ALTA MESA SERVICES, LP
15021 Katy Freeway, Suite 400
Houston, Texas 77094
(281) 530-0991
(281) 530-5278 FAX

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DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE A Q PROGRAM

September 8, 2015

FedEx Overnight Delivery

Bill Rogers
Stationary Source Permit Program Coordinator
Idaho Department of Environmental Quality
1410 N. Hilton
Boise, ID 83706

RE: Permit to Construction Application
Alta Mesa Services, LP
ML Investments 1-11 Facility

Dear Mr. Rogers:

On behalf of Alta Mesa Services, LP (AMS) please find the enclosed Permit to Construct Application (PTC) for the above referenced facility. The enclosed application has been assembled following the published IDEQ Minor Source Permit to Construct Application Completeness Checklist. In addition to the complete enclosed application, an application fee of $1,000.00 has also been included with this submittal.

If you have any questions or need additional information regarding this submittal, please contact me at (281) 530-0991.

Very Truly Yours,

for

Kaitlyn Mathews
Petroleum Engineer
Alta Mesa Services, LP

Enclosure: Permit to Construct (PTC) Application
Compact Disc (CD) Application Support Materials
(1) Copy of Application with Supporting Materials

CC: Alta Mesa Services, LP. 15021 Katy Freeway 4th Floor, Houston, TX 77094

Alta Mesa Services, LP
ML Investments 1-11 Facility
New Plymouth (Payette County), Idaho 83661

Idaho Department of Environmental Quality
Minor Source Permit to Construct

Volume 1 of 1
Original Application

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

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INTRODUCTION

SECTION 1.0

Alta Mesa - Example Facility Process Description

EXAMPLE PROCESS DESCRIPTION

Production from this site will flow through separator(s) and lineheater(s) where any free water and Natural Gas Liquids will be collected. Liquids separated for the separators will be sent to onsite tanks for storage where they will be pumped to trucks for disposal. The gas will proceed to a central dehydration unit where the remaining water will be removed from the wet gas stream. The gas will then be compressed with a natural gas engine compressor set to be sent to pipeline and moved to the Refrigeration Plant approximately 8 miles to the south.

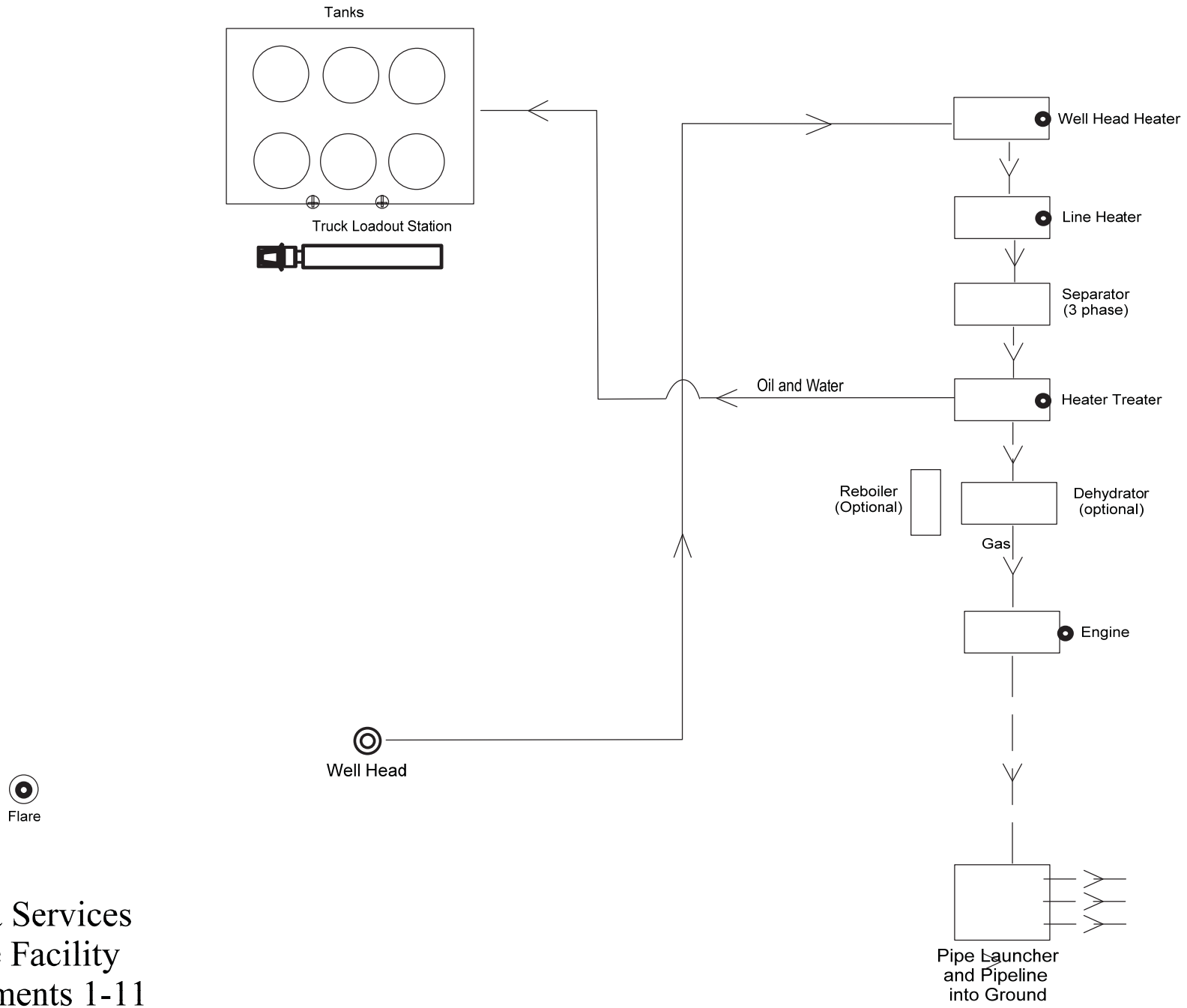
Emission points included with this project are listed below:

