC engine exhaust stack parameters. The temperature and flow rate should be per the IC engine manufacturer. If the stack height is very tall, provide a justification for the exhaust gas temperature.

IC Engine Emissions Parameters:

Questions 16 through 27 apply to **full-time** non-Tier certified IC engines or Tier certified IC engines manufactured prior to July 11, 2005. If you are proposing a Tier certified IC engine manufactured on and after July 11, 2005 or an emergency standby IC engine do not answer questions 17 through 27.

16. For emergency IC engines only, propose a testing schedule.
17. Propose a maximum daily IC engine hourly limit. **Note:** Unless it is 24 hours per day of operation, this proposed daily hourly limit will be placed in the permit.
18. Propose a maximum annual IC engine hourly limit. **Note:** Unless it is 8,760 hours per year of operation, this proposed annual hourly limit will be placed in the permit.
- 19-21. Subpart ZZZZ requires that CO emissions in the exhaust from existing non-Tier certified IC engines are either limited to a specific concentration, 49 ppmvd for engines rated at 300 bhp to \leq 500 bhp or 23 ppmvd for engines rated at $>$ 500 bhp, or are to reduce the CO concentration by 70% or more. Therefore, "yes" should only be answered to one of these two questions.
- 22-23. Subpart ZZZZ requires that, for IC engines rated at $>$ 500 bhp, Applicants either install a CEMS (Continuous Emissions Monitoring System) or a CPMS (Continuous Parameters Monitoring System) in the exhaust stream to demonstrate compliance with the emissions limitations. Therefore, "yes" should only be answered to one of these two questions.
24. Specify if the IC engine is equipped, or will need to be equipped, with an oxidation catalyst to comply with the emissions limitations of Subpart ZZZZ.
25. Specify if the oxidation catalyst will be equipped with a temperature measurement system to ensure that is operating properly to comply with the emissions limitations of Subpart ZZZZ.
26. Specify if the IC engine is equipped, or will need to be equipped, with a diesel particulate filter to comply with the emissions limitations of Subpart ZZZZ.
27. Specify if the diesel particulate filter will be equipped with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.



Please see instructions on page 2 before filling out the form.

IDENTIFICATION

1. Company Name	2. Facility Name:
Northwest Gas Processing, LLC	Highway 30 Treating Facility
3. Brief Project Description:	The proposed facility will allow for natural gas and natural gas condensate production. Specifically, natural gas will be routed to a refrigeration plant where NGL(s) & LPG(s) will be recovered and sold. Natural gas remaining in the facility will be routed to the nearby Williams Northwest Transmission pipeline for transport.

IC ENGINE DESCRIPTION AND SPECIFICATIONS

4. Type of unit:	<input type="checkbox"/> New unit <input checked="" type="checkbox"/> Unpermitted existing unit <input type="checkbox"/> Modification to an existing permitted unit? Permit number: _____ <input checked="" type="checkbox"/> Full-time operation (non-emergency standby use)? <input type="checkbox"/> Emergency standby use only (operation limited to 100 hrs/yr for maintenance and testing and emergency use only)? <input type="checkbox"/> Emergency fire pump use only? <input type="checkbox"/> Stationary test cell/stand operation only (as defined in NSPS Subpart ZZZZ)? <input type="checkbox"/> National security operation only (as defined in NSPS Subpart ZZZZ)? <input type="checkbox"/> Institutional emergency standby IC engine (as defined in NSPS Subpart ZZZZ)?
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IC ENGINE SPECIFICATIONS

Questions 5 through 15 apply to **all IC engines**.

- 5. IC Engine Manufacturer: TBD 6. Model: TBD 7. Date manufactured: TBD 8. Model year: TBD
- 9. Date of installation (if an existing IC engine): NA 10. IC Engine cylinder displacement: _____ liters per cylinder
- 11. Maximum rated horsepower (per the data plate/manufacture specifications): 1380 bhp
- 12. EPA Certification: Tier certification number _____ or None/not tier certified
- 13. Ignition type: Spark Compression
- 14. Fuel combusted in the IC engine? Distillate fuel oil Natural gas/LNG LPG/propane
 If distillate fuel oil (#1, #2, or a mixture) is used, what is the maximum sulfur content? 15 ppm (0.0015% by weight) 500 ppm (0.05% by weight)
- 15. IC engine exhaust stack parameters: Diameter 10 inches Height 20 feet Temperature 1019 °F Flow rate 9300 acfm

IC ENGINE EMISSIONS PARAMETERS

Questions 16 through 27 apply to **full-time** non-Tier certified IC engines or Tier certified IC engines manufactured prior to July 11, 2005. If you are proposing a Tier certified IC engine manufactured on and after July 11, 2005 or an emergency standby IC engine do not answer questions 17 through 27.

- 16. Testing schedule (for emergency standby IC engines only): _____ hrs/day _____ hrs/mon _____ hrs/qtr _____ hrs/yr
- 17. Maximum daily operation: 24 hrs/day 18. Maximum annual operation: 8760 hrs/yr **Note:** These operational limits will be placed in the permit.
- 19. Will CO emissions be limited to a specific ppmvd (i.e. 49 or 23 ppmvd)? Yes No 20. What will the CO emissions limit be? NA ppmvd
- 21. Will CO emissions be reduced by 70% or more? Yes No
- 22. Will a CEMS (Continuous Emissions Monitoring System) be used to measure pollutants in the IC engine exhaust stream? Yes No
- 23. Will a CPMS (Continuous Parameters Monitoring System) be used to measure parameters of the IC engine exhaust stream? Yes No
- 24. Will the IC engine be equipped with an oxidation catalyst? Yes No
- 25. If applicable, will the oxidation catalyst be equipped with a temperature measurement system to ensure it is operating properly? Yes No
- 26. Will the IC engine be equipped with a diesel particulate filter? Yes No
- 27. If applicable, will the diesel particulate filter be equipped with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached? Yes No

Instructions for Form EU1

Please refer to IDAPA 58.01.01.220 for a list of the general exemption criteria for Permit to Construct exemptions.

- 1 – 3. Provide the same company name, facility name (if different), and brief project description as on Form GI. This is useful if the application pages are separated.

USE ATTACHMENT IF ADDITIONAL SPACE IS REQUIRED.

General Information:

4. Indicate whether the IC engine is a new unit, unpermitted existing unit, being modified, and whether it will be permitted to operate full-time or for emergency use only.

IC Engine Specifications:

- 5-8. Provide the IC engine manufacturer, model, date the IC engine was manufactured, and the model year (used for EPA certification purposes) of the IC engine.
9. Provide the date of installation of the IC engine.
10. Provide the IC engine cylinder displacement (i.e. 12 liter engine with 8 cylinders = 1.5 liters per cylinder).
11. Provide the maximum horsepower of the IC engine (per the data plate) in bhp.
12. Provide the EPA Tier certification number of the IC engine (i.e. 1, 2, 3, or 4).
13. Provide the IC engine ignition type.
14. Check which fuel is combusted in the IC engine. If distillate fuel oil is combusted, check the maximum proposed sulfur content of the fuel.
15. Provide the IC engine exhaust stack parameters. The temperature and flow rate should be per the IC engine manufacturer. If the stack height is very tall, provide a justification for the exhaust gas temperature.

IC Engine Emissions Parameters:

Questions 16 through 27 apply to **full-time** non-Tier certified IC engines or Tier certified IC engines manufactured prior to July 11, 2005. If you are proposing a Tier certified IC engine manufactured on and after July 11, 2005 or an emergency standby IC engine do not answer questions 17 through 27.

16. For emergency IC engines only, propose a testing schedule.
17. Propose a maximum daily IC engine hourly limit. **Note:** Unless it is 24 hours per day of operation, this proposed daily hourly limit will be placed in the permit.
18. Propose a maximum annual IC engine hourly limit. **Note:** Unless it is 8,760 hours per year of operation, this proposed annual hourly limit will be placed in the permit.
- 19-21. Subpart ZZZZ requires that CO emissions in the exhaust from existing non-Tier certified IC engines are either limited to a specific concentration, 49 ppmvd for engines rated at 300 bhp to \leq 500 bhp or 23 ppmvd for engines rated at $>$ 500 bhp, or are to reduce the CO concentration by 70% or more. Therefore, "yes" should only be answered to one of these two questions.
- 22-23. Subpart ZZZZ requires that, for IC engines rated at $>$ 500 bhp, Applicants either install a CEMS (Continuous Emissions Monitoring System) or a CPMS (Continuous Parameters Monitoring System) in the exhaust stream to demonstrate compliance with the emissions limitations. Therefore, "yes" should only be answered to one of these two questions.
24. Specify if the IC engine is equipped, or will need to be equipped, with an oxidation catalyst to comply with the emissions limitations of Subpart ZZZZ.
25. Specify if the oxidation catalyst will be equipped with a temperature measurement system to ensure that is operating properly to comply with the emissions limitations of Subpart ZZZZ.
26. Specify if the IC engine is equipped, or will need to be equipped, with a diesel particulate filter to comply with the emissions limitations of Subpart ZZZZ.
27. Specify if the diesel particulate filter will be equipped with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.



Please see instructions on page 2 before filling out the form.

IDENTIFICATION

1. Company Name	2. Facility Name:
Northwest Gas Processing, LLC	Highway 30 Treating Facility
3. Brief Project Description:	The proposed facility will allow for natural gas and natural gas condensate production. Specifically, natural gas will be routed to a refrigeration plant where NGL(s) & LPG(s) will be recovered and sold. Natural gas remaining in the facility will be routed to the nearby Williams Northwest Transmission pipeline for transport.

IC ENGINE DESCRIPTION AND SPECIFICATIONS

4. Type of unit: New unit Unpermitted existing unit Modification to an existing permitted unit? Permit number: _____

Full-time operation (non-emergency standby use)?

Emergency standby use only (operation limited to 100 hrs/yr for maintenance and testing and emergency use only)?

Emergency fire pump use only?

Stationary test cell/stand operation only (as defined in NSPS Subpart ZZZZ)?

National security operation only (as defined in NSPS Subpart ZZZZ)?

Institutional emergency standby IC engine (as defined in NSPS Subpart ZZZZ)?

IC ENGINE SPECIFICATIONS

Questions 5 through 15 apply to **all IC engines**.

5. IC Engine Manufacturer: TBD 6. Model: TBD 7. Date manufactured: TBD 8. Model year: TBD

9. Date of installation (if an existing IC engine): NA 10. IC Engine cylinder displacement: _____ liters per cylinder

11. Maximum rated horsepower (per the data plate/manufacture specifications): 203 bhp

12. EPA Certification: Tier certification number _____ or None/not tier certified

13. Ignition type: Spark Compression

14. Fuel combusted in the IC engine? Distillate fuel oil Natural gas/LNG LPG/propane
 If distillate fuel oil (#1, #2, or a mixture) is used, what is the maximum sulfur content? 15 ppm (0.0015% by weight) 500 ppm (0.05% by weight)

15. IC engine exhaust stack parameters: Diameter 6 inches Height 12 feet Temperature 1004 °F Flow rate 973 acfm

IC ENGINE EMISSIONS PARAMETERS

Questions 16 through 27 apply to **full-time** non-Tier certified IC engines or Tier certified IC engines manufactured prior to July 11, 2005. If you are proposing a Tier certified IC engine manufactured on and after July 11, 2005 or an emergency standby IC engine do not answer questions 17 through 27.

16. Testing schedule (for emergency standby IC engines only): _____ hrs/day _____ hrs/mon _____ hrs/qtr _____ hrs/yr

17. Maximum daily operation: 24 hrs/day 18. Maximum annual operation: 8760 hrs/yr **Note:** These operational limits will be placed in the permit.

19. Will CO emissions be limited to a specific ppmvd (i.e. 49 or 23 ppmvd)? Yes No 20. What will the CO emissions limit be? NA ppmvd

21. Will CO emissions be reduced by 70% or more? Yes No

22. Will a CEMS (Continuous Emissions Monitoring System) be used to measure pollutants in the IC engine exhaust stream? Yes No

23. Will a CPMS (Continuous Parameters Monitoring System) be used to measure parameters of the IC engine exhaust stream? Yes No

24. Will the IC engine be equipped with an oxidation catalyst? Yes No

25. If applicable, will the oxidation catalyst be equipped with a temperature measurement system to ensure it is operating properly? Yes No

26. Will the IC engine be equipped with a diesel particulate filter? Yes No

27. If applicable, will the diesel particulate filter be equipped with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached? Yes No

Instructions for Form EU1

Please refer to IDAPA 58.01.01.220 for a list of the general exemption criteria for Permit to Construct exemptions.

- 1 – 3. Provide the same company name, facility name (if different), and brief project description as on Form GI. This is useful if the application pages are separated.

USE ATTACHMENT IF ADDITIONAL SPACE IS REQUIRED.

General Information:

4. Indicate whether the IC engine is a new unit, unpermitted existing unit, being modified, and whether it will be permitted to operate full-time or for emergency use only.

IC Engine Specifications:

- 5-8. Provide the IC engine manufacturer, model, date the IC engine was manufactured, and the model year (used for EPA certification purposes) of the IC engine.
9. Provide the date of installation of the IC engine.
10. Provide the IC engine cylinder displacement (i.e. 12 liter engine with 8 cylinders = 1.5 liters per cylinder).
11. Provide the maximum horsepower of the IC engine (per the data plate) in bhp.
12. Provide the EPA Tier certification number of the IC engine (i.e. 1, 2, 3, or 4).
13. Provide the IC engine ignition type.
14. Check which fuel is combusted in the IC engine. If distillate fuel oil is combusted, check the maximum proposed sulfur content of the fuel.
15. Provide the IC engine exhaust stack parameters. The temperature and flow rate should be per the IC engine manufacturer. If the stack height is very tall, provide a justification for the exhaust gas temperature.

IC Engine Emissions Parameters:

Questions 16 through 27 apply to **full-time** non-Tier certified IC engines or Tier certified IC engines manufactured prior to July 11, 2005. If you are proposing a Tier certified IC engine manufactured on and after July 11, 2005 or an emergency standby IC engine do not answer questions 17 through 27.

16. For emergency IC engines only, propose a testing schedule.
17. Propose a maximum daily IC engine hourly limit. **Note:** Unless it is 24 hours per day of operation, this proposed daily hourly limit will be placed in the permit.
18. Propose a maximum annual IC engine hourly limit. **Note:** Unless it is 8,760 hours per year of operation, this proposed annual hourly limit will be placed in the permit.
- 19-21. Subpart ZZZZ requires that CO emissions in the exhaust from existing non-Tier certified IC engines are either limited to a specific concentration, 49 ppmvd for engines rated at 300 bhp to \leq 500 bhp or 23 ppmvd for engines rated at $>$ 500 bhp, or are to reduce the CO concentration by 70% or more. Therefore, "yes" should only be answered to one of these two questions.
- 22-23. Subpart ZZZZ requires that, for IC engines rated at $>$ 500 bhp, Applicants either install a CEMS (Continuous Emissions Monitoring System) or a CPMS (Continuous Parameters Monitoring System) in the exhaust stream to demonstrate compliance with the emissions limitations. Therefore, "yes" should only be answered to one of these two questions.
24. Specify if the IC engine is equipped, or will need to be equipped, with an oxidation catalyst to comply with the emissions limitations of Subpart ZZZZ.
25. Specify if the oxidation catalyst will be equipped with a temperature measurement system to ensure that is operating properly to comply with the emissions limitations of Subpart ZZZZ.
26. Specify if the IC engine is equipped, or will need to be equipped, with a diesel particulate filter to comply with the emissions limitations of Subpart ZZZZ.
27. Specify if the diesel particulate filter will be equipped with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

IDEQ REGULATORY ANALYSIS

SECTION 6.0



DEQ AIR QUALITY PROGRAM
 1410 N. Hilton, Boise, ID 83706
 For assistance, call the
Air Permit Hotline – 1-877-5PERMIT

AIR PERMIT APPLICATION

Revision 6
 10/7/09

For each box in the table below, CTRL+click on the blue underlined text for instructions and information.