Emission Point Table

EPN	Description
WHHTR1	Natural gas fired heater used as a well head heater (0.05 MMbtu/hr)
LNHTR1	Natural gas fired heater used with a line heater (0.5 MMbtu/hr)
HTRTR1	Natural gas fired heater used with a heater treater (1.0 MMbtu/hr)
ENG1	Natural gas compressor engine
WTRTNK1-4	Water Tanks – 4 tanks at 80 barrels per day
OILTNK1-10	Oil Tanks – 10 tanks at 500 barrels per day
LOAD1	Loading emissions at 500 BOPD
FLR1	Flare emissions at 200 MSCFD

FACILITY DIAGRAMS

SECTION 2.0



Alta Mesa Services
Well Site Facility
ML Investments 1-11
Example Plot Plan

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

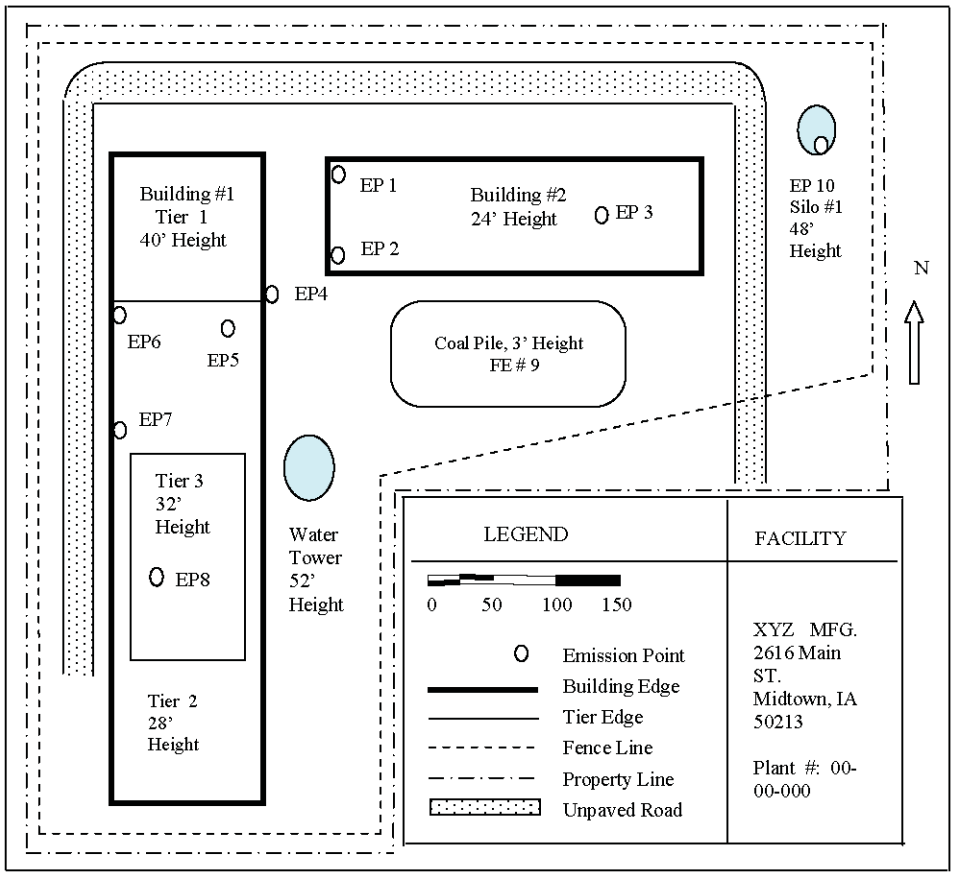
PLOT PLAN REQUIREMENTS

A scaled plot plan of the entire plant is required with your permit application. The plot plan must show:

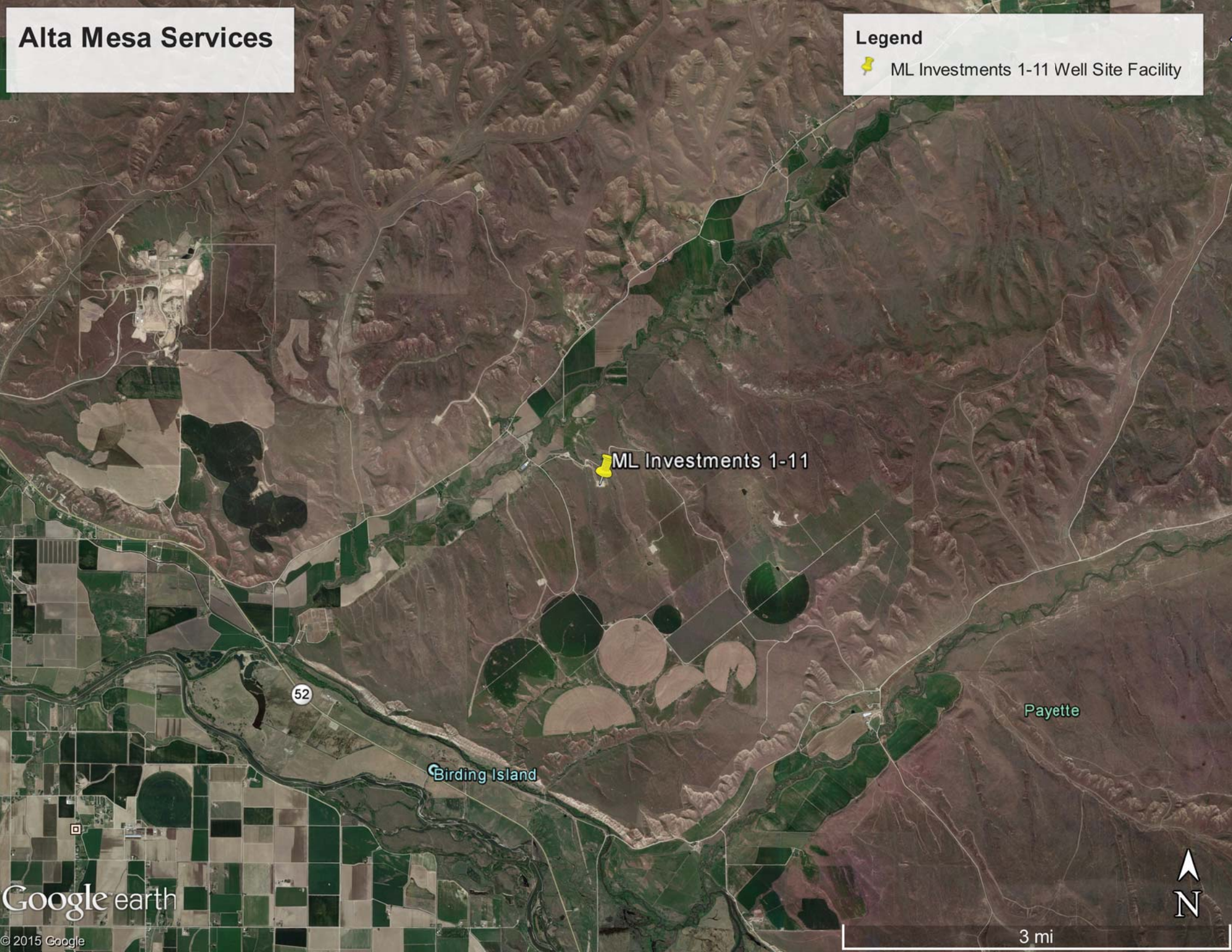
1. A scale bar and a north arrow. The scale must be of sufficient size to allow drawings to be converted to electronic format.
2. Property lines.
3. If any, fence lines or any physical barriers precluding the public access.
4. Locations of all buildings **within the property lines**. Locations of tiers on multi-level buildings. Include the building and structure heights, and tier heights. A description of the buildings or structures is optional.
5. Locations of **ALL** emission points. Emission point symbols need not be to scale.
6. Locations of all structures **above ground level** and **within property lines**. Structures **above ground level** such as a gasoline storage tank, grain storage silos, etc., must be shown. Structures **at ground level,** such as concrete pads, paved parking lots, etc., should **not** be on the plot plan.
7. Locations of unpaved roads (need not be to scale) and area sources, such as coal piles must be shown, only if fugitive emissions must be included in the permit application.
8. Highlight or mark the emission point that is the subject of this permit application so that it is clearly distinguished from other emission points or labels on the plot plan.

- **All buildings and structures above ground level and all emission points must be marked with identification numbers, which MUST be consistent with all forms in the application.**
- AutoCAD or equivalent computer-aid drawings on paper and on disk are preferred.
- Sketches are acceptable.
- Aerial photographs are not acceptable.

SAMPLE PLOT PLAN



Alta Mesa Services



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	15
	Troubleshoot, Train, Startup	15
	Construction Completion	
		60 Total Days

The construction process will occur over an estimated 2 month 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. Furthermore, the construction process may be disrupted due to weather and the winter season.

EMISSIONS INVENTORY

SECTION 4.0

Alta Mesa Services

ML Investments 1-11 Well Site Facility Emission Summary

Source Description		Well Head Heater	Line Heater	Heater Treater	Engine	Water Tanks	Oil Tanks	Loading	Flare	Summary of Emissions
Source Information		0.05 MMbtu/hr	0.5 MMbtu/hr	1.0 MMbtu/hr	Caterpillar G398TA Type Engine - 610 hp	4 Tanks at 80 BWPD (No Control)	10 Tanks at 500 BOPD (95% Control)	500 BOPD (98% Control)	Flare at 200 MSCFD	
EPNs		WHHTR1	LNHTR1	HTRTR1	ENG1	WTRTNK1-4	OILTNK1-10	LOAD1	FLR1	
VOC_{total}	lb/hr	0.0002	0.0022	0.0045	0.6718	0.1448	4.3825	0.6008	0.8429	**6.6497**
	TPY	0.0010	0.0098	0.0196	2.9425	0.6345	19.1960	0.4775	3.6918	**26.9727**
NOx	lb/hr	0.0041	0.0407	0.0813	1.3436				1.4251	**2.8947**
	TPY	0.0178	0.1780	0.3561	5.8850				6.2420	**12.6789**
CO	lb/hr	0.0034	0.0341	0.0683	2.6872				2.8451	**5.6381**
	TPY	0.0150	0.1496	0.2991	11.7700				12.4613	**24.6950**
PM_{10}	lb/hr	0.0003	0.0031	0.0062	0.0924				0.0103	**0.1123**
	TPY	0.0014	0.0135	0.0271	0.4047				0.0452	**0.4919**
$PM_{2.5}$	lb/hr	0.0002	0.0023	0.0046	0.0924				0.0103	**0.1099**
	TPY	0.0010	0.0101	0.0203	0.4047				0.0452	**0.4814**
SO_2	lb/hr	0.00002	0.0002	0.0005	0.0028				0.0103	**0.0139**
	TPY	0.0001	0.0011	0.0021	0.0123				0.0452	**0.0608**
Formaldehyde	lb/hr	3.05E-07	3.05E-06	6.10E-06	0.2514					**0.2514**
	TPY	1.34E-06	1.34E-05	2.67E-05	1.1009					**1.1010**
Benzene	lb/hr	8.54E-08	8.54E-07	1.71E-06	0.0075	0.0001	0.0030	0.0002	0.00031	**0.0112**
	TPY	3.74E-07	3.74E-06	7.48E-06	0.0329	0.0005	0.0130	0.0002	0.0014	**0.0480**
Toluene	lb/hr	1.38E-07	1.38E-06	2.76E-06	0.0027	0.0001	0.0035	0.0002	0.0003	**0.0069**
	TPY	6.05E-07	6.05E-06	1.21E-05	0.0116	0.0005	0.0145	0.0002	0.0015	**0.0283**
Ethylbenzene	lb/hr				0.0002	0.0000	0.0010	0.0001	0.0001	**0.0014**
	TPY				0.0008	0.0001	0.0035	0.0000	0.0003	**0.0048**
Xylene	lb/hr				0.0009	0.0001	0.0025	0.0002	0.0002	**0.0039**
	TPY				0.0041	0.0004	0.0115	0.0001	0.0011	**0.0172**

FUGITIVE EMISSION CALCULATIONS

EPN: FUG1

Component Type	Gas Component Count	Heavy Oil Component Count	Light Oil Component Count	Water/Light Oil Component Count
Valves	150	25	75	25
Pumps	0	4	0	1
Flanges / Connectors	150	50	100	25
Compressors	1	0	0	0
Relief Lines	3	0	2	2
Open-ended Lines	2	0	0	1
Other	0	0	5	5
Process Drains	5	5	5	5