IDENTIFICATION	
1. Company Name: Northwest Gas Processing, LLC	2. Facility Name: Highway 30 Treating Facility
3. Brief Project Description: Natural Gas Extraction and Production	
APPLICABILITY DETERMINATION	
4. List applicable subparts of the New Source Performance Standards (NSPS) (40 CFR part 60). Examples of NSPS affected emissions units include internal combustion engines, boilers, turbines, etc. The applicant must thoroughly review the list of affected emissions units.	List of applicable subpart(s): Subpart OOOO <input type="checkbox"/> Not Applicable
5. List applicable subpart(s) of the National Emission Standards for Hazardous Air Pollutants (NESHAP) found in 40 CFR part 61 and 40 CFR part 63 . Examples of affected emission units include solvent cleaning operations, industrial cooling towers, paint stripping and miscellaneous surface coating. EPA has a web page dedicated to NESHAP that should be useful to applicants.	List of applicable subpart(s): Subpart ZZZZ <input type="checkbox"/> Not Applicable
6. For each subpart identified above, conduct a complete a regulatory analysis using the instructions and referencing the example provided on the following pages. Note - Regulatory reviews must be submitted with sufficient detail so that DEQ can verify applicability and document in legal terms why the regulation applies. Regulatory reviews that are submitted with insufficient detail will be determined incomplete.	<input checked="" type="checkbox"/> A detailed regulatory review is provided (Follow instructions and example). <input type="checkbox"/> DEQ has already been provided a detailed regulatory review. Give a reference to the document including the date.
IF YOU ARE UNSURE HOW TO ANSWER ANY OF THESE QUESTIONS, CALL THE AIR PERMIT HOTLINE AT 1-877-5PERMIT	
<p><i>It is emphasized that it is the applicant's responsibility to satisfy all technical and regulatory requirements, and that DEQ will help the applicant understand what those requirements are <u>prior</u> to the application being submitted but that DEQ will not perform the required technical or regulatory analysis on the applicant's behalf.</i></p>	

Instructions for Form FRA

Item 4 & 5. It is important that facilities review the most recent federal regulations when submitting their permit application to DEQ. Current federal regulations can be found at the following Web site: http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?&c=ecfr&tpl=/ecfrbrowse/Title40/40tab_02.tpl.

Item 6. For each applicable subpart identified under items 4-5 conduct a complete regulatory analysis. The facility must follow the procedure given below or obtain permission from DEQ to provide the necessary information using an alternative procedure:

1. Retrieve a TEXT or PDF copy of the applicable federal regulation subpart(s) online at <http://www.gpoaccess.gov/cfr/retrieve.html>
2. Copy and paste the regulation(s) into your DEQ air permit application.
3. Highlight or underline sections in the regulation(s) that are applicable to the source(s).
4. Under each section of the subpart, explain why the source is subject to the section, or why the source is not subject to the section. When providing the explanation use a different font than the regulation (i.e. ***bold, italic***) so that it is easy for the reader to determine the text that the applicant has provided. An example NSPS regulatory analysis is attached. The applicant must provide all necessary information needed to determine applicability. If information is lacking or the analysis is incomplete the application will be determined incomplete.

EPA provides a web site dedicated to NSPS/NESHAP applicability determinations that may be useful to applicants. Follow this link to the applicability determination index [Clean Air Act Applicability Determination Index - Compliance Monitoring - EPA](#). Another useful source of information is the preamble to the regulation which is published in the Federal Register on the date the regulation was promulgated. Federal Registers may be found online at [Federal Register: Main Page](#). The date the regulation was published in the Federal Register is included in the footnotes of the regulation.

5. DEQ will assist in identifying the applicable requirements that the applicant must include in the application but will not perform the required technical or regulatory analysis on the applicant's behalf. Applicants should contact the Air Quality Permit Hotline (1-877-573-7648) to discuss NSPS/NESHAP regulatory analysis requirements or to schedule a meeting.
6. It also benefits facilities to document a non-applicability determination on federal air regulations which appear to apply to the facility but actually do not. A non-applicability determination will avoid future confusion and expedite the air permit application review. If you conduct an applicability determination and find that your activity is not NSPS or NESHAP affected facility an analysis should be submitted using the methods described above.
7. **It is not sufficient to simply provide a copy of the NSPS or NESHAP. The applicant must address each section of the regulation as described above and as shown in the example that is provided.**

EXAMPLE OF A NSPS REGULATORY ANALYSIS

[Title 40, Volume 6]
[Revised as of July 1, 2008]
From the U.S. Government Printing Office via GPO Access
[CITE: 40CFR60]

TITLE 40--PROTECTION OF ENVIRONMENT

CHAPTER I--ENVIRONMENTAL PROTECTION AGENCY (CONTINUED)

PART 60 STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES--
Table of Contents

Subpart H Standards of Performance for Sulfuric Acid Plants

Sec.60.80 Applicability and designation of affected facility.

(a) The provisions of this subpart are applicable to each sulfuric acid production unit, which is the affected facility.

(b) Any facility under paragraph (a) of this section that commences construction or modification after August 17, 1971, is subject to the requirements of this subpart.

ACME Chemicals, Inc. is proposing to construct after August 17, 1971 a sulfuric acid plant which burns elemental sulfur as defined by 40 CFR 60.81(a). ACME is therefore affected by this subpart.

(Be sure to use the terms of the regulation to describe applicability; usually applicability is determined based on a specific date, definition of an affected facility, and rated input capacity. All of the applicability criteria must be addressed by the applicant.)

Note - if a determination of non-applicability is being submitted it is not necessary to address the remaining non-applicable regulatory sections. Be sure to provide the applicability determination in terms of the regulation (i.e. construction/modification date, rated input capacity, definition of affected facility).

Sec.60.81 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

(a) Sulfuric acid production unit means any facility producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide, organic sulfides and mercaptans, or acid sludge, but does not include facilities where conversion to sulfuric acid is utilized primarily as a means of preventing emissions to the atmosphere of sulfur dioxide or other sulfur compounds.

(b) Acid mist means sulfuric acid mist, as measured by Method 8 of appendix A to this part or an equivalent or alternative method.

ACME Chemicals, Inc. has read and understands these definitions and used them in providing this regulatory analysis.

Sec.60.82 Standard for sulfur dioxide.

(a) On and after the date on which the performance test required to be conducted by Sec.60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which contain sulfur dioxide in excess of 2 kg per metric ton of acid produced (4 lb per ton), the production being expressed as 100 percent H₂/SO₄/.

ACME Chemicals, Inc. is subject to this standard and has provided a documented emission inventory (or manufacturer guarantee) which shows compliance.

Sec.60.83 Standard for acid mist.

(a) On and after the date on which the performance test required to be conducted by Sec.60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which:

(1) Contain acid mist, expressed as H₂/SO₄/, in excess of 0.075 kg per metric ton of acid produced (0.15 lb per ton), the production being expressed as 100 percent H₂/SO₄/.

ACME Chemicals, Inc. is subject to this standard and has provided a documented emission inventory (or manufacturer guarantee) which shows compliance.

(2) Exhibit 10 percent opacity, or greater.

ACME Chemicals, Inc. understands that this will become a permit condition and has supplied a manufacturer guarantee that the sulfuric acid plant will comply with this standard.

Sec.60.84 Emission monitoring.

(a) A continuous monitoring system for the measurement of sulfur dioxide shall be installed, calibrated, maintained, and operated by the owner or operator. The pollutant gas used to prepare calibration gas mixtures under Performance Specification 2 and for calibration checks under Sec.60.13(d), shall be sulfur dioxide (SO₂/). Method 8 shall be used for conducting monitoring system performance evaluations under Sec.60.13(c) except that only the sulfur dioxide portion of the Method 8 results shall be used. The span value shall be set at 1000 ppm of sulfur dioxide.

(b) The owner or operator shall establish a conversion factor for the purpose of converting monitoring data into units of the applicable standard (kg/metric ton, lb/ton). The conversion factor shall be determined, as a minimum, three times daily by measuring the concentration of sulfur dioxide entering the converter using suitable methods (e.g., the Reich test, National Air Pollution Control Administration Publication No. 999-AP-13) and calculating the appropriate conversion factor for each eight-hour period as follows:

$$CF=k[(1.000-0.015r)/(r-s)]$$

where:

CF=conversion factor (kg/metric ton per ppm, lb/ton per ppm).
 k=constant derived from material balance. For determining CF in metric units, k=0.0653. For determining CF in English units, k=0.1306.
 r=percentage of sulfur dioxide by volume entering the gas converter.
 Appropriate corrections must be made for air injection plants subject to the Administrator's approval.
 s=percentage of sulfur dioxide by volume in the emissions to the atmosphere determined by the continuous monitoring system required under paragraph (a) of this section.

(c) The owner or operator shall record all conversion factors and values under paragraph (b) of this section from which they were computed (i.e., CF, r, and s).

ACME Chemicals, Inc. is not proposing to utilize Sections 60.84(a)-(c) listed above to monitor emissions. Instead ACME Chemicals is utilizing 40 CFR 60.84(d) listed below to monitor emissions of sulfur dioxide.

(d) Alternatively, a source that processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen may use the following continuous emission monitoring approach and calculation procedures in determining SO₂/ emission rates in terms of the standard. This procedure is not required, but is an alternative that would alleviate problems encountered in the measurement of gas velocities or production rate. Continuous emission monitoring systems for measuring SO₂/, O₂/, and CO₂/ (if required) shall be installed, calibrated, maintained, and operated by the owner or operator and subjected to the certification procedures in Performance Specifications 2 and 3. The calibration procedure and span value for the SO₂/ monitor shall be as specified in paragraph (b) of this section. The span value for CO₂/ (if required) shall be 10 percent and for O₂/ shall be 20.9 percent (air). A conversion factor based on process rate data is not necessary. Calculate the SO₂/ emission rate as follows:

$$Es = (Cs / S) / [0.265 - (0.126 \%O_2) - (A \%CO_2)]$$

where:

Es/=emission rate of SO₂/, kg/metric ton (lb/ton) of 100 percent of H₂/SO₄/ produced.

Cs/=concentration of SO₂/, kg/dscm (lb/dscf).

S=acid production rate factor, 368 dscm/metric ton (11,800 dscf/ton) of 100 percent H₂/SO₄/ produced.

%O₂/=oxygen concentration, percent dry basis.

A=auxiliary fuel factor,

=0.00 for no fuel.

=0.0226 for methane.

=0.0217 for natural gas.

=0.0196 for propane.

=0.0172 for No 2 oil.

=0.0161 for No 6 oil.

=0.0148 for coal.

=0.0126 for coke.

%CO₂/= carbon dioxide concentration, percent dry basis.

Note: It is necessary in some cases to convert measured concentration units to other units for these calculations:

Use the following table for such conversions:

From--	To--	Multiply by--
g/scm.....	kg/scm.....	10-3
mg/scm.....	kg/scm.....	10-6
ppm (SO2).....	kg/scm.....	2.660x10-6
ppm (SO2).....	lb/scf.....	1.660x10-7

ACME Chemicals, Inc. has elected to use the monitoring requirements of the preceding section.

(e) For the purpose of reports under Sec.60.7(c), periods of excess emissions shall be all three-hour periods (or the arithmetic average of three consecutive one-hour periods) during which the integrated average sulfur dioxide emissions exceed the applicable standards under Sec.60.82.

ACME acknowledges that this section applies to the sulfuric acid plant.

Sec.60.85 Test methods and procedures.

(a) In conducting the performance tests required in Sec.60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in Sec.60.8(b). Acceptable alternative methods and procedures are given in paragraph (c) of this section.

(b) The owner or operator shall determine compliance with the SO2/ acid mist, and visible emission standards in Sec. Sec. 60.82 and 60.83 as follows:

(1) The emission rate (E) of acid mist or SO2/ shall be computed for each run using the following equation:

$$E=(CQsd/)/(PK)$$

where:

E=emission rate of acid mist or SO2/ kg/metric ton (lb/ton) of 100 percent H2/SO4/ produced.

C=concentration of acid mist or SO2/, g/dscm (lb/dscf).

Qsd/=volumetric flow rate of the effluent gas, dscm/hr (dscf/hr).

P=production rate of 100 percent H2/SO4/, metric ton/hr (ton/hr).

K=conversion factor, 1000 g/kg (1.0 lb/lb).

(2) Method 8 shall be used to determine the acid mist and SO2/ concentrations (C's) and the volumetric flow rate (Qsd/) of the effluent gas. The moisture content may be considered to be zero. The sampling time and sample volume for each run shall be at least 60 minutes and 1.15 dscm (40.6 dscf).

(3) Suitable methods shall be used to determine the production rate (P) of 100 percent H2/SO4/ for each run. Material balance over the production system shall be used to confirm the production rate.

(4) Method 9 and the procedures in Sec.60.11 shall be used to determine opacity.

(c) The owner or operator may use the following as alternatives to

the reference methods and procedures specified in this section:

(1) If a source processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen, the following procedure may be used instead of determining the volumetric flow rate and production rate:

(i) The integrated technique of Method 3 is used to determine the O₂/ concentration and, if required, CO₂/ concentration.

(ii) The SO₂/ or acid mist emission rate is calculated as described in Sec.60.84(d), substituting the acid mist concentration for Cs/ as appropriate.

ACME Chemicals, Inc. acknowledges that performance tests shall be conducted as specified above.

Detailed Regulatory Analysis

Attainment Designation (40 CFR 81.313)

The facility is located in Payette County, which is designated as attainment or unclassifiable for PM2.5, PM10, SO2, NO2, CO, and Ozone. Refer to 40 CFR 83.313 for additional information.

Permit to Construct (IDAPA 58.01.01.201)

The permittee is requesting that a PTC revision be issued to the facility for the existing permitted facility.

Permit to Construct (IDAPA 58.01.01.213)

Pre-permit construction approval is available for non-major sources and non-major modifications and for new sources and modifications proposed in accordance with Subsection 213.01.d. Pre-permit construction is not available for any new source or modification that: uses emissions netting to stay below major source levels; uses optional offsets pursuant to Section 206; or would have an adverse impact on the air quality values of Any Class I area. Owners or operators may ask the Department for the ability to commence construction or modification of qualifying sources under Section 213 before receiving the required permit to construct. To obtain the Department's pre-permit construction approval, the owner or operator shall satisfy the following requirements.

RESPONSE: Northwest Gas Processing (NWGP) is not requesting pre-permit construction approval. The proposed facility is not a major source of emissions and the project is not a request for the modification of an existing major source. The facility is not utilizing netting or offsets in construction. The facility will not have an adverse impact on air quality, nor is the facility located in a Class I area.

(a) The owner or operator shall apply for a permit to construct in accordance with Subsections 202.01.a., 202.02, and 202.03 of this chapter.

RESPONSE: The facility is applying for a revision to the permit to construct in accordance with the rules identified.

(b) The owner or operator shall consult with Department representatives prior to submitting a pre-permit construction approval application.

RESPONSE: The facility consulted with Department representatives on October 7, 2013. Additional consultations have occurred regarding required modeling, public meeting, and other application form requirements.

(c) The owner or operator shall submit a pre-permit construction approval application which must contain, but not be limited to: a letter requesting the ability to construct before obtaining the required permit to construct, a copy of the notice referenced in Subsection 213.02; proof of eligibility; process description(s); equipment list(s); proposed emission limits and modeled ambient concentrations for all regulated pollutants and toxic air pollutants, such that they demonstrate compliance with all applicable air quality rules and regulations. The models shall be conducted in accordance with Subsection 202.02 and with written Department approved protocol and submitted with sufficient detail so that modeling can be duplicated by the Department.

RESPONSE: The facility is not requesting pre-permit construction approval, proof of eligibility (contained within application), process descriptions, equipment lists, proposed emissions limits, and modeling data.

(d) Owners or operators seeking limitations on a source's potential to emit such that permitted emissions will be either below major source levels or below a significant increase must describe in detail in the pre-permit construction application the proposed restrictions and certify in accordance with Section 123 that they will comply with the restrictions, including any applicable monitoring and reporting requirements.

RESPONSE: The facility is not a major source of air emissions.

Tier II Operating Permit (IDAPA 58.01.01.401)

The permitted is not requesting an optional Tier II operating permit, therefore IDAPA 58.01.01.400-410 is not applicable at this time.

Visible Emissions (IDAPA 58.01.01.625)

The sources of PM_{2.5} and PM₁₀ emissions at the proposed facility, while subject to the State of Idaho visible emissions standards, are not expected to exceed 20% opacity.

Standards for New Sources (IDAPA 58.01.01.676)

This project involves revising the existing emissions table for two (2) process flares, one (1) natural gas IC engine, and one (1) process heater.

Title V Classification (IDA.01.01.300, 40 CFR Part 70)

IDAPA 58.01.01.006.118 defines a Tier I source as any source located at a major facility as defined in Section 008. IDAPA 58.01.01.008.10 defines a major facility as either:

- For HAPs a facility with the potential to emit ten (10) tons per year (tpy) or more of hazardous air pollutants, other than radionuclides, or

- The facility emits or has the PTE twenty-five (25) tpy or more of any combination of any HAPs, other than radionuclides.

or, for non-attainment areas (Note: the State of Idaho currently has no serious non-attainment areas therefore the Major Source threshold is defined as follows):

- The facility emits or has the PTE one-hundred (100) tpy or more of any regulated air pollutant. The fugitive emissions shall not be considered in determining whether the facility is major unless the facility is a “Designated Facility”.

The proposed facility will not emit greater than 10 tpy single or 25 tpy combined HAPS emissions. Additionally, the facility will not emit greater than 100 tpy of any regulated air pollutant.

PSD Classification (40 CFR 52.21)

The proposed facility is not a major stationary source as defined in 40 CFR 52.21(b)(1). The facility is not a designated facility as defined in 40 CFR 52.21(b)(1)(i)(a), and does not have facility-wide emissions of any criteria pollutant that exceed 250 tpy.

NSPS Applicability (40 CFR 60)

- 40 CFR Part 60 Subpart OOOO
 - Pneumatic Controllers
 - Single continuous bleed natural gas driven pneumatic controllers only. Intermittent bleed devices are not subject to the rule.
 - NGPPs
 - 3rd Party LDAR Tagging, Maintenance, and Monitoring Program Monitoring Program

Subpart OOOO—Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution

[SOURCE: 77 FR 49542, Aug, 16, 2012, unless otherwise noted.]

§60.5360 What is the purpose of this subpart?

This subpart establishes emission standards and compliance schedules for the control of volatile organic compounds (VOC) and sulfur dioxide (SO₂) emissions from affected facilities that commence construction, modification or reconstruction after August 23, 2011.

RESPONSE: The Northwest Gas Processing (NWGP) – Highway 30 Treating Facility is subject to this rule and thus the purposes outlined here are applicable.

§60.5365 Am I subject to this subpart?

You are subject to the applicable provisions of this subpart if you are the owner or operator of one or more of the onshore affected facilities listed in paragraphs (a) through (g) of this section for which you commence construction, modification or reconstruction after August 23, 2011.

(a) Each gas well affected facility, which is a single natural gas well.

RESPONSE: The NWGP - Highway 30 Treating Facility is not a gas well affected facility, which is a single natural gas well.

(b) Each centrifugal compressor affected facility, which is a single centrifugal compressor using wet seals that is located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment. A centrifugal compressor located at a well site, or an adjacent well site and servicing more than one well site, is not an affected facility under this subpart.

RESPONSE: The NWGP - Highway 30 Treating Facility has internal reciprocating compressor/engine(s). The facility does not have centrifugal compressor affected facility, which is a single centrifugal compressor using wet seals that is located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment.

(c) Each reciprocating compressor affected facility, which is a single reciprocating compressor located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment. A reciprocating compressor located at a well site, or an adjacent well site and servicing more than one well site, is not an affected facility under this subpart.

RESPONSE: The NWGP - Highway 30 Treating Facility is not a single reciprocating compressor servicing a single well site. The reciprocating compressors associated with this project service multiple well sites and will comply with applicable portions of this rule.

(d)(1) For the oil production segment (between the wellhead and the point of custody transfer to an oil pipeline), each pneumatic controller affected facility, which is a single continuous bleed natural gas-driven pneumatic controller operating at a natural gas bleed rate greater than 6 scfh.

RESPONSE: The NWGP - Highway 30 Treating Facility is not part of the oil production segment.

(2) For the natural gas production segment (between the wellhead and the point of custody transfer to the natural gas transmission and storage segment and not including natural gas processing plants), each pneumatic controller affected facility, which is a single continuous bleed natural gas-driven pneumatic controller operating at a natural gas bleed rate greater than 6 scfh.

RESPONSE: The NWGP - Highway 30 Treating Facility is a natural gas processing plant under 40 CFR Part 60, Subpart OOOO. See below.

(3) For natural gas processing plants, each pneumatic controller affected facility, which is a single continuous bleed natural gas-driven pneumatic controller.

RESPONSE: The NWGP - Highway 30 Treating Facility is a natural gas processing plant subject to this rule provision. Thus, any single continuous bleed natural gas driven pneumatic controllers are affected facilities under this subpart.

(e) Each storage vessel affected facility, which is a single storage vessel located in the oil and natural gas production segment, natural gas processing segment or natural gas transmission and storage segment, and has the potential for VOC emissions equal to or greater than 6 tpy as determined according to this section by October 15, 2013 for Group 1 storage vessels and by April 15, 2014, or 30 days after startup (whichever is later) for Group 2 storage vessels. A storage vessel affected facility that subsequently has its potential for VOC emissions decrease to less than 6 tpy shall remain an affected facility under this subpart. The potential for VOC emissions must be calculated using a generally accepted model or calculation methodology, based on the maximum average daily throughput determined for a 30-day period of production prior to the applicable emission determination deadline specified in this section. The determination may take into account requirements under a legally and practically enforceable limit in an operating permit or other requirement established under a Federal, State, local or tribal authority. Any vapor from the storage vessel that is recovered and routed to a process through a VRU designed and operated as specified in this section is not required to be included in the determination of VOC potential to emit for purposes of determining affected facility status, provided you comply with the requirements in paragraphs (e)(1) through (4) of this section.

RESPONSE: Emissions from storage vessel affected facilities are less than 6 tpy thus satisfying any potentially applicable requirements of NSPS OOOO.

(1) You meet the cover requirements specified in §60.5411(b).

RESPONSE: Emissions from storage vessel affected facilities are less than 6 tpy and will satisfy (including VRU standards) any potentially applicable requirements of NSPS OOOO.

(2) You meet the closed vent system requirements specified in §60.5411(c).

RESPONSE: Emissions from storage vessel affected facilities are less than 6 tpy and will satisfy (including VRU standards) any potentially applicable requirements of NSPS OOOO.

(3) You maintain records that document compliance with paragraphs (e)(1) and (2) of this section.

RESPONSE: Emissions from storage vessel affected facilities are less than 6 tpy and will satisfy (including VRU standards) any potentially applicable requirements of NSPS OOOO.

(4) In the event of removal of apparatus that recovers and routes vapor to a process, or operation that is inconsistent with the conditions specified in paragraphs (e)(1) and (2) of this section, you must determine the storage vessel's potential for VOC emissions according to this section within 30 days of such removal or operation.

RESPONSE: *Emissions from storage vessel affected facilities are less than 6 tpy and will satisfy (including VRU standards) any potentially applicable requirements of NSPS OOOO.*

(f) The group of all equipment, except compressors, within a process unit is an affected facility.

RESPONSE: *The NWGP - Highway 30 Treating Facility has a group of all equipment, and hence affected facility, under this rule.*

(1) Addition or replacement of equipment for the purpose of process improvement that is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart.

RESPONSE: *The NWGP - Highway 30 Treating Facility has an affected facility under this portion of the rule.*

(2) Equipment associated with a compressor station, dehydration unit, sweetening unit, underground storage vessel, field gas gathering system, or liquefied natural gas unit is covered by §§60.5400, 60.5401, 60.5402, 60.5421, and 60.5422 of this subpart if it is located at an onshore natural gas processing plant. Equipment not located at the onshore natural gas processing plant site is exempt from the provisions of §§60.5400, 60.5401, 60.5402, 60.5421, and 60.5422 of this subpart.

RESPONSE: *The NWGP - Highway 30 Treating Facility has an affected facility under this portion of the rule.*

(3) The equipment within a process unit of an affected facility located at onshore natural gas processing plants and described in paragraph (f) of this section are exempt from this subpart if they are subject to and controlled according to subparts VVa, GGG or GGGa of this part.

RESPONSE: *The NWGP - Highway 30 Treating Facility has a group of all equipment subject to this rule not regulated or controlled according to Subparts VVa, GGG or GGGa. The facility is not subject to those rules.*

(g) Sweetening units located at onshore natural gas processing plants that process natural gas produced from either onshore or offshore wells.

RESPONSE: *The NWGP - Highway 30 Treating Facility does not have a sweetening unit affected facility.*

(1) Each sweetening unit that processes natural gas is an affected facility; and

RESPONSE: The NWGP - Highway 30 Treating Facility does not have a sweetening unit affected facility.

(2) Each sweetening unit that processes natural gas followed by a sulfur recovery unit is an affected facility.

RESPONSE: The NWGP - Highway 30 Treating Facility does not have a sweetening unit affected facility.

(3) Facilities that have a design capacity less than 2 long tons per day (LT/D) of hydrogen sulfide (H₂S) in the acid gas (expressed as sulfur) are required to comply with recordkeeping and reporting requirements specified in §60.5423(c) but are not required to comply with §§60.5405 through 60.5407 and §§60.5410(g) and 60.5415(g) of this subpart.

RESPONSE: The NWGP - Highway 30 Treating Facility does not have a sweetening unit affected facility.

(4) Sweetening facilities producing acid gas that is completely reinjected into oil-or-gas-bearing geologic strata or that is otherwise not released to the atmosphere are not subject to §§60.5405 through 60.5407, 60.5410(g), 60.5415(g), and 60.5423 of this subpart.

RESPONSE: The NWGP - Highway 30 Treating Facility does not have a sweetening unit affected facility.

(h) The following provisions apply to gas well facilities that are hydraulically refractured.

RESPONSE: The NWGP - Highway 30 Treating Facility is not a gas well affected facility under this subpart.

(1) A gas well facility that conducts a well completion operation following hydraulic refracturing is not an affected facility, provided that the requirements of §60.5375 are met. For purposes of this provision, the dates specified in §60.5375(a) do not apply, and such facilities, as of October 15, 2012, must meet the requirements of §60.5375(a)(1) through (4).

RESPONSE: The NWGP - Highway 30 Treating Facility is not a gas well affected facility under this subpart.

(2) A well completion operation following hydraulic refracturing at a gas well facility not conducted pursuant to §60.5375 is a modification to the gas well affected facility.

RESPONSE: The NWGP - Highway 30 Treating Facility is not a gas well affected facility under this subpart.

(3) Refracturing of a gas well facility does not affect the modification status of other equipment, process units, storage vessels, compressors, or pneumatic controllers located at the well site.

RESPONSE: The NWGP - Highway 30 Treating Facility is not a gas well affected facility under this subpart.

(4) A gas well facility initially constructed after August 23, 2011, is considered an affected facility regardless of this provision.

RESPONSE: The NWGP - Highway 30 Treating Facility is not a gas well affected facility under this subpart.

§60.5370 When must I comply with this subpart?

(a) You must be in compliance with the standards of this subpart no later than October 15, 2012 or upon startup, whichever is later.

RESPONSE: The affected facilities under this subpart will comply upon startup. The affected facilities covered under this rule are pneumatic controllers and group of all equipment (Leak Detection and Repair.)

(b) The provisions for exemption from compliance during periods of startup, shutdown and malfunctions provided for in 40 CFR 60.8(c) do not apply to this subpart.

RESPONSE: NWGP - Highway 30 Treating Facility understands this provision

(c) You are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not otherwise required by law to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a). Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart.

RESPONSE: NWGP - Highway 30 Treating Facility understands this provision and the proposed facility is not required to obtain a Part 70, Title V Permit.

§60.5375 What standards apply to gas well affected facilities?

If you are the owner or operator of a gas well affected facility, you must comply with paragraphs (a) through (f) of this section.

RESPONSE: The NWGP - Highway 30 Treating Facility is not a gas well affected facility under this subpart.

§60.5380 What standards apply to centrifugal compressor affected facilities?

You must comply with the standards in paragraphs (a) through (d) of this section for each centrifugal compressor affected facility.

RESPONSE: *The NWGP - Highway 30 Treating Facility is not a centrifugal compressor affected facility under this subpart.*

§60.5385 What standards apply to reciprocating compressor affected facilities?

You must comply with the standards in paragraphs (a) through (d) of this section for each reciprocating compressor affected facility.

RESPONSE: *The NWGP - Highway 30 Treating Facility is not a single reciprocating compressor servicing a single well site. The reciprocating compressors associated with this project service multiple well sites and will comply with applicable portions of this standard.*

§60.5390 What standards apply to pneumatic controller affected facilities?

For each pneumatic controller affected facility you must comply with the VOC standards, based on natural gas as a surrogate for VOC, in either paragraph (b)(1) or (c)(1) of this section, as applicable. Pneumatic controllers meeting the conditions in paragraph (a) of this section are exempt from this requirement.

(a) The requirements of paragraph (b)(1) or (c)(1) of this section are not required if you determine that the use of a pneumatic controller affected facility with a bleed rate greater than the applicable standard is required based on functional needs, including but not limited to RESPONSE time, safety and positive actuation. However, you must tag such pneumatic controller with the month and year of installation, reconstruction or modification, and identification information that allows traceability to the records for that pneumatic controller, as required in §60.5420(c)(4)(ii).

RESPONSE: *The NWGP - Highway 30 Treating Facility does not currently have pneumatic controllers in the plant inventory falling under this requirement. Should pneumatic device affected facilities be installed, the devices will be tagged in accordance with the rule requirement.*

(b)(1) Each pneumatic controller affected facility at a natural gas processing plant must have a bleed rate of zero.

RESPONSE: *The NWGP - Highway 30 Treating Facility does not currently have pneumatic controllers in the plant inventory falling under this requirement. Should pneumatic device affected facilities be installed, the devices will be tagged in accordance with the rule requirement. Pneumatic controllers are intermittent devices not covered by this rule. Should pneumatics be installed which are single continuous bleed natural gas driven pneumatics, the bleed rate will be zero as required by this rule.*

(2) Each pneumatic controller affected facility at a natural gas processing plant must be tagged with the month and year of installation, reconstruction or modification, and identification

information that allows traceability to the records for that pneumatic controller as required in §60.5420(c)(4)(iv).

RESPONSE: The NWGP - Highway 30 Treating Facility does not currently have pneumatic controllers in the plant inventory falling under this requirement. Should pneumatic device affected facilities be installed, the devices will be tagged in accordance with the rule requirement. Pneumatic controllers are intermittent devices not covered by this rule. Should pneumatics be installed which are single continuous bleed natural gas driven pneumatics, the bleed rate will be tagged (and records maintained) as required by this rule.

(c)(1) Each pneumatic controller affected facility constructed, modified or reconstructed on or after October 15, 2013, at a location between the wellhead and a natural gas processing plant or the point of custody transfer to an oil pipeline must have a bleed rate less than or equal to 6 standard cubic feet per hour.

(2) Each pneumatic controller affected facility at a location between the wellhead and a natural gas processing plant or the point of custody transfer to an oil pipeline must be tagged with the month and year of installation, reconstruction or modification, and identification information that allows traceability to the records for that controller as required in §60.5420(c)(4)(iii).

RESPONSE: The NWGP - Highway 30 Treating Facility does not currently have pneumatic controllers in the plant inventory falling under this requirement. The facility is a natural gas processing plant under this rule.

(d) You must demonstrate initial compliance with standards that apply to pneumatic controller affected facilities as required by §60.5410.

RESPONSE: The NWGP - Highway 30 Treating Facility does not currently have pneumatic controllers in the plant inventory falling under this requirement. Should pneumatic controller affected facilities be installed, the facility will comply with this standard.

(e) You must demonstrate continuous compliance with standards that apply to pneumatic controller affected facilities as required by §60.5415.

RESPONSE: The NWGP - Highway 30 Treating Facility does not currently have pneumatic controllers in the plant inventory falling under this requirement. Should pneumatic controller affected facilities be installed, the facility will comply with this standard.

(f) You must perform the required notification, recordkeeping, and reporting as required by §60.5420, except that you are not required to submit the notifications specified in §60.5420(a).

RESPONSE: The NWGP - Highway 30 Treating Facility does not currently have pneumatic controllers in the plant inventory falling under this requirement. Should pneumatic controller affected facilities be installed, the facility will comply with this standard.

§60.5395 What standards apply to storage vessel affected facilities?

Except as provided in paragraph (h) of this section, you must comply with the standards in this section for each storage vessel affected facility.