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 Emssion 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	0.0092	0.00002	0.0055	0.0002	0.3152	0.0005	0.4125	0.0054	0%		0.7336	3.2132
Pumps	0.0053	0.0011	0.0287	0.0001	0.0000	0.0045	0.0000	0.0001	0%		0.0046	0.0200
Flanges / Connectors	0.0009	0.000001	0.0002	0.0000	0.0295	0.000043	0.0243	0.0002	0%	0%	0.0540	0.2364
Compressors	0.0194	0.0001	0.0165	0.0309	0.0044	0.000000	0.0000	0.0000	0%		0.0044	0.0194
Relief Lines	0.0194	0.0001	0.0165	0.0309	0.0133	0.000000	0.0330	0.0618	0%		0.1081	0.4735
Open-ended Lines	0.0044	0.0003	0.0031	0.0006	0.0020	0.000000	0.0000	0.0006	0%		0.0026	0.0115
Other	0.0194	0.0001	0.0165	0.0309	0.0000	0.000000	0.0825	0.1545	0%		0.2370	1.0381
Process Drains	0.0194	0.0001	0.0165	0.0309	0.0222	0.0003	0.0825	0.1545	0%		0.2595	1.1366
Totals											**1.4038**	**6.1486**

Component	Mole Wt	Mole%	lb/mol Mix	Wt%	Percentage	EMISSIONS lbs/hr	EMISSIONS TPY
Methane	16.043	84.8561	13.613	66.981	**67.0%**	VOC Speciation	
Nitrogen	28.013	0.4883	0.137	0.673	**0.7%**		
Carbon Dioxide	44.01	0.1433	0.063	0.310	**0.3%**		
Ethane	30.07	6.2131	1.868	9.192	**9.2%**		
Hydrogen Sulfide	34.08	0.0000	0.000	0.000	**0.0%**		
Propane	44.097	4.0209	1.773	8.724	**8.7%**	0.1225	0.5364
Iso-butane	58.124	0.9324	0.542	2.666	**2.7%**	0.0374	0.1640
N-Butane	58.124	1.5751	0.916	4.505	**4.5%**	0.0632	0.2770
Iso-Pentane	72.151	0.5374	0.388	1.908	**1.9%**	0.0268	0.1173
N-Pentane	72.151	0.5433	0.392	1.929	**1.9%**	0.0271	0.1186
N-Hexane	86.07	0.2249	0.194	0.952	**1.0%**	0.0134	0.0586
Cyclohexane	84.16	0.0342	0.029	0.142	**0.1%**	0.0020	0.0087
Heptanes	100.21	0.1201	0.120	0.592	**0.6%**	0.0083	0.0364
Methylcyclohexane	96.17	0.0266	0.026	0.126	**0.1%**	0.0018	0.0077
224-Trimethylpentane	114.22	0.0068	0.008	0.038	**0.0%**	0.0005	0.0023
Benzene	78.11	0.0035	0.003	0.013	**0.0%**	0.0002	0.0008
Toluene	92.14	0.0021	0.002	0.010	**0.0%**	0.0001	0.0006
Ethylbenzene	106.17	0.0003	0.000	0.002	**0.0%**	0.0000	0.0001
Xylenes	106.16	0.0005	0.001	0.003	**0.0%**	0.0000	0.0002
Hexanes +	92.12	0.2421	0.223	1.097	**1.1%**	0.0154	0.0675
C8 Heavies	96.09	0.0290	0.028	0.137	**0.137%**	0.0019	0.0084
		8.30	20.324	100.000	100%		
		100.0000	**VOC 22.843**		22.8%		

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

EPN: WHHTR1

Name/Type	Well Head Heater
Heater Rating (MMBtu/hr)	0.05
Operating Hours	8760
Fuel Heat Value (Btu/SCF)	1230

Pollutant	Emission Factor (lb/MMCF)	Reference	lb/hr	tpy
VOC	5.5	AP-42	0.0002	0.0010
NOx	100	AP-42	0.0041	0.0178
CO	84	AP-42	0.0034	0.0150
PM_{10}	7.6	AP-42	0.0003	0.0014
$PM_{2.5}$	5.7	AP-42	0.0002	0.0010
SO_2	0.6	AP-42	0.0000	0.0001
HCHO	0.0075	AP-42	0.000000	0.000001
Benzene	0.0021	AP-42	0.000000	0.000000
Toluene	0.0034	AP-42	0.000000	0.000001