RESPONSE: *The NWGP - Highway 30 Treating Facility does not have storage vessel affected facilities under this subpart.*

§60.5400 What equipment leak standards apply to affected facilities at an onshore natural gas processing plant?

This section applies to the group of all equipment, except compressors, within a process unit.

RESPONSE: *The NWGP - Highway 30 Treating Facility has a group of all equipment subject to this rule requirement.*

(a) You must comply with the requirements of §§60.482-1a(a), (b), and (d), 60.482-2a, and 60.482-4a through 60.482-11a, except as provided in §60.5401.

RESPONSE: *The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.*

40 CFR Part 60, Subpart KKK [By reference from above]**§60.482-2 Standards: Pumps in light liquid service.**

(a)(1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in §60.485(b), except as provided in §60.482-1(c) and (f) and paragraphs (d), (e), and (f) of this section. A pump that begins operation in light liquid service after the initial startup date for the process unit must be monitored for the first time within 30 days after the end of its startup period, except for a pump that replaces a leaking pump and except as provided in §60.482-1(c) and (f) and paragraphs (d), (e), and (f) of this section.

RESPONSE: *The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.*

§60.482-4 Standards: Pressure relief devices in gas/vapor service.

(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in §60.485(c).

RESPONSE: *The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.*

(b)(1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in §60.482-9.

RESPONSE: *The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.*

(2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in §60.485(c).

RESPONSE: *The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.*

(c) Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in §60.482-10 is exempted from the requirements of paragraphs (a) and (b) of this section.

RESPONSE: *The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.*

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

RESPONSE: *The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.*

(2) After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in §60.482-9.

RESPONSE: *The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.*

§60.482-5 Standards: Sampling connection systems.

(a) Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in §60.482-1(c) and paragraph (c) of this section.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(b) Each closed-purge, closed-loop, or closed-vent system as required in paragraph (a) of this section shall comply with the requirements specified in paragraphs (b)(1) through (4) of this section.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(1) Gases displaced during filling of the sample container are not required to be collected or captured.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(2) Containers that are part of a closed-purge system must be covered or closed when not being filled or emptied.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(3) Gases remaining in the tubing or piping between the closed-purge system valve(s) and sample container valve(s) after the valves are closed and the sample container is disconnected are not required to be collected or captured.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(4) Each closed-purge, closed-loop, or closed-vent system shall be designed and operated to meet requirements in either paragraph (b)(4)(i), (ii), (iii), or (iv) of this section.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(i) Return the purged process fluid directly to the process line.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(ii) Collect and recycle the purged process fluid to a process.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(iii) Capture and transport all the purged process fluid to a control device that complies with the requirements of §60.482-10.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(iv) Collect, store, and transport the purged process fluid to any of the following systems or facilities.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

§60.482-6 Standards: Open-ended valves or lines.

(a)(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in §60.482-1(c) and paragraphs (d) and (e) of this section.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

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

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

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

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

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

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

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

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

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

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

§60.482-7 Standards: Valves in gas/vapor service and in light liquid service.

(a)(1) Each valve shall be monitored monthly to detect leaks by the methods specified in §60.485(b) and shall comply with paragraphs (b) through (e) of this section, except as provided in paragraphs (f), (g), and (h) of this section, §60.482-1(c) and (f), and §§60.483-1 and 60.483-2.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup. It is not expected these facilities will be necessary to the proposed operations.

(2) A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for the process unit must be monitored according to paragraphs (a)(2)(i) or (ii), except for a valve that replaces a leaking valve and except as provided in paragraphs (f), (g), and (h) of this section, §60.482-1(c), and §§60.483-1 and 60.483-2.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(i) Monitor the valve as in paragraph (a)(1) of this section. The valve must be monitored for the first time within 30 days after the end of its startup period to ensure proper installation.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(ii) If the valves on the process unit are monitored in accordance with §60.483-1 or §60.483-2, count the new valve as leaking when calculating the percentage of valves leaking as described in §60.483-2(b)(5). If less than 2.0 percent of the valves are leaking for that process unit, the valve must be monitored for the first time during the next scheduled monitoring event for existing valves in the process unit or within 90 days, whichever comes first.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(c)(1)(i) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(ii) As an alternative to monitoring all of the valves in the first month of a quarter, an owner or operator may elect to subdivide the process unit into 2 or 3 subgroups of valves and monitor each subgroup in a different month during the quarter, provided each subgroup is monitored every 3 months. The owner or operator must keep records of the valves assigned to each subgroup.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup. It is not expected these facilities will be necessary to the proposed operations.

(d)(1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in §60.482-9.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

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

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

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

- (1) Tightening of bonnet bolts;
- (2) Replacement of bonnet bolts;
- (3) Tightening of packing gland nuts;
- (4) Injection of lubricant into lubricated packing.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(f) Any valve that is designated, as described in §60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraph (a) if the valve:

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

- (1) Has no external actuating mechanism in contact with the process fluid,

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(2) Is operated with emissions less than 500 ppm above background as determined by the method specified in §60.485(c), and

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

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

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(g) Any valve that is designated, as described in §60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of paragraph (a) if:

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a), and

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup. It is not expected these facilities will be necessary to the proposed operations.

(h) Any valve that is designated, as described in §60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of paragraph (a) if:

RESPONSE: *The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.*

(1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.

RESPONSE: *The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.*

(2) The process unit within which the valve is located either becomes an affected facility through §60.14 or §60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor, and

RESPONSE: *The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.*

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

RESPONSE: *The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.*

§60.482-8 Standards: Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors.

(a) If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures:

RESPONSE: *The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.*

(1) The owner or operator shall monitor the equipment within 5 days by the method specified in §60.485(b) and shall comply with the requirements of paragraphs (b) through (d) of this section.

RESPONSE: *The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.*

(2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482-9.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

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

(d) First attempts at repair include, but are not limited to, the best practices described under §§60.482-2(c)(2) and 60.482-7(e).

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

§60.482-9 Standards: Delay of repair.

(a) Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. Monitoring to verify repair must occur within 15 days after startup of the process unit.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(b) Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(c) Delay of repair for valves will be allowed if:

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

(2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with §60.482-10.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(d) Delay of repair for pumps will be allowed if:

(1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and

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

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

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

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(f) When delay of repair is allowed for a leaking pump or valve that remains in service, the pump or valve may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive monthly monitoring instrument readings are below the leak definition.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

§60.482-10 Standards: Closed vent systems and control devices.

(a) Owners or operators of closed vent systems and control devices used to comply with provisions of this subpart shall comply with the provisions of this section.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon

initial startup. It is not expected these facilities will be necessary to the proposed operations. No closed vent system will be employed by the facility.

[RETURN TO NSPS, Subpart OOOO]

(b) You may elect to comply with the requirements of §§60.483-1a and 60.483-2a, as an alternative.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup. It is not expected these facilities will be necessary to the proposed operations. AM will evaluate and may choose to comply with these requirements as an alternative. Notification of such will be provided to IDEQ in advance of pursuing the alternative method.

(c) You may apply to the Administrator for permission to use an alternative means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to that achieved by the controls required in this subpart according to the requirements of §60.5402 of this subpart.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup. It is not expected these facilities will be necessary to the proposed operations. AM will evaluate and may choose to comply with these requirements as an alternative. Notification of such will be provided to IDEQ in advance of pursuing the alternative method.

(d) You must comply with the provisions of §60.485a of this part except as provided in paragraph (f) of this section.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(e) You must comply with the provisions of §§60.486a and 60.487a of this part except as provided in §§60.5401, 60.5421, and 60.5422 of this part.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(f) You must use the following provision instead of §60.485a(d)(1): Each piece of equipment is presumed to be in VOC service or in wet gas service unless an owner or operator demonstrates that the piece of equipment is not in VOC service or in wet gas service. For a piece of equipment to be considered not in VOC service, it must be determined that the VOC content can be reasonably expected never to exceed 10.0 percent by weight. For a piece of equipment to be considered in wet gas service, it must be determined that it contains or contacts the field gas before the extraction step in the process. For purposes of determining the percent VOC content

of the process fluid that is contained in or contacts a piece of equipment, procedures that conform to the methods described in ASTM E169-93, E168-92, or E260-96 (incorporated by reference as specified in §60.17) must be used.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

§60.5401 What are the exceptions to the equipment leak standards for affected facilities at onshore natural gas processing plants?

(a) You may comply with the following exceptions to the provisions of §60.5400(a) and (b).

(b)(1) Each pressure relief device in gas/vapor service may be monitored quarterly and within 5 days after each pressure release to detect leaks by the methods specified in §60.485a(b) except as provided in §60.5400(c) and in paragraph (b)(4) of this section, and §60.482-4a(a) through (c) of subpart VVa.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(2) If an instrument reading of 500 ppm or greater is measured, a leak is detected.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(3)(i) When a leak is detected, it must be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in §60.482-9a.

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

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

(4)(i) Any pressure relief device that is located in a nonfractionating plant that is monitored only by non-plant personnel may be monitored after a pressure release the next time the monitoring personnel are on-site, instead of within 5 days as specified in paragraph (b)(1) of this section and §60.482-4a(b)(1) of subpart VVa.

(ii) No pressure relief device described in paragraph (b)(4)(i) of this section must be allowed to operate for more than 30 days after a pressure release without monitoring.

RESPONSE: *The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.*

(c) Sampling connection systems are exempt from the requirements of §60.482-5a.

RESPONSE: *The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.*

(d) Pumps in light liquid service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service that are located at a nonfractionating plant that does not have the design capacity to process 283,200 standard cubic meters per day (scmd) (10 million standard cubic feet per day) or more of field gas are exempt from the routine monitoring requirements of §§60.482-2a(a)(1) and 60.482-7a(a), and paragraph (b)(1) of this section.

RESPONSE: *The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup. It is not expected these facilities will be necessary to the proposed operations.*

(e) Pumps in light liquid service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service within a process unit that is located in the Alaskan North Slope are exempt from the routine monitoring requirements of §§60.482-2a(a)(1), 60.482-7a(a), and paragraph (b)(1) of this section.

RESPONSE: *The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.*

(f) An owner or operator may use the following provisions instead of §60.485a(e):

(1) Equipment is in heavy liquid service if the weight percent evaporated is 10 percent or less at 150 °C (302 °F) as determined by ASTM Method D86-96 (incorporated by reference as specified in §60.17).

(2) Equipment is in light liquid service if the weight percent evaporated is greater than 10 percent at 150 °C (302 °F) as determined by ASTM Method D86-96 (incorporated by reference as specified in §60.17).

RESPONSE: *The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.*

(g) An owner or operator may use the following provisions instead of §60.485a(b)(2): A calibration drift assessment shall be performed, at a minimum, at the end of each monitoring day.

Check the instrument using the same calibration gas(es) that were used to calibrate the instrument before use. Follow the procedures specified in Method 21 of appendix A-7 of this part, Section 10.1, except do not adjust the meter readout to correspond to the calibration gas value. Record the instrument reading for each scale used as specified in §60.486a(e)(8). Divide these readings by the initial calibration values for each scale and multiply by 100 to express the calibration drift as a percentage. If any calibration drift assessment shows a negative drift of more than 10 percent from the initial calibration value, then all equipment monitored since the last calibration with instrument readings below the appropriate leak definition and above the leak definition multiplied by (100 minus the percent of negative drift/divided by 100) must be re-monitored. If any calibration drift assessment shows a positive drift of more than 10 percent from the initial calibration value, then, at the owner/operator's discretion, all equipment since the last calibration with instrument readings above the appropriate leak definition and below the leak definition multiplied by (100 plus the percent of positive drift/divided by 100) may be re-monitored.

§60.5402 What are the alternative emission limitations for equipment leaks from onshore natural gas processing plants?

(a) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in VOC emissions at least equivalent to the reduction in VOC emissions achieved under any design, equipment, work practice or operational standard, the Administrator will publish, in the FEDERAL REGISTER, a notice permitting the use of that alternative means for the purpose of compliance with that standard. The notice may condition permission on requirements related to the operation and maintenance of the alternative means.

(b) Any notice under paragraph (a) of this section must be published only after notice and an opportunity for a public hearing.

(c) The Administrator will consider applications under this section from either owners or operators of affected facilities, or manufacturers of control equipment.

(d) The Administrator will treat applications under this section according to the following criteria, except in cases where the Administrator concludes that other criteria are appropriate:

(1) The applicant must collect, verify and submit test data, covering a period of at least 12 months, necessary to support the finding in paragraph (a) of this section.

(2) If the applicant is an owner or operator of an affected facility, the applicant must commit in writing to operate and maintain the alternative means so as to achieve a reduction in VOC emissions at least equivalent to the reduction in VOC emissions achieved under the design, equipment, work practice or operational standard.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup. Should alternative monitoring requirements be utilized, this activity will be done in accordance with these provisions.

§60.5405 What standards apply to sweetening units at onshore natural gas processing plants?

(a) During the initial performance test required by §60.8(b), you must achieve at a minimum, an SO₂ emission reduction efficiency (Z_i) to be determined from Table 1 of this subpart based on the sulfur feed rate (X) and the sulfur content of the acid gas (Y) of the affected facility.

(b) After demonstrating compliance with the provisions of paragraph (a) of this section, you must achieve at a minimum, an SO₂ emission reduction efficiency (Z_c) to be determined from Table 2 of this subpart based on the sulfur feed rate (X) and the sulfur content of the acid gas (Y) of the affected facility.

RESPONSE: The NWGP - Highway 30 Treating Facility does not have sweetening units subject to this portion of the rule.

§60.5406 What test methods and procedures must I use for my sweetening units affected facilities at onshore natural gas processing plants?

RESPONSE: The NWGP - Highway 30 Treating Facility does not have sweetening units subject to this portion of the rule.

§60.5407 What are the requirements for monitoring of emissions and operations from my sweetening unit affected facilities at onshore natural gas processing plants?

RESPONSE: The NWGP - Highway 30 Treating Facility does not have sweetening units subject to this portion of the rule.

§60.5410 How do I demonstrate initial compliance with the standards for my gas well affected facility, my centrifugal compressor affected facility, my reciprocating compressor affected facility, my pneumatic controller affected facility, my storage vessel affected facility, and my equipment leaks and sweetening unit affected facilities at onshore natural gas processing plants?

RESPONSE: The NWGP - Highway 30 Treating Facility has affected facilities under this rule in two categories. Pneumatic controller affected facilities and equipment leaks. Those provisions of the rule are contained below.

(d) To achieve initial compliance with emission standards for your pneumatic controller affected facility you must comply with the requirements specified in paragraphs (d)(1) through (6) of this section, as applicable.

(1) You must demonstrate initial compliance by maintaining records as specified in §60.5420(c)(4)(ii) of your determination that the use of a pneumatic controller affected facility with a bleed rate greater than 6 standard cubic feet of gas per hour is required as specified in §60.5390(a).

- (2) You own or operate a pneumatic controller affected facility located at a natural gas processing plant and your pneumatic controller is driven by a gas other than natural gas and therefore emits zero natural gas.
- (3) You own or operate a pneumatic controller affected facility located between the wellhead and a natural gas processing plant and the manufacturer's design specifications indicate that the controller emits less than or equal to 6 standard cubic feet of gas per hour.
- (4) You must tag each new pneumatic controller affected facility according to the requirements of §60.5390(b)(2) or (c)(2).
- (5) You must include the information in paragraph (d)(1) of this section and a listing of the pneumatic controller affected facilities specified in paragraphs (d)(2) and (3) of this section in the initial annual report submitted for your pneumatic controller affected facilities constructed, modified or reconstructed during the period covered by the annual report according to the requirements of §60.5420(b).
- (6) You must maintain the records as specified in §60.5420(c)(4) for each pneumatic controller affected facility.

RESPONSE: NWGP - Highway 30 Treating Facility will comply with these provisions upon startup. Single continuous bleed natural gas driven pneumatic controllers, at the point of installation, modification, or reconstruction, will be zero-bleed devices. These devices will be tagged with the month and year of installation. Records will be maintained of the manufacturer's specifications demonstrating compliance with these provisions. The annual report will be completed detailed those affected facilities in accordance with the provisions of this subpart.

- (f) For affected facilities at onshore natural gas processing plants, initial compliance with the VOC requirements is demonstrated if you are in compliance with the requirements of §60.5400.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

§60.5411 What additional requirements must I meet to determine initial compliance for my covers and closed vent systems routing materials from storage vessels and centrifugal compressor wet seal degassing systems?

You must meet the applicable requirements of this section for each cover and closed vent system used to comply with the emission standards for your storage vessel or centrifugal compressor affected facility.

RESPONSE: Emissions from storage vessel affected facilities are less than 6 tpy and will satisfy (including VRU standards) any potentially applicable requirements of NSPS OOOO.

RESPONSE: *The NWGP - Highway 30 Treating Facility is not a single reciprocating compressor servicing a single well site. The reciprocating compressors associated with this project service multiple well sites and will comply with applicable portions of this standard.*

60.5412 What additional requirements must I meet for determining initial compliance with control devices used to comply with the emission standards for my storage vessel or centrifugal compressor affected facility?

You must meet the applicable requirements of this section for each control device used to comply with the emission standards for your storage vessel or centrifugal compressor affected facility.

RESPONSE: *Emissions from storage vessel affected facilities are less than 6 tpy and will satisfy (including VRU standards) any potentially applicable requirements of NSPS OOOO.*

RESPONSE: *The NWGP - Highway 30 Treating Facility is not a single reciprocating compressor servicing a single well site. The reciprocating compressors associated with this project service multiple well sites and will comply with applicable portions of this standard.*

§60.5413 What are the performance testing procedures for control devices used to demonstrate compliance at my storage vessel or centrifugal compressor affected facility?

This section applies to the performance testing of control devices used to demonstrate compliance with the emissions standards for your centrifugal compressor affected facility. You must demonstrate that a control device achieves the performance requirements of §60.5412(a) using the performance test methods and procedures specified in this section. For condensers, you may use a design analysis as specified in paragraph (c) of this section in lieu of complying with paragraph (b) of this section. In addition, this section contains the requirements for enclosed combustion device performance tests conducted by the manufacturer applicable to both storage vessel and centrifugal compressor affected facilities.

RESPONSE: *Emissions from storage vessel affected facilities are less than 6 tpy and will satisfy (including VRU standards) any potentially applicable requirements of NSPS OOOO.*

RESPONSE: *The NWGP - Highway 30 Treating Facility is not a single reciprocating compressor servicing a single well site. The reciprocating compressors associated with this project service multiple well sites and will comply with applicable portions of this standard.*

§60.5415 How do I demonstrate continuous compliance with the standards for my gas well affected facility, my centrifugal compressor affected facility, my stationary reciprocating compressor affected facility, my pneumatic controller affected facility, my storage vessel affected facility, and my affected facilities at onshore natural gas processing plants?

RESPONSE: The NWGP - Highway 30 Treating Facility has affected facilities under this rule. Pneumatic controller affected facilities, reciprocating compressors, and equipment leaks. Those provisions of the rule are contained below.

(d) For each pneumatic controller affected facility, you must demonstrate continuous compliance according to paragraphs (d)(1) through (3) of this section.

(1) You must continuously operate the pneumatic controllers as required in §60.5390(a), (b), or (c).

(2) You must submit the annual report as required in §60.5420(b).

(3) You must maintain records as required in §60.5420(c)(4).

RESPONSE: NWGP - Highway 30 Treating Facility will comply with these provisions upon startup. Single continuous bleed natural gas driven pneumatic controllers, at the point of installation, modification, or reconstruction, will be zero-bleed devices. These devices will be tagged with the month and year of installation. Records will be maintained of the manufacturer's specifications demonstrating compliance with these provisions. The annual report will be completed detailed those affected facilities in accordance with the provisions of this subpart.

f) For affected facilities at onshore natural gas processing plants, continuous compliance with VOC requirements is demonstrated if you are in compliance with the requirements of §60.5400.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

§60.5416 What are the initial and continuous cover and closed vent system inspection and monitoring requirements for my storage vessel and centrifugal compressor affected facility?

For each closed vent system or cover at your storage vessel or centrifugal compressor affected facility, you must comply with the applicable requirements of paragraphs (a) through (c) of this section.

RESPONSE: Emissions from storage vessel affected facilities are less than 6 tpy and will satisfy (including VRU standards) any potentially applicable requirements of NSPS OOOO.

RESPONSE: The NWGP - Highway 30 Treating Facility is not a single reciprocating compressor servicing a single well site. The reciprocating compressors associated with this project service multiple well sites and will comply with applicable portions of this standard.

§60.5417 What are the continuous control device monitoring requirements for my storage vessel or centrifugal compressor affected facility?

You must meet the applicable requirements of this section to demonstrate continuous compliance for each control device used to meet emission standards for your storage vessel or centrifugal compressor affected facility.

RESPONSE: *Emissions from storage vessel affected facilities are less than 6 tpy and will satisfy (including VRU standards) any potentially applicable requirements of NSPS OOOO.*

RESPONSE: *The NWGP - Highway 30 Treating Facility is not a single reciprocating compressor servicing a single well site. The reciprocating compressors associated with this project service multiple well sites and will comply with applicable portions of this standard.*

§60.5420 What are my notification, reporting, and recordkeeping requirements?

(a) You must submit the notifications according to paragraphs (a)(1) and (2) of this section if you own or operate one or more of the affected facilities specified in §60.5365 that was constructed, modified, or reconstructed during the reporting period.

(1) If you own or operate a gas well, pneumatic controller, centrifugal compressor, reciprocating compressor or storage vessel affected facility you are not required to submit the notifications required in §60.7(a)(1), (3), and (4).

RESPONSE: *NWGP - Highway 30 Treating Facility will comply with these provisions upon startup. Notifications will be completed as required. No notifications are required for pneumatic controllers or reciprocating compressors, however an initial notification will occur for the group of all equipment in accordance with §60.7(a)(1), (3), and (4) [LDAR].*

(b) Reporting requirements. You must submit annual reports containing the information specified in paragraphs (b)(1) through (6) of this section to the Administrator and performance test reports as specified in paragraph (b)(7) or (8) of this section. The initial annual report is due no later than 90 days after the end of the initial compliance period as determined according to §60.5410. Subsequent annual reports are due no later than same date each year as the initial annual report. If you own or operate more than one affected facility, you may submit one report for multiple affected facilities provided the report contains all of the information required as specified in paragraphs (b)(1) through (6) of this section. Annual reports may coincide with title V reports as long as all the required elements of the annual report are included. You may arrange with the Administrator a common schedule on which reports required by this part may be submitted as long as the schedule does not extend the reporting period.

RESPONSE: *NWGP - Highway 30 Treating Facility will comply with these provisions upon startup.*

(5) For each pneumatic controller affected facility, the information specified in paragraphs (b)(5)(i) through (iii) of this section.

(i) An identification of each pneumatic controller constructed, modified or reconstructed during the reporting period, including the identification information specified in §60.5390(b)(2) or (c)(2).

(ii) If applicable, documentation that the use of pneumatic controller affected facilities with a natural gas bleed rate greater than 6 standard cubic feet per hour are required and the reasons why.

(iii) Records of deviations specified in paragraph (c)(4)(v) of this section that occurred during the reporting period.

RESPONSE: NWGP - Highway 30 Treating Facility will comply with these provisions upon startup.

(c) *Recordkeeping requirements.* You must maintain the records identified as specified in §60.7(f) and in paragraphs (c)(1) through (13) of this section. All records required by this subpart must be maintained either onsite or at the nearest local field office for at least 5 years.

RESPONSE: NWGP - Highway 30 Treating Facility will comply with these provisions upon startup.

(4) For each pneumatic controller affected facility, you must maintain the records identified in paragraphs (c)(4)(i) through (v) of this section.

(i) Records of the date, location and manufacturer specifications for each pneumatic controller constructed, modified or reconstructed.

(ii) Records of the demonstration that the use of pneumatic controller affected facilities with a natural gas bleed rate greater than the applicable standard are required and the reasons why.

(iii) If the pneumatic controller is not located at a natural gas processing plant, records of the manufacturer's specifications indicating that the controller is designed such that natural gas bleed rate is less than or equal to 6 standard cubic feet per hour.

(iv) If the pneumatic controller is located at a natural gas processing plant, records of the documentation that the natural gas bleed rate is zero.

(v) Records of deviations in cases where the pneumatic controller was not operated in compliance with the requirements specified in §60.5390

RESPONSE: NWGP - Highway 30 Treating Facility will comply with these provisions upon startup.

§60.5421 What are my additional recordkeeping requirements for my affected facility subject to VOC requirements for onshore natural gas processing plants?

(a) You must comply with the requirements of paragraph (b) of this section in addition to the requirements of §60.486a.

(b) The following recordkeeping requirements apply to pressure relief devices subject to the requirements of §60.5401(b)(1) of this subpart.

(1) When each leak is detected as specified in §60.5401(b)(2), a weatherproof and readily visible identification, marked with the equipment identification number, must be attached to the leaking equipment. The identification on the pressure relief device may be removed after it has been repaired.

(2) When each leak is detected as specified in §60.5401(b)(2), the following information must be recorded in a log and shall be kept for 2 years in a readily accessible location:

(i) The instrument and operator identification numbers and the equipment identification number.

(ii) The date the leak was detected and the dates of each attempt to repair the leak.

(iii) Repair methods applied in each attempt to repair the leak.

(iv) “Above 500 ppm” if the maximum instrument reading measured by the methods specified in paragraph (a) of this section after each repair attempt is 500 ppm or greater.

(v) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(vi) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.

(vii) The expected date of successful repair of the leak if a leak is not repaired within 15 days.

(viii) Dates of process unit shutdowns that occur while the equipment is unrepaired.

(ix) The date of successful repair of the leak.

(x) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §60.482-4a(a). The designation of equipment subject to the provisions of §60.482-4a(a) must be signed by the owner or operator.

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

§60.5422 What are my additional reporting requirements for my affected facility subject to VOC requirements for onshore natural gas processing plants?

(a) You must comply with the requirements of paragraphs (b) and (c) of this section in addition to the requirements of §60.487a(a), (b), (c)(2)(i) through (iv), and (c)(2)(vii) through (viii).

(b) An owner or operator must include the following information in the initial semiannual report in addition to the information required in §60.487a(b)(1) through (4): Number of pressure relief devices subject to the requirements of §60.5401(b) except for those pressure relief devices designated for no detectable emissions under the provisions of §60.482-4a(a) and those pressure relief devices complying with §60.482-4a(c).

(c) An owner or operator must include the following information in all semiannual reports in addition to the information required in §60.487a(c)(2)(i) through (vi):

(1) Number of pressure relief devices for which leaks were detected as required in §60.5401(b)(2); and

(2) Number of pressure relief devices for which leaks were not repaired as required in §60.5401(b)(3).

RESPONSE: The NWGP - Highway 30 Treating Facility will comply with these provisions by implementing a 3rd Party LDAR Tagging, Maintenance, and Monitoring Program upon initial startup.

§60.5423 What additional recordkeeping and reporting requirements apply to my sweetening unit affected facilities at onshore natural gas processing plants?

(a) You must retain records of the calculations and measurements required in §60.5405(a) and (b) and §60.5407(a) through (g) for at least 2 years following the date of the measurements. This requirement is included under §60.7(d) of the General Provisions.

RESPONSE: The NWGP - Highway 30 Treating Facility does not have sweetening units subject to this portion of the rule.

§60.5425 What part of the General Provisions apply to me?

Table 3 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

RESPONSE: These provisions as indicated below apply to both pneumatic controller affected facilities and LDAR. Should additional affected facilities under NSPS OOOO be installed, modified, or reconstructed, the requirements of this subchapter will be followed.

§60.5430 What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act, in subpart A or subpart VVa of part 60; and the following terms shall have the specific meanings given them.

RESPONSE: *All definitions apply to this project. NWGP - Highway 30 Treating Facility understands these definitions.*

Table 3 to Subpart OOOO of Part 60—Applicability of General Provisions to Subpart OOOO

As stated in §60.5425, you must comply with the following applicable General Provisions:

General provisions citation	Subject of citation	Applies to subpart?	Explanation
§60.1	General applicability of the General Provisions	Yes.	
§60.2	Definitions	Yes	Additional terms defined in §60.5430.
§60.3	Units and abbreviations	Yes.	
§60.4	Address	Yes.	
§60.5	Determination of construction or modification	Yes.	
§60.6	Review of plans	Yes.	
§60.7	Notification and record keeping	Yes	Except that §60.7 only applies as specified in §60.5420(a). Applies to LDAR affected equipment
§60.8	Performance tests	Yes	Performance testing is required for control devices used on storage vessels and centrifugal compressors. None in project
§60.9	Availability of information	Yes.	
§60.10	State authority	Yes.	
§60.11	Compliance with standards and maintenance requirements	No	Requirements are specified in subpart OOOO.
§60.12	Circumvention	Yes.	
§60.13	Monitoring requirements	Yes	Continuous monitors are required for storage vessels. None is project.
§60.14	Modification	Yes.	
§60.15	Reconstruction	Yes.	
§60.16	Priority list	Yes.	

§60.17	Incorporations by reference	Yes.	
§60.18	General control device requirements	Yes	Except that §60.18 does not apply to flares.
§60.19	General notification and reporting requirement	Yes.	

NSPS Applicability (40 CFR 60)

- 40 CFR Part 60, Subpart JJJJ

NESHAP Applicability (40 CFR 61)

- Not Applicable

NESHAP Applicability (40 CFR 63)

- 40 CFR Par 63, Subpart ZZZZ

Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

§63.6580 What is the purpose of subpart ZZZZ?

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

[73 FR 3603, Jan. 18, 2008]

§63.6585 Am I subject to this subpart?

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

RESPONSE: NWGP - Highway 30 Treating Facility will own and operate a stationary RICE at an area source of HAP emissions.

(a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

(b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

(c) An area source of HAP emissions is a source that is not a major source.

(d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 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.

(e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.

(f) The emergency stationary RICE listed in paragraphs (f)(1) through (3) of this section are not subject to this subpart. The stationary RICE must meet the definition of an emergency stationary RICE in §63.6675, which includes operating according to the provisions specified in §63.6640(f).

(1) Existing residential emergency stationary RICE located at an area source of HAP emissions that do not operate or are not 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) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).

(2) Existing commercial emergency stationary RICE located at an area source of HAP emissions that do not operate or are not 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) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).

(3) Existing institutional emergency stationary RICE located at an area source of HAP emissions that do not operate or are not 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) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).

[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008; 78 FR 6700, Jan. 30, 2013]

§63.6590 What parts of my plant does this subpart cover?

This subpart applies to each affected source.

(a) *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) *Existing stationary RICE.*

(i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

RESPONSE: The NWGP - Highway 30 Treating Facility is considered an area source of HAP emissions.

(ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

RESPONSE: The engines located at the facility are considered ZZZZ applicable engines with a potential manufacture date of 04/05/1990.

(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(2) *New stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

RESPONSE: The engines located at the facility are considered ZZZZ applicable engines with a potential manufacture date of 04/05/1990.

(3) *Reconstructed stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(b) *Stationary RICE subject to limited requirements.* (1) An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f).

(i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is not 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).

(ii) The stationary RICE is a new or reconstructed limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(2) A new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of §63.6645(f) and the requirements of §§63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.

(3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:

(i) Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(ii) Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is not 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).

(iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(v) Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

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

(1) A new or reconstructed stationary RICE located at an area source;

(2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;

(4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

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

(7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010; 75 FR 51588, Aug. 20, 2010; 78 FR 6700, Jan. 30, 2013]

§63.6595 When do I have to comply with this subpart?

(a) *Affected sources.* (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations, operating limitations and other requirements no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI 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 stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than May 3, 2013. If you have

an existing stationary SI 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 stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than October 19, 2013.

RESPONSE: NWGP - Highway 30 Treating Facility will install the ZZZZ applicable engines at the Facility after October 19, 2013.

(2) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.

(3) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(4) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(5) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(6) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(7) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

RESPONSE: NWGP - Highway 30 Treating Facility will comply with this standard upon startup of the affected source.

(b) *Area sources that become major sources.* If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.

(1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.

(2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.

(c) If you own or operate an affected source, you must meet the applicable notification requirements in §63.6645 and in 40 CFR part 63, subpart A.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 78 FR 6701, Jan. 30, 2013]

Emission and Operating Limitations

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

RESPONSE: This Section is not applicable - the NWGP - Highway 30 Treating Facility is considered an area source of HAP emissions.

§63.6601 What emission limitations must I meet if I own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions?