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

EPN:	LNHTR1
Name/Type	Line Heater
Heater Rating (MMBtu/hr)	0.5
Operating Hours	8760
Fuel Heat Value (Btu/SCF)	1230

Pollutant	Emission Factor (lb/MMCF)	Reference	lb/hr	tpy
VOC	5.5	AP-42	0.0022	0.0098
NOx	100	AP-42	0.0407	0.1780
CO	84	AP-42	0.0341	0.1496
PM_{10}	7.6	AP-42	0.0031	0.0135
$PM_{2.5}$	5.7	AP-42	0.0023	0.0101
SO_2	0.6	AP-42	0.0002	0.0011
HCHO	0.0075	AP-42	0.000003	0.000013
Benzene	0.0021	AP-42	0.000001	0.000004
Toluene	0.0034	AP-42	0.000001	0.000006

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

EPN: HTRTR1

Name/Type	Heater Treater
Heater Rating (MMBtu/hr)	1
Operating Hours	8760
Fuel Heat Value (Btu/SCF)	1230

Pollutant	Emission Factor (lb/MMCF)	Reference	lb/hr	tpy
VOC	5.5	AP-42	0.0045	0.0196
NOx	100	AP-42	0.0813	0.3561
CO	84	AP-42	0.0683	0.2991
PM_{10}	7.6	AP-42	0.0062	0.0271
$PM_{2.5}$	5.7	AP-42	0.0046	0.0203
SO_2	0.6	AP-42	0.0005	0.0021
HCHO	0.0075	AP-42	0.000006	0.000027
Benzene	0.0021	AP-42	0.000002	0.000007
Toluene	0.0034	AP-42	0.000003	0.000012

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

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	
				lean	rich		
			grams/bhp-hr	lb/MMBtu	lb/MMBtu	lbs/hr	TPY
NOx	Manuf. Engine Data	-----	1.00			1.3436	5.8850
CO	Manuf. Engine Data	-----	2.00			2.6872	11.7700
VOC_{total}	Manuf. Engine Data	-----	0.50			0.6718	2.9425
SO2	AP-42	-----		0.00059	0.00059	0.0028	0.0123
PM10	AP-42	-----		0.00999	0.01941	0.0924	0.4047
PM2.5	AP-42	-----		0.00999	0.01941	0.0924	0.4047
HCHO	AP-42	-----		0.05280	0.02050	0.2514	1.1009
Benzene	AP-42	-----		0.00044	0.00158	0.0075	0.0329
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
Acetaldehyde	AP-42	-----		0.00836	0.00279	0.0398	0.1743
Acrolein	AP-42	-----		0.00514	0.00263	0.0245	0.1072
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
1,2-dichloropropane	AP-42	-----		0.00003	0.00001	0.0001	0.0006
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
2,2,4-Trimethylpentane	AP-42	-----		0.00025		0.0012	0.0052
Benzo(b)fluoranthene	AP-42	-----		0.00000		0.0000	0.0000
Benzo(e)pyrene	AP-42	-----		0.00000		0.0000	0.0000
Biphenyl	AP-42	-----		0.00021		0.0010	0.0044
Carbon Tetrachloride	AP-42	-----		0.00004	0.00002	0.0002	0.0008
Chlorobenzene	AP-42	-----		0.00003	0.00001	0.0001	0.0006
Chloroethane	AP-42	-----		0.00000		0.0000	0.0000
Chloroform	AP-42	-----		0.00003	0.00001	0.0001	0.0006
Chrysene	AP-42	-----		0.00000		0.0000	0.0000
Cyclopentane	AP-42	-----		0.00023		0.0011	0.0047
Ethylene Dibromide	AP-42	-----		0.00004	0.00002	0.0002	0.0009
Methanol	AP-42	-----		0.00250	0.00306	0.0146	0.0638
Methylcyclohexane	AP-42	-----		0.00123		0.0059	0.0256
Methylene Chloride	AP-42	-----		0.00002	0.00004	0.0002	0.0009
n-Hexane	AP-42	-----		0.00111		0.0053	0.0231
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
PAH	AP-42	-----		0.00003	0.00014	0.0007	0.0029
Phenol	AP-42	-----		0.00002		0.0001	0.0005
Vinyl Chloride	AP-42	-----		0.00001	0.00001	0.0001	0.0003

Example Calculations:
NOx: ((1.0 grams/bhp-hr)(610 bhp))(1/454) = 1.3436 lbs/hr
NOx: (1.3436 lbs/hr)(8760 hrs/yr)/2000 = 5.8850 TPY

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

EPN: WTRTNK1-4

Water Tank E&P Calculations: ML Investment 1-10,2-10 (Low Pressure Oil)
Operating Schedule: 8760 hours annually