RESPONSE: This Section is not applicable - the NWGP - Highway 30 Treating Facility is considered an area source of HAP emissions.

§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?

RESPONSE: This Section is not applicable - the NWGP - Highway 30 Treating Facility is considered an area source of HAP emissions.

§63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

RESPONSE: The NWGP - Highway 30 Treating Facility is considered an area source of HAP emissions and will comply with all emission limitations, operating limitations and other

requirements. The facility is also considered to be in a non-remote area therefore the > 500 hp engines will be equipped with NSCR (catalyst systems) required for rich burn engines.

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.

RESPONSE: NWGP - Highway 30 Treating Facility will perform the required test in accordance with 63.6620 procedures and Table 4 by demonstrating compliance with the CO concentration limits.

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart that apply to you.

RESPONSE: In accordance with Table 2d the facility is considered to be in a non-remote area therefore the > 500 hp engines will be equipped with NSCR (catalyst systems) required for rich burn engines. Table 2B is not applicable – non CI RICE and non-major source facility.

(b) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meets either paragraph (b)(1) or (2) of this section, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. Existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meet either paragraph (b)(1) or (2) of this section must meet the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart.

RESPONSE: NA – This engine is not considered a “CI RICE”

(1) The area source is located in an area of Alaska that is not accessible by the Federal Aid Highway System (FAHS).

(2) The stationary RICE is located at an area source that meets paragraphs (b)(2)(i), (ii), and (iii) of this section.

(i) The only connection to the FAHS is through the Alaska Marine Highway System (AMHS), or the stationary RICE operation is within an isolated grid in Alaska that is not connected to the statewide electrical grid referred to as the Alaska Railbelt Grid.

(ii) At least 10 percent of the power generated by the stationary RICE on an annual basis is used for residential purposes.

(iii) The generating capacity of the area source is less than 12 megawatts, or the stationary RICE is used exclusively for backup power for renewable energy.

(c) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located on an offshore vessel that is an area source of HAP and is a nonroad vehicle that is an Outer Continental Shelf (OCS) source as defined in 40 CFR 55.2, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. You must meet all of the following management practices:

RESPONSE: NA – This engine is not considered a “CI RICE”

(1) Change oil every 1,000 hours of operation or annually, whichever comes first. Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement.

(2) Inspect and clean air filters every 750 hours of operation or annually, whichever comes first, and replace as necessary.

(3) Inspect fuel filters and belts, if installed, every 750 hours of operation or annually, whichever comes first, and replace as necessary.

(4) Inspect all flexible hoses every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.

(d) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and that is subject to an enforceable state or local standard that requires the engine to be replaced no later than June 1, 2018, you may until January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018, choose to comply with the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart instead of the applicable emission limitations in Table 2d, operating limitations in Table 2b, and crankcase ventilation system requirements in §63.6625(g). You must comply with the emission limitations in Table 2d and operating limitations in Table 2b that apply for non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018. You must also comply with the crankcase ventilation system requirements in §63.6625(g) by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018.

RESPONSE: NA – This engine is not considered a “CI RICE”

(e) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 3 (Tier 2 for engines above 560 kilowatt (kW)) emission standards in Table 1 of 40 CFR 89.112, you may comply with the requirements under this part by meeting the requirements for Tier 3 engines (Tier 2 for engines above 560 kW) in 40 CFR part 60 subpart IIII instead of the emission limitations and other requirements that would otherwise apply under this part for existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions.

RESPONSE: NA – This engine is not considered a “CI RICE”

(f) An existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP must meet the definition of remote stationary RICE in §63.6675 on the initial compliance date for the engine, October 19, 2013, in order to be considered a remote stationary RICE under this subpart. Owners and operators of existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that meet the definition of remote stationary RICE in §63.6675 of this subpart as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation.

RESPONSE: The Highway 30 Treating Facility is considered non-remote.

[75 FR 9675, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011; 78 FR 6701, Jan. 30, 2013]

§63.6604 What fuel requirements must I meet if I own or operate a stationary CI RICE?

RESPONSE: NA – This engine is not considered a “CI RICE”

(a) If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel.

(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.

(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.

(d) Existing CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, at area sources in areas of Alaska that meet either §63.6603(b)(1) or §63.6603(b)(2), or are on offshore vessels that meet §63.6603(c) are exempt from the requirements of this section.

[78 FR 6702, Jan. 30, 2013]

General Compliance Requirements

§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.

RESPONSE: NWGP - Highway 30 Treating Facility will comply with all general requirements that are applicable to the identified sources.

(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.

[75 FR 9675, Mar. 3, 2010, as amended at 78 FR 6702, Jan. 30, 2013]

Testing and Initial Compliance Requirements

§63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

RESPONSE: This Section is not applicable - the NWGP - Highway 30 Treating Facility is considered an area source of HAP emissions.

If you own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions you are subject to the requirements of this section.

§63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?

RESPONSE: This Section is not applicable - the NWGP - Highway 30 Treating Facility is considered an area source of HAP emissions.

If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must conduct an initial performance test within 240 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions specified in Table 4 to this subpart, as appropriate.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 51589, Aug. 20, 2010]

§63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate 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 or an existing stationary RICE located at an area source of HAP emissions?

If you own or operate 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 or an existing stationary RICE located at an area source of HAP emissions you are subject to the requirements of this section.

RESPONSE: NWGP - Highway 30 Treating Facility will comply with the applicable performance testing requirements found in section 6612 (initial performance test), 6615 (subsequent performance test), and 6620 (testing procedures).

(a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).

(b) An owner or operator is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (b)(1) through (4) of this section.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

[75 FR 9676, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010]

§63.6615 When must I conduct subsequent performance tests?

RESPONSE: NWGP - Highway 30 Treating Facility will comply with the applicable performance testing requirements found in section 6612 (initial performance test), 6615 (subsequent performance test), and 6620 (testing procedures).

If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in Table 3 of this subpart.

RESPONSE: NWGP - Highway 30 Treating Facility will comply with Table 3 of this subpart as appropriate.

§63.6620 What performance tests and other procedures must I use?

RESPONSE: NWGP - Highway 30 Treating Facility will comply with the applicable performance testing requirements found in section 6612 (initial performance test), 6615 (subsequent performance test), and 6620 (testing procedures).

(a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.

(b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load for the stationary RICE listed in paragraphs (b)(1) through (4) of this section.

(1) Non-emergency 4SRB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(2) New non-emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP located at a major source of HAP emissions.

(3) New non-emergency 2SLB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(4) New non-emergency CI stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(c) [Reserved]

(d) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour, unless otherwise specified in this subpart.

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

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 1})$$

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Where:

C_i = concentration of carbon monoxide (CO), total hydrocarbons (THC), or formaldehyde at the control device inlet,

C_o = concentration of CO, THC, or formaldehyde at the control device outlet, and

R = percent reduction of CO, THC, or formaldehyde emissions.

(2) You must normalize the CO, THC, or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO₂). If pollutant concentrations are to be corrected to 15 percent oxygen and CO₂ concentration is measured in lieu of oxygen concentration measurement, a CO₂ correction factor is needed. Calculate the CO₂ correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.

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

$$F_o = \frac{0.209 F_d}{F_c} \quad (\text{Eq. 2})$$

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Where:

F_o = Fuel factor based on the ratio of oxygen volume to the ultimate CO₂ volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm³/J (dscf/106 Btu).

F_c = Ratio of the volume of CO₂ produced to the gross calorific value of the fuel from Method 19, dsm³/J (dscf/106 Btu)

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

$$X_{CO_2} = \frac{5.9}{F_o} \quad (\text{Eq. 3})$$

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Where:

X_{CO_2} = CO₂ correction factor, percent.

5.9 = 20.9 percent O₂—15 percent O₂, the defined O₂ correction value, percent.

(iii) Calculate the CO, THC, and formaldehyde gas concentrations adjusted to 15 percent O₂ using CO₂ as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \quad (\text{Eq. 4})$$

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Where:

C_{adj} = Calculated concentration of CO, THC, or formaldehyde adjusted to 15 percent O₂.

C_d = Measured concentration of CO, THC, or formaldehyde, uncorrected.

X_{CO_2} = CO₂ correction factor, percent.

%CO₂ = Measured CO₂ concentration measured, dry basis, percent.

(f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or NSCR, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.

(g) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.

- (1) Identification of the specific parameters you propose to use as operating limitations;
 - (2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions;
 - (3) 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;
 - (4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and
 - (5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.
- (h) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.
- (1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally (*e.g.*, operator adjustment, automatic controller adjustment, etc.) or unintentionally (*e.g.*, wear and tear, error, etc.) on a routine basis or over time;
 - (2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;
 - (3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;
 - (4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;
 - (5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;
 - (6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and
 - (7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.

(i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9676, Mar. 3, 2010; 78 FR 6702, Jan. 30, 2013]

§63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

(a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either O₂ or CO₂ according to the requirements in paragraphs (a)(1) through (4) of this section. If you are meeting a requirement to reduce CO emissions, the CEMS must be installed at both the inlet and outlet of the control device. If you are meeting a requirement to limit the concentration of CO, the CEMS must be installed at the outlet of the control device.

RESPONSE: NA - CEMS will not be used on the engines.

(1) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR part 60, appendix B.

(2) You must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in §63.8 and according to the applicable performance specifications of 40 CFR part 60, appendix B as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.

(3) As specified in §63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. You must have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.

(4) The CEMS data must be reduced as specified in §63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO₂ concentration.

(b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (6) of this section. For an affected source that is complying with the emission limitations and operating limitations on March 9, 2011, the requirements in paragraph (b) of this section are applicable September 6, 2011.

RESPONSE: NA – A CPMS Program will not be used on the engines.

(1) You must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraphs (b)(1)(i) through (v) of this section and in §63.8(d). As specified in §63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs (b)(1) through (5) of this section in your site-specific monitoring plan.

(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;

(ii) Sampling interface (*e.g.*, thermocouple) location such that the monitoring system will provide representative measurements;

(iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;

(iv) Ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1)(ii) and (c)(3); and

(v) Ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i).

(2) You must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.

(3) The CPMS must collect data at least once every 15 minutes (see also §63.6635).

(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.

(5) You must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.

(6) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.

RESPONSE: NA – Landfill or digester gas is not used as fuel.

(d) If you are operating a new or reconstructed emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter prior to the startup of the engine.

RESPONSE: NA – This facility is located at an area source of HAP emissions.

(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:

RESPONSE: NWGP - Highway 30 Treating Facility will operate the engines according to proper manufacturer's recommendations.

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

(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;

(4) An existing non-emergency, non-black start stationary CI RICE with a site rating less than or equal to 300 HP located at an area source of HAP emissions;

(5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions;

(6) An existing non-emergency, non-black start stationary RICE located at an area source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis.

(7) An existing non-emergency, non-black start 4SLB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(8) An existing non-emergency, non-black start 4SRB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(9) An existing, non-emergency, non-black start 4SLB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year; and

(10) An existing, non-emergency, non-black start 4SRB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year.

(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.

RESPONSE: NWGP - Highway 30 Treating Facility will not operate emergency RICE.

(g) If you own or operate an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska that meet either §63.6603(b)(1) or §63.6603(b)(2) do not have to meet the requirements of this paragraph (g). Existing CI engines located on offshore vessels that meet §63.6603(c) do not have to meet the requirements of this paragraph (g).

RESPONSE: NA – The engines are not CI Engines.

(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or

(2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates and metals.

(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.

(j) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 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 Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid 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.

RESPONSE: NWGP - Highway 30 Treating Facility will operate the engines according to proper manufacturer's recommendations and maintenance procedures.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011; 78 FR 6703, Jan. 30, 2013]

§63.6630 How do I demonstrate initial compliance with the emission limitations, operating limitations, and other requirements?

- (a) You must demonstrate initial compliance with each emission limitation, operating limitation, and other requirement that applies to you according to Table 5 of this subpart.
- (b) During the initial performance test, you must establish each operating limitation in Tables 1b and 2b of this subpart that applies to you.
- (c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6645.

RESPONSE: NWGP - Highway 30 Treating Facility will comply with all initial compliance demonstrations applicable to this source. Proper notifications will be made at least 60 days prior to performance test. Compliance demonstrations will be submitted within 60 days following the completion of the relevant compliance demonstrations.

- (d) Non-emergency 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more can demonstrate initial compliance with the formaldehyde emission limit by testing for THC instead of formaldehyde. The testing must be conducted according to the requirements in Table 4 of this subpart. The average reduction of emissions of THC determined from the performance test must be equal to or greater than 30 percent.
- (e) The initial compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:
 - (1) The compliance demonstration must consist of at least three test runs.
 - (2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.
 - (3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.
 - (4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.
 - (5) You must measure O₂ using one of the O₂ measurement methods specified in Table 4 of this subpart. Measurements to determine O₂ concentration must be made at the same time as the measurements for CO or THC concentration.

(6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O₂ emissions simultaneously at the inlet and outlet of the control device.

[69 FR 33506, June 15, 2004, as amended at 78 FR 6704, Jan. 30, 2013]

Continuous Compliance Requirements

RESPONSE: NWGP - Highway 30 Treating Facility will demonstrate continuous compliance through the annual compliance test according to section 6640(c) of this part.

§63.6635 How do I monitor and collect data to demonstrate continuous compliance?

(a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.

(b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

RESPONSE: NWGP - Highway 30 Treating Facility will continuously monitor engine operations as necessary to comply with this subpart.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

[69 FR 33506, June 15, 2004, as amended at 76 FR 12867, Mar. 9, 2011]

§63.6640 How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?

RESPONSE: NWGP - Highway 30 Treating Facility will perform and complete all required tests, reports, and notifications in accordance with this rule. Specifically, the annual compliance test will be completed in accordance with 6640(c) of this subpart.

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

(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart

that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

(c) The annual compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

(1) The compliance demonstration must consist of at least one test run.

(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.

(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.

(5) You must measure O₂ using one of the O₂ measurement methods specified in Table 4 of this subpart. Measurements to determine O₂ concentration must be made at the same time as the measurements for CO or THC concentration.

(6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O₂ emissions simultaneously at the inlet and outlet of the control device.

(7) If the results of the annual compliance demonstration show that the emissions exceed the levels specified in Table 6 of this subpart, the stationary RICE must be shut down as soon as safely possible, and appropriate corrective action must be taken (e.g., repairs, catalyst cleaning, catalyst replacement). The stationary RICE must be retested within 7 days of being restarted and the emissions must meet the levels specified in Table 6 of this subpart. If the retest shows that the emissions continue to exceed the specified levels, the stationary RICE must again be shut down as soon as safely possible, and the stationary RICE may not operate, except for purposes of startup and testing, until the owner/operator demonstrates through testing that the emissions do not exceed the levels specified in Table 6 of this subpart.

(d) For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations. Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR 94.11(a).

(e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.

(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.

(4) Emergency stationary RICE located at area 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. Except as provided in paragraphs (f)(4)(i) and (ii) 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 an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand RESPONSE to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.

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

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

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

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

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

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

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010; 78 FR 6704, Jan. 30, 2013]

Notifications, Reports, and Records

§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;

RESPONSE: NWGP - Highway 30 Treating Facility will comply with the notification requirements found in 63.7 (b) and (c) section 1 and 2.

(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.

(b) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart, you must submit an Initial Notification not later than December 13, 2004.

(c) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions on or after August 16, 2004, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(d) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart and you are required to submit an initial notification, you must submit an Initial Notification not later than July 16, 2008.

(e) If you start up your new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions on or after March 18, 2008 and you are required to submit an initial notification, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(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).

(g) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1).

(h) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).

RESPONSE: NWGP - Highway 30 Treating Facility will submit all required pretest notifications and compliance demonstrations according to these sections and within the appropriate timeframes

(1) For each initial compliance demonstration required in Table 5 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.

(2) For each initial compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to §63.10(d)(2).

(i) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and subject to an enforceable state or local standard requiring engine replacement and you intend to meet management practices rather than emission limits, as specified in §63.6603(d), you must submit a notification by March 3, 2013, stating that you intend to use the provision in §63.6603(d) and identifying the state or local regulation that the engine is subject to.

[73 FR 3606, Jan. 18, 2008, as amended at 75 FR 9677, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010; 78 FR 6705, Jan. 30, 2013]

§63.6650 What reports must I submit and when?

(a) You must submit each report in Table 7 of this subpart that applies to you.

RESPONSE: NWGP - Highway 30 Treating Facility will submit all required compliance reports according to these sections and within the appropriate timeframes.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.

(1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.6595.

(2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.6595.

(3) For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.

(6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on December 31.

(7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in §63.6595.

(8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.

(9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.

(c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

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

(4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction.

(5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.

(6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.

(d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.

- (1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.
- (2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
- (e) For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in paragraphs (c)(1) through (4) and (e)(1) through (12) of this section.
 - (1) The date and time that each malfunction started and stopped.
 - (2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.
 - (3) The date, time, and duration that each CMS was out-of-control, including the information in §63.8(c)(8).
 - (4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.
 - (5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.
 - (6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.
 - (7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.
 - (8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.
 - (9) A brief description of the stationary RICE.
 - (10) A brief description of the CMS.
 - (11) The date of the latest CMS certification or audit.
 - (12) A description of any changes in CMS, processes, or controls since the last reporting period.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

(g) If you are operating as a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to Table 7 of this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (b)(1) through (b)(5) of this section. You must report the data specified in (g)(1) through (g)(3) of this section.

(1) Fuel flow rate of each fuel and the heating values that were used in your calculations. You must also demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis.

(2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.

(3) Any problems or errors suspected with the meters.

(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.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9677, Mar. 3, 2010; 78 FR 6705, Jan. 30, 2013]

§63.6655 What records must I keep?

RESPONSE: NWGP - Highway 30 Treating Facility will maintain records in accordance with (a)(1)-(5).

(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) and (c) 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.

RESPONSE: NA – No CEMS or CPMS programs are required.

- (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.
- (c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must keep the records of your daily fuel usage monitors.
- (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.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 78 FR 6706, Jan. 30, 2013]

§63.6660 In what form and how long must I keep my records?

RESPONSE: NWGP - Highway 30 Treating Facility will maintain the appropriate records specified in (a)-(c) of this section.

(a) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010]

Other Requirements and Information

§63.6665 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the

following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in Table 8: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE.

[75 FR 9678, Mar. 3, 2010]

Table 1a to Subpart ZZZZ of Part 63—Emission Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

Table 1b to Subpart ZZZZ of Part 63—Operating Limitations for Existing, New, and Reconstructed SI 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

Table 2a to Subpart ZZZZ of Part 63—Emission Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP and New and Reconstructed 4SLB Stationary RICE \geq 250 HP Located at a Major Source of HAP Emissions

Table 2b to Subpart ZZZZ of Part 63—Operating Limitations for New and Reconstructed 2SLB and CI Stationary RICE >500 HP Located at a Major Source of HAP Emissions, New and Reconstructed 4SLB Stationary RICE \geq 250 HP Located at a Major Source of HAP Emissions, Existing CI Stationary RICE >500 HP

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 \leq 500 HP Located at a Major Source of HAP Emissions

RESPONSE: This Section is not applicable - the NWGP - Highway 30 Treating Facility is considered an area source of HAP emissions.

JJJJ Compliance Demonstration – NSPS 40 CFR 60 Subpart JJJJ**§60.4230 Am I subject to this subpart?**

RESPONSE: The NWGP – Highway 30 Treating facility will comply with these standards based on the specific engine applicability.

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (6) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufacturers of stationary SI ICE with a maximum engine power less than or equal to 19 kilowatt (KW) (25 horsepower (HP)) that are manufactured on or after July 1, 2008.

(2) Manufacturers of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are gasoline fueled or that are rich burn engines fueled by liquefied petroleum gas (LPG), where the date of manufacture is:

(i) On or after July 1, 2008; or

(ii) On or after January 1, 2009, for emergency engines.

(3) Manufacturers of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are not gasoline fueled and are not rich burn engines fueled by LPG, where the manufacturer participates in the voluntary manufacturer certification program described in this subpart and where the date of manufacture is:

(i) 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);

(ii) 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;

(iii) On or after July 1, 2008, for engines with a maximum engine power less than 500 HP; or

(iv) On or after January 1, 2009, for emergency engines.

RESPONSE: This facility is not an engine manufacturer.

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

(i) 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);

(ii) 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;

(iii) on or after July 1, 2008, for engines with a maximum engine power less than 500 HP; or

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

(5) Owners and operators of stationary SI ICE that are modified or reconstructed after June 12, 2006, and any person that modifies or reconstructs any stationary SI ICE after June 12, 2006.

(6) The provisions of §60.4236 of this subpart are applicable to all owners and operators of stationary SI ICE that commence construction after June 12, 2006.

(b) The provisions of this subpart are not applicable to stationary SI ICE being tested at an engine test cell/stand.

(c) 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.

(d) For the purposes of this subpart, stationary SI ICE using alcohol-based fuels are considered gasoline engines.

(e) 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.

(f) 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.

[73 FR 3591, Jan. 18, 2008, as amended at 76 FR 37972, June 28, 2011]

§60.4231 What emission standards must I meet if I am a manufacturer of stationary SI internal combustion engines or equipment containing such engines?

RESPONSE: This facility is not an engine manufacturer.

(a) Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) manufactured on or after July 1, 2008 to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 1054, as follows:

If engine displacement is * * *	and manufacturing dates are * * *	the engine must meet emission standards and related requirements for nonhandheld engines under * * *
(1) below 225 cc	July 1, 2008 to December 31, 2011	40 CFR part 90.
(2) below 225 cc	January 1, 2012 or later	40 CFR part 1054.
(3) at or above 225 cc	July 1, 2008 to December 31, 2010	40 CFR part 90.
(4) at or above 225 cc	January 1, 2011 or later	40 CFR part 1054.

(b) Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) (except emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) that use gasoline and that are manufactured on or after the applicable date in §60.4230(a)(2), or manufactured on or after the applicable date in §60.4230(a)(4) for emergency stationary ICE with a maximum engine power greater than or equal to 130 HP, to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 1048. Stationary SI internal combustion engine manufacturers must certify their emergency stationary SI ICE with a maximum engine power greater than 25 HP and less than 130 HP that use gasoline and that are manufactured on or after the applicable date in §60.4230(a)(4) to the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, and other requirements for new nonroad SI engines in 40 CFR part 90. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cubic centimeters (cc) that use gasoline to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 1054, as appropriate.

(c) Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) (except emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) that are rich burn engines that use LPG and that are manufactured on or after the applicable date in §60.4230(a)(2), or manufactured on or after the applicable date in §60.4230(a)(4) for emergency stationary ICE with a maximum engine power greater than or equal to 130 HP, to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 1048. Stationary SI internal combustion engine manufacturers must certify their emergency stationary SI ICE greater than 25 HP and less than 130 HP that are rich burn engines that use LPG and that are manufactured on or after the applicable date in §60.4230(a)(4) to the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, and other requirements for new nonroad SI engines in 40 CFR part 90. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc that are rich burn engines that use LPG to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 1054, as appropriate.

(d) Stationary SI internal combustion engine manufacturers who choose to certify their 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 and emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) under the voluntary manufacturer certification program described in this subpart must certify those engines to the certification emission standards for new nonroad SI engines in 40 CFR part 1048. Stationary SI internal combustion engine manufacturers who choose to certify their emergency stationary SI ICE greater than 25 HP and less than 130 HP (except gasoline and rich burn engines that use LPG), must certify those engines to the Phase I emission standards in 40 CFR 90.103, applicable to class II engines, for new nonroad SI engines in 40 CFR part 90. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc (except gasoline and rich burn engines that use LPG) to the certification emission standards for new nonroad SI engines in 40 CFR part 90 or 1054, as appropriate. For 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 and emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) manufactured prior to January 1, 2011, manufacturers may choose to certify these engines 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.

(e) Stationary SI internal combustion engine manufacturers who choose to certify their 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) under the voluntary manufacturer certification program described in this subpart must certify those engines to the emission standards in Table 1 to this subpart. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) that are lean burn engines that use LPG to the certification emission standards for new nonroad SI engines in 40 CFR part 1048. For stationary SI ICE with a maximum engine power greater than or equal to 100 HP (75 KW) and less than 500 HP (373 KW) manufactured prior to January 1, 2011, and for stationary SI ICE with a maximum engine power greater than or equal to 500 HP (373 KW) manufactured prior to July 1, 2010, manufacturers may choose to certify these engines to the certification emission standards for new nonroad SI engines in 40 CFR part 1048 applicable to engines that are not severe duty engines.

(f) Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, to the extent they apply to equipment manufacturers.

(g) Notwithstanding the requirements in paragraphs (a) through (c) of this section, stationary SI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (e) of this section that are applicable to the model year, maximum engine power and displacement of the reconstructed stationary SI ICE.

§60.4232 How long must my engines meet the emission standards if I am a manufacturer of stationary SI internal combustion engines?

Engines manufactured by stationary SI internal combustion engine manufacturers must meet the emission standards as required in §60.4231 during the certified emissions life of the engines.

RESPONSE: This facility is not an engine manufacturer.

§60.4233 What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?

RESPONSE: This facility will comply with the emissions standards according to Table 1 of this Subpart as applicable to the specific engine requirements.

(a) 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.

(b) 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.

(c) 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.

(d) 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.

(e) 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.

(f) 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.

(1) 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 emission standards in §60.4231(a) for their stationary SI ICE. Engines with a date of manufacture prior to July 1, 2008 must comply with the emission standards specified in §60.4231(a) applicable to engines manufactured on July 1, 2008.

(2) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are gasoline engines and are modified or reconstructed after June 12, 2006, must comply with the emission standards in §60.4231(b) for their stationary SI ICE. Engines with a date of manufacture

prior to July 1, 2008 (or January 1, 2009 for emergency engines) must comply with the emission standards specified in §60.4231(b) applicable to engines manufactured on July 1, 2008 (or January 1, 2009 for emergency engines).

(3) 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 §60.4231(c). Engines with a date of manufacture prior to July 1, 2008 (or January 1, 2009 for emergency engines) must comply with the emission standards specified in §60.4231(c) applicable to engines manufactured on July 1, 2008 (or January 1, 2009 for emergency engines).

(4) 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 (O₂), a CO emission standard 540 ppmvd at 15 percent O₂ (675 ppmvd at 15 percent O₂ for non-emergency engines less than 100 HP), and a VOC emission standard of 86 ppmvd at 15 percent O₂, where the date of manufacture of the engine is:

(i) Prior to July 1, 2007, for non-emergency engines with a maximum engine power greater than or equal to 500 HP (except lean burn natural gas engines and LPG engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);

(ii) Prior to July 1, 2008, for non-emergency engines with a maximum engine power less than 500 HP;

(iii) Prior to January 1, 2009, for emergency engines;

(iv) Prior to January 1, 2008, for non-emergency lean burn natural gas engines and LPG engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP.

(5) 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. Engines with maximum engine power less than 500 HP and a date of manufacture prior to July 1, 2008 must comply with the emission standards specified in paragraph (e) of this section for stationary landfill/digester gas ICE with a maximum engine power less than 500 HP manufactured on July 1, 2008. Engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines greater than or equal to 500 HP and less than 1,350 HP) and a date of manufacture prior to July 1, 2007 must comply with the emission standards specified in paragraph (e) of this section for stationary landfill/digester gas ICE with a maximum engine power greater than or equal to 500 HP (except lean burn engines greater than or equal to 500 HP and less than 1,350 HP) manufactured on July 1, 2007. Lean burn engines greater than or equal to 500 HP and less than 1,350 HP with a date of manufacture prior to January 1, 2008 must comply with the emission standards specified in paragraph (e) of this section for stationary landfill/digester gas ICE that are lean burn engines greater than or equal to 500 HP and less than 1,350 HP and manufactured on January 1, 2008.

(g) 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 aftertreatment 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 aftertreatment controls. The petition must request the most stringent standards reasonably applicable to the engine using the fuel.

(h) 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.

[73 FR 3591, Jan. 18, 2008, as amended at 76 FR 37973, June 28, 2011]

§60.4234 How long must I meet the emission standards if I am an owner or operator of a stationary SI internal combustion engine?

RESPONSE: This facility will comply with these standards as applicable to the specific engine's requirements.

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.

§60.4235 What fuel requirements must I meet if I am an owner or operator of a stationary SI gasoline fired internal combustion engine subject to this subpart?

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.

RESPONSE: This facility will comply with these standards as applicable to the specific engine's requirements.

§60.4236 What is the deadline for importing or installing stationary SI ICE produced in previous model years?

RESPONSE: This facility will comply with these standards as applicable to the specific engine's requirements.

(a) 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.

(b) 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.

(c) 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.

(d) 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.

(e) 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.

§60.4237 What are the monitoring requirements if I am an owner or operator of an emergency stationary SI internal combustion engine?

RESPONSE: This facility is not an emergency engine.

(a) 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.

(b) 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.

(c) 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.

§60.4238 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines \leq 19 KW (25 HP) or a manufacturer of equipment containing such engines?

Stationary SI internal combustion engine manufacturers who are subject to the emission standards specified in §60.4231(a) must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, or 40 CFR part 1054, subpart C, as applicable, and must test their engines as specified in those parts. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, subpart C, to the extent they apply to equipment manufacturers.

[73 FR 59176, Oct. 8, 2008]

§60.4239 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines >19 KW (25 HP) that use gasoline or a manufacturer of equipment containing such engines?

Stationary SI internal combustion engine manufacturers who are subject to the emission standards specified in §60.4231(b) must certify their stationary SI ICE using the certification procedures required in

40 CFR part 1048, subpart C, and must test their engines as specified in that part. Stationary SI internal combustion engine manufacturers who certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 40 CFR part 1054, and manufacturers of stationary SI emergency engines that are greater than 25 HP and less than 130 HP who meet the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, or 40 CFR part 1054, subpart C, as applicable, and must test their engines as specified in those parts. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, subpart C, to the extent they apply to equipment manufacturers.

[73 FR 59176, Oct. 8, 2008]

§60.4240 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines >19 KW (25 HP) that are rich burn engines that use LPG or a manufacturer of equipment containing such engines?

Stationary SI internal combustion engine manufacturers who are subject to the emission standards specified in §60.4231(c) must certify their stationary SI ICE using the certification procedures required in 40 CFR part 1048, subpart C, and must test their engines as specified in that part. Stationary SI internal combustion engine manufacturers who certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 40 CFR part 1054, and manufacturers of stationary SI emergency engines that are greater than 25 HP and less than 130 HP who meet the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, or 40 CFR part 1054, subpart C, as applicable, and must test their engines as specified in those parts. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, subpart C, to the extent they apply to equipment manufacturers.

[73 FR 59176, Oct. 8, 2008]

§60.4241 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines participating in the voluntary certification program or a manufacturer of equipment containing such engines?

(a) Manufacturers of stationary SI internal combustion engines with a maximum engine power greater than 19 KW (25 HP) that do not use gasoline and are not rich burn engines that use LPG can choose to certify their engines to the emission standards in §60.4231(d) or (e), as applicable, under the voluntary certification program described in this subpart. Manufacturers who certify their engines under the voluntary certification program must meet the requirements as specified in paragraphs (b) through (g) of this section. In addition, manufacturers of stationary SI internal combustion engines who choose to certify their engines under the voluntary certification program, must also meet the requirements as specified in §60.4247.

(b) Manufacturers of engines other than those certified to standards in 40 CFR part 90 or 40 CFR part 1054 must certify their stationary SI ICE using the certification procedures required in 40 CFR part 1048,

subpart C, and must follow the same test procedures that apply to large SI nonroad engines under 40 CFR part 1048, but must use the D-1 cycle of International Organization of Standardization 8178-4: 1996(E) (incorporated by reference, see 40 CFR 60.17) or the test cycle requirements specified in Table 3 to 40 CFR 1048.505, except that Table 3 of 40 CFR 1048.505 applies to high load engines only. Stationary SI internal combustion engine manufacturers who certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 40 CFR part 1054, and manufacturers of emergency engines that are greater than 25 HP and less than 130 HP who meet the Phase 1 standards in 40 CFR 90.103, applicable to class II engines, must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, or 40 CFR part 1054, subpart C, as applicable, and must test their engines as specified in those parts. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, subpart C, to the extent they apply to equipment manufacturers.

(c) Certification of stationary SI ICE to the emission standards specified in §60.4231(d) or (e), as applicable, is voluntary, but manufacturers who decide to certify are subject to all of the requirements indicated in this subpart with regard to the engines included in their certification. Manufacturers must clearly label their stationary SI engines as certified or non-certified engines.