Control Efficiency	0%
Throughput (BWPD)	80
Tank Count	4

Water Tank E&P Calculations					
TANKS		EMISSIONS		EMISSIONS-CONTROLLED	
Size	BWPD	lb/hr ER	Annual (TPY)	lb/hr ER	Annual (TPY)
400 bbl	20	3.621	15.862	0.0362	0.1586
		Total VOCs		0.1448	0.6345

*Emissions calculated using 1% of emissions represented from condensate

	Reduction %	1%	Total Emissions	
Emissions Speciation	lb/hr ER	Annual (TPY)	lb/hr ER	Annual (TPY)
Benzene	0.003	0.012	0.0001	0.0005
Toluene	0.003	0.013	0.0001	0.0005
Ethybenzene	0.001	0.003	0.0000	0.0001
Xylenes	0.002	0.010	0.0001	0.0004

```
*****************************************************************************************
*     Project Setup Information                                                         *
*****************************************************************************************
Project File               : C:\Documents and Settings\ECS\My Documents\My Notebook\ECS Clients\ECS CLIENT FILES\
Flowsheet Selection        : Oil Tank with Separator
Calculation Method         : AP42
Control Efficiency         : 100.0%
Known Separator Stream     : Low Pressure Oil
Entering Air Composition   : No

Filed Name                 : ML Investment 1-10, 2-10
Date                       : 2014.06.13


*****************************************************************************************
*     Data Input                                                                        *
*****************************************************************************************

Separator Pressure         : 250.00[psig]
Separator Temperature      : 102.00[F]
Ambient Pressure           : 14.70[psia]
Ambient Temperature        : 60.00[F]
C10+ SG                    : 0.7460
C10+ MW                    : 160.99

-- Low Pressure Oil ----------------------------------------------------------------------
   No.    Component             mol %
   1      H2S                   0.0000
   2      O2                    0.0000
   3      CO2                   0.0000
   4      N2                    0.0000
   5      C1                    4.9554
   6      C2                    1.7233
   7      C3                    3.3193
   8      i-C4                  1.6162
   9      n-C4                  4.0632
   10     i-C5                  2.9444
   11     n-C5                  4.1376
   12     C6                    4.5705
   13     C7                   19.8607
   14     C8                   15.0077
   15     C9                   10.4805
   16     C10+                 18.4132
   17     Benzene               0.1247
   18     Toluene               0.4338
   19     E-Benzene             0.2831
   20     Xylenes               1.0386
   21     n-C6                  6.3697
   22     224Trimethylp         0.6584

-- Sales Oil -----------------------------------------------------------------------------
Production Rate            : 20[bbl/day]
Days of Annual Operation   : 365 [days/year]
API Gravity                : 71.89
Reid Vapor Pressure        : 273.523[psia]
Bulk Temperature           : 102.00[F]

-- Tank and Shell Data -------------------------------------------------------------------
Diameter                   : 12.00[ft]
Shell Height               : 20.00[ft]
Cone Roof Slope            : 0.06
Average Liquid Height      : 10.00[ft]
Vent Pressure Range        : 0.06[psi]
Solar Absorbance           : 0.68

-- Meteorological Data -------------------------------------------------------------------
```

City : Denver, CO
Ambient Pressure : 14.70[psia]
Ambient Temperature : 60.00[F]
Min Ambient Temperature : 36.20[F]
Max Ambient Temperature : 64.30[F]
Total Solar Insolation : 1568.00[Btu/ft^2*day]

****
* Calculation Results *
****

-- Emission Summary ----------

Item	Uncontrolled [ton/yr]	Uncontrolled [lb/hr]
Total HAPs	0.760	0.174
Total HC	25.432	5.806
VOCs, C2+	19.022	4.343
VOCs, C3+	15.862	3.621

Uncontrolled Recovery Info.

Vapor	1.6200	[MSCFD]
HC Vapor	1.6200	[MSCFD]
GOR	81.00	[SCF/bbl]

-- Emission Composition ----------

No	Component	Uncontrolled [ton/yr]	Uncontrolled [lb/hr]
1	H2S	0.000	0.000
2	O2	0.000	0.000
3	CO2	0.000	0.000
4	N2	0.000	0.000
5	C1	6.409	1.463
6	C2	3.160	0.721
7	C3	5.233	1.195
8	i-C4	1.798	0.411
9	n-C4	3.392	0.774
10	i-C5	1.298	0.296
11	n-C5	1.367	0.312
12	C6	0.617	0.141
13	C7	1.027	0.234
14	C8	0.278	0.063
15	C9	0.074	0.017
16	C10+	0.021	0.005
17	Benzene	0.012	0.003
18	Toluene	0.013	0.003
19	E-Benzene	0.003	0.001
20	Xylenes	0.010	0.002
21	n-C6	0.688	0.157
22	224Trimethylp	0.032	0.007
	Total	25.432	5.806