(d) Manufacturers of natural gas fired stationary SI ICE who conduct voluntary certification of stationary SI ICE to the emission standards specified in §60.4231(d) or (e), as applicable, must certify their engines for operation using fuel that meets the definition of pipeline-quality natural gas. The fuel used for certifying stationary SI natural gas engines must meet the definition of pipeline-quality natural gas as described in §60.4248. In addition, the manufacturer must provide information to the owner and operator of the certified stationary SI engine including the specifications of the pipeline-quality natural gas to which the engine is certified and what adjustments the owner or operator must make to the engine when installed in the field to ensure compliance with the emission standards.

(e) Manufacturers of stationary SI ICE that are lean burn engines fueled by LPG who conduct voluntary certification of stationary SI ICE to the emission standards specified in §60.4231(d) or (e), as applicable, must certify their engines for operation using fuel that meets the specifications in 40 CFR 1065.720.

(f) Manufacturers may certify their engines for operation using gaseous fuels in addition to pipeline-quality natural gas; however, the manufacturer must specify the properties of that fuel and provide testing information showing that the engine will meet the emission standards specified in §60.4231(d) or (e), as applicable, when operating on that fuel. The manufacturer must also provide instructions for configuring the stationary engine to meet the emission standards on fuels that do not meet the pipeline-quality natural gas definition. The manufacturer must also provide information to the owner and operator of the certified stationary SI engine regarding the configuration that is most conducive to reduced emissions where the engine will be operated on gaseous fuels with different quality than the fuel that it was certified to.

(g) A stationary SI engine manufacturer may certify an engine family solely to the standards applicable to landfill/digester gas engines as specified in §60.4231(d) or (e), as applicable, but must certify their engines for operation using landfill/digester gas and must add a permanent label stating that the engine is for use only in landfill/digester gas applications. The label must be added according to the labeling requirements specified in 40 CFR 1048.135(b).

(h) For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

(i) For engines being certified to the voluntary certification standards in Table 1 of this subpart, the VOC measurement shall be made by following the procedures in 40 CFR 1065.260 and 1065.265 in order to determine the total NMHC emissions by using a flame-ionization detector and non-methane cutter. As an alternative to the nonmethane cutter, manufacturers may use a gas chromatograph as allowed under 40 CFR 1065.267 and may measure ethane, as well as methane, for excluding such levels from the total VOC measurement.

[73 FR 3591, Jan. 18, 2008, as amended at 73 FR 59176, Oct. 8, 2008; 76 FR 37974, June 28, 2011]

§60.4242 What other requirements must I meet if I am a manufacturer of stationary SI internal combustion engines or equipment containing stationary SI internal combustion engines or a manufacturer of equipment containing such engines?

RESPONSE: This facility is not a manufacturer.

(a) Stationary SI internal combustion engine manufacturers must meet the provisions of 40 CFR part 90, 40 CFR part 1048, or 40 CFR part 1054, as applicable, as well as 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1048 or 1054, except that engines certified pursuant to the voluntary certification procedures in §60.4241 are subject only to the provisions indicated in §60.4247 and are permitted to provide instructions to owners and operators allowing for deviations from certified configurations, if such deviations are consistent with the provisions of paragraphs §60.4241(c) through (f). Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, as applicable. Labels on engines certified to 40 CFR part 1048 must refer to stationary engines, rather than or in addition to nonroad engines, as appropriate.

(b) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under 40 CFR part 90, 40 CFR part 1048, or 40 CFR part 1054 for that model year may certify any such family that contains both nonroad and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts. This provision also applies to equipment or component manufacturers certifying to standards under 40 CFR part 1060.

(c) Manufacturers of engine families certified to 40 CFR part 1048 may meet the labeling requirements referred to in paragraph (a) of this section for stationary SI ICE by either adding a separate label containing the information required in paragraph (a) of this section or by adding the words “and stationary” after the word “nonroad” to the label.

(d) For all engines manufactured on or after January 1, 2011, and for all engines with a maximum engine power greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, a stationary SI engine manufacturer that certifies an engine family solely to the standards applicable to emergency engines must add a permanent label stating that the engines in that family are for emergency use only. The label must be added according to the labeling requirements specified in 40 CFR 1048.135(b).

(e) All stationary SI engines subject to mandatory certification that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40

CFR 1068.230. Stationary SI engines subject to standards in 40 CFR part 90 may use the provisions in 40 CFR 90.909. Manufacturers of stationary engines with a maximum engine power greater than 25 HP that are not certified to standards and other requirements under 40 CFR part 1048 are subject to the labeling provisions of 40 CFR 1048.20 pertaining to excluded stationary engines.

(f) For manufacturers of gaseous-fueled stationary engines required to meet the warranty provisions in 40 CFR 90.1103 or 1054.120, we may establish an hour-based warranty period equal to at least the certified emissions life of the engines (in engine operating hours) if we determine that these engines are likely to operate for a number of hours greater than the applicable useful life within 24 months. We will not approve an alternate warranty under this paragraph (f) for nonroad engines. An alternate warranty period approved under this paragraph (f) will be the specified number of engine operating hours or two years, whichever comes first. The engine manufacturer shall request this alternate warranty period in its application for certification or in an earlier submission. We may approve an alternate warranty period for an engine family subject to the following conditions:

- (1) The engines must be equipped with non-resettable hour meters.
- (2) The engines must be designed to operate for a number of hours substantially greater than the applicable certified emissions life.
- (3) The emission-related warranty for the engines may not be shorter than any published warranty offered by the manufacturer without charge for the engines. Similarly, the emission-related warranty for any component shall not be shorter than any published warranty offered by the manufacturer without charge for that component.

[73 FR 3591, Jan. 18, 2008, as amended at 73 FR 59177, Oct. 8, 2008]

§60.4243 What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?

RESPONSE: This facility will comply with these standards relating to testing and record keeping depending on the size of the engine and overall applicability.

(a) 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. In addition, you must meet one of the requirements specified in (a)(1) and (2) of this section.

(1) 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. 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.

(2) 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.

(i) 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.

(ii) 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.

(iii) 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.

(b) 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.

(1) 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.

(2) 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.

(i) 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.

(ii) 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.

(c) 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).

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

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (d)(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 paragraph (d)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (d)(2).

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

(ii) Emergency stationary ICE 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 §60.17), 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 ICE 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 ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (d)(2) of this section. Except as provided in paragraph (d)(3)(i) 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 an electric grid or otherwise supply power as part of a financial arrangement with another entity.

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

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

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

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

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

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

(ii) [Reserved]

(e) 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.

(f) 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).

(g) 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.

(h) 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.

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

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

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

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

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

(1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in §60.4233(f), as applicable.

(2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in §60.4244. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.

[73 FR 3591, Jan. 18, 2008, as amended at 76 FR 37974, June 28, 2011; 78 FR 6697, Jan. 30, 2013]

§60.4244 What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?

RESPONSE: This facility will comply with these standards as applicable to the specific engine's requirements.

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.

(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.

(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.

(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:

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

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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).

(e) 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:

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

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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.

(f) 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:

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

[View or download PDF](#)

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.

(g) 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.

$$RF_i = \frac{C}{C_{Ai}} \quad (\text{Eq. 4})$$

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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.

$$C_{i_{corr}} = RF_i \times C_{i_{meas}} \quad (\text{Eq. 5})$$

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Where:

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

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

$$C_{Peq} = 0.6098 \times C_{i_{corr}} \quad (\text{Eq. 6})$$

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Where:

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

§60.4245 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?

RESPONSE: This facility will comply with these standards based on engine hp and date of manufacture.

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, 1048, 1054, and 1060, as applicable.

(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.

(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.

(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.

(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.

(e) If you own or operate an emergency stationary SI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §60.4243(d)(2)(ii) and (iii) or that operates for the purposes specified in §60.4243(d)(3)(i), you must submit an annual report according to the requirements in paragraphs (e)(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 §60.4243(d)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §60.4243(d)(2)(ii) and (iii).

(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §60.4243(d)(2)(ii) and (iii).

(vii) Hours spent for operation for the purposes specified in §60.4243(d)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in §60.4243(d)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

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

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (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 §60.4.

[73 FR 3591, Jan. 18, 2008, as amended at 73 FR 59177, Oct. 8, 2008; 78 FR 6697, Jan. 30, 2013]

§60.4246 What parts of the General Provisions apply to me?

Table 3 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

§60.4247 What parts of the mobile source provisions apply to me if I am a manufacturer of stationary SI internal combustion engines or a manufacturer of equipment containing such engines?

(a) Manufacturers certifying to emission standards in 40 CFR part 90, including manufacturers certifying emergency engines below 130 HP, must meet the provisions of 40 CFR part 90. Manufacturers certifying to emission standards in 40 CFR part 1054 must meet the provisions of 40 CFR part 1054. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060 to the extent they apply to equipment manufacturers.

(b) Manufacturers required to certify to emission standards in 40 CFR part 1048 must meet the provisions of 40 CFR part 1048. Manufacturers certifying to emission standards in 40 CFR part 1048 pursuant to the voluntary certification program must meet the requirements in Table 4 to this subpart as well as the standards in 40 CFR 1048.101.

(c) For manufacturers of stationary SI internal combustion engines participating in the voluntary certification program and certifying engines to Table 1 to this subpart, Table 4 to this subpart shows which parts of the mobile source provisions in 40 CFR parts 1048, 1065, and 1068 apply to you. Compliance with the deterioration factor provisions under 40 CFR 1048.205(n) and 1048.240 will be required for engines built new on and after January 1, 2010. Prior to January 1, 2010, manufacturers of stationary internal combustion engines participating in the voluntary certification program have the option to develop their own deterioration factors based on an engineering analysis.

[73 FR 3591, Jan. 18, 2008, as amended at 73 FR 59177, Oct. 8, 2008]

TABLE 1 TO SUBPART JJJJ OF PART 60—NO_x, CO, AND VOC EMISSION STANDARDS FOR STATIONARY NON-EMERGENCY SI ENGINES ≥100 HP (EXCEPT GASOLINE AND RICH BURN LPG), STATIONARY SI LANDFILL/DIGESTER GAS ENGINES, AND STATIONARY EMERGENCY ENGINES >25 HP

Engine type and fuel	Maximum engine power	Manufacture date	Emission standards ^a					
			g/HP-hr			ppmvd at 15% O ₂		
			NO _x	CO	VOC ^d	NO _x	CO	VOC ^d
Non-Emergency SI Natural Gas ^b and Non-Emergency SI Lean Burn LPG ^b	100≤HP<500	7/1/2008	2.0	4.0	1.0	160	540	86
		1/1/2011	1.0	2.0	0.7	82	270	60

Non-Emergency SI Lean Burn Natural Gas and LPG	500≤HP<1,350	1/1/2008	2.0	4.0	1.0	160	540	86
		7/1/2010	1.0	2.0	0.7	82	270	60
Non-Emergency SI Natural Gas and Non-Emergency SI Lean Burn LPG (except lean burn 500≤HP<1,350)	HP≥500	7/1/2007	2.0	4.0	1.0	160	540	86
	HP≥500	7/1/2010	1.0	2.0	0.7	82	270	60
Landfill/Digester Gas (except lean burn 500≤HP<1,350)	HP<500	7/1/2008	3.0	5.0	1.0	220	610	80
		1/1/2011	2.0	5.0	1.0	150	610	80
	HP≥500	7/1/2007	3.0	5.0	1.0	220	610	80
		7/1/2010	2.0	5.0	1.0	150	610	80
Landfill/Digester Gas Lean Burn	500≤HP<1,350	1/1/2008	3.0	5.0	1.0	220	610	80
		7/1/2010	2.0	5.0	1.0	150	610	80
Emergency	25<HP<130	1/1/2009	^c 10	387	N/A	N/A	N/A	N/A
	HP≥130		2.0	4.0	1.0	160	540	86

^aOwners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O₂.

^bOwners and operators of new or reconstructed non-emergency lean burn SI stationary engines with a site rating of greater than or equal to 250 brake HP located at a major source that are meeting the requirements of 40 CFR part 63, subpart ZZZZ, Table 2a do not have to comply with the CO emission standards of Table 1 of this subpart.

^cThe emission standards applicable to emergency engines between 25 HP and 130 HP are in terms of NO_x + HC.

^dFor purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

[76 FR 37975, June 28, 2011]

TABLE 2 TO SUBPART JJJJ OF PART 60—REQUIREMENTS FOR PERFORMANCE TESTS

As stated in §60.4244, you must comply with the following requirements for performance tests within 10 percent of 100 percent peak (or the highest achievable) load:

For each	Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary SI internal combustion engine demonstrating compliance according to §60.4244.	a. limit the concentration of NO _x in the stationary SI internal combustion engine exhaust.	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate	(a) Alternatively, for NO _x , O ₂ , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, Appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, Appendix A.
		ii. Determine the O ₂ concentration of the stationary internal	(2) Method 3, 3A, or 3B ^b of 40 CFR part 60, appendix A-2 or	(b) Measurements to determine O ₂ concentration must be

		combustion engine exhaust at the sampling port location;	ASTM Method D6522-00 (Reapproved 2005) ^{ae}	made at the same time as the measurements for NO _x concentration.
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 2C of 40 CFR part 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03 ^e	(c) Measurements to determine moisture must be made at the same time as the measurement for NO _x concentration.
		v. Measure NO _x at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device.	(5) Method 7E of 40 CFR part 60, appendix A-4, ASTM Method D6522-00 (Reapproved 2005) ^{ae} , Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03 ^e	(d) Results of this test consist of the average of the three 1-hour or longer runs.
	b. limit the concentration of CO in the stationary SI internal combustion engine exhaust.	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate	(a) Alternatively, for CO, O ₂ , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at

				16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, Appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, Appendix A.
		ii. Determine the O ₂ concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B ^b of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00 (Reapproved 2005) ^{ae}	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for CO concentration.
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 2C of 40 CFR part 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the	(4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or	(c) Measurements to determine moisture must be made at the same time as the measurement for CO concentration.

		sampling port location; and	ASTM Method D 6348-03 ^e	
		v. Measure CO at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device.	(5) Method 10 of 40 CFR part 60, appendix A4, ASTM Method D6522-00 (Reapproved 2005) ^{ae} , Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03 ^e	(d) Results of this test consist of the average of the three 1-hour or longer runs.
	c. limit the concentration of VOC in the stationary SI internal combustion engine exhaust	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate	(a) Alternatively, for VOC, O ₂ , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, Appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, Appendix A.

		ii. Determine the O ₂ concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B ^b of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00 (Reapproved 2005) ^{ae}	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for VOC concentration.
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 2C of 40 CFR part 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03 ^e	(c) Measurements to determine moisture must be made at the same time as the measurement for VOC concentration.
		v. Measure VOC at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device.	(5) Methods 25A and 18 of 40 CFR part 60, appendices A-6 and A-7, Method 25A with the use of a methane cutter as described in 40 CFR 1065.265, Method 18 of 40 CFR part 60, appendix A-6 ^{cd} , Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03 ^e	(d) Results of this test consist of the average of the three 1-hour or longer runs.

^aAlso, you may petition the Administrator for approval to use alternative methods for portable analyzer.

^bYou may use ASME PTC 19.10-1981, Flue and Exhaust Gas Analyses, for measuring the O₂ content of the exhaust gas as an alternative to EPA Method 3B. AMSE PTC 19.10-1981 incorporated by reference, see 40 CFR 60.17

^cYou may use EPA Method 18 of 40 CFR part 60, appendix A-6, provided that you conduct an adequate pre-survey test prior to the emissions test, such as the one described in OTM 11 on EPA's Web site (<http://www.epa.gov/ttn/emc/prelim/otm11.pdf>).

^dYou may use ASTM D6420-99 (2004), Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography/Mass Spectrometry as an alternative to EPA Method 18 for measuring total nonmethane organic. ASTM D6420-99(2004) incorporated by reference; see 40 CFR 60.17.

^eIncorporated by reference; see 40 CFR 60.17.

IDEQ PTC MODELING PROTOCOL AND REPORTS

SECTION 7.0

Emailed to Kevin Schilling, DEQ Modeling Staff
Hard Copy to Kevin Schilling, DEQ Modeling Staff

LDAR BEST MANAGEMENT PRACTICE

SECTION 8.0

NO Change to Previous Guidance or via Amendment