-- Stream Data ----------

No.	Component	MW	LP Oil mol %	Flash Oil mol %	Sale Oil mol %	Flash Gas mol %	W&S Gas mol %	Total Emissions mol %
1	H2S	34.80	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	O2	32.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	CO2	44.01	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	N2	28.01	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	C1	16.04	4.9554	0.3322	0.0000	53.8958	0.0001	51.2626
6	C2	30.07	1.7233	0.5469	0.0000	14.1768	0.0000	13.4842
7	C3	44.10	3.3193	2.2146	0.8513	15.0133	19.4086	15.2280
8	i-C4	58.12	1.6162	1.4297	1.0604	3.5901	11.3572	3.9696
9	n-C4	58.12	4.0632	3.8252	3.1613	6.5826	25.1054	7.4876
10	i-C5	72.15	2.9444	3.0419	2.9465	1.9119	10.0279	2.3085
11	n-C5	72.15	4.1376	4.3419	4.3145	1.9743	11.3092	2.4304
12	C6	86.16	4.5705	4.9334	5.1624	0.7287	5.1006	0.9423
13	C7	100.20	19.8607	21.6426	23.0911	0.9976	8.3801	1.3583

14	C8	114.23	15.0077	16.4043	17.6302	0.2232	2.2323	0.3213
15	C9	128.28	10.4805	11.4657	12.3525	0.0506	0.5941	0.0771
16	C10+	160.99	18.4132	20.1517	21.7379	0.0095	0.1492	0.0163
17	Benzene	78.11	0.1247	0.1351	0.1425	0.0145	0.1060	0.0190
18	Toluene	92.13	0.4338	0.4735	0.5072	0.0133	0.1182	0.0184
19	E-Benzene	106.17	0.2831	0.3096	0.3332	0.0027	0.0280	0.0039
20	Xylenes	106.17	1.0386	1.1359	1.2228	0.0085	0.0908	0.0125
21	n-C6	86.18	6.3697	6.8977	7.2615	0.7804	5.7715	1.0243
22	224Trimethylp	114.24	0.6584	0.7181	0.7680	0.0260	0.2208	0.0356
	MW		101.63	108.31	110.89	30.89	66.55	32.63
	Stream Mole Ratio		1.0000	0.9137	0.9093	0.0863	0.0044	0.0907
	Heating Value	[BTU/SCF]				1805.20	3695.96	1897.58
	Gas Gravity	[Gas/Air]				1.07	2.30	1.13
	Bubble Pt. @ 100F	[psia]	166.49	22.28	6.54			
	RVP @ 100F	[psia]	283.14	81.19	41.31			
	Spec. Gravity @ 100F		0.661	0.670	0.672			

EPN: OILTNK1-10

Oil Tank E&P Calculations: ML Investment 1-10,2-10(Low Pressure Oil)	
Operating Schedule: 8760 hours annually	
Control Efficiency	95%
Throughput (BOPD)	500
Tank Count	10

Oil Tank E&P Calculations					
TANKS		EMISSIONS		EMISSIONS-CONTROLLED	
Size	BOPD	lb/hr ER	Annual (TPY)	lb/hr ER	Annual (TPY)
400 bbl	50	8.765	38.392	0.4383	1.9196
		Total VOCs for all Oil Tanks		4.3825	19.1960

			EMISSIONS-CONTROLLED	
Emissions Speciation	**lbs/hr**	**Tons/yr**	lb/hr ER	Annual (TPY)
Benzene	0.006	0.026	0.0030	0.0130
Toluene	0.007	0.029	0.0035	0.0145
Ethybenzene	0.002	0.007	0.0010	0.0035
Xylenes	0.005	0.023	0.0025	0.0115

```
*****************************************************************************************
*     Project Setup Information                                                         *
*****************************************************************************************
Project File               : C:\Documents and Settings\ECS\My Documents\My Notebook\ECS Clients\ECS CLIENT FILES\
Flowsheet Selection        : Oil Tank with Separator
Calculation Method         : AP42
Control Efficiency         : 100.0%
Known Separator Stream     : Low Pressure Oil
Entering Air Composition   : No

Filed Name                 : ML Investment 1-10, 2-10
Date                       : 2014.07.07


*****************************************************************************************
*     Data Input                                                                        *
*****************************************************************************************

Separator Pressure         : 250.00[psig]
Separator Temperature      : 102.00[F]
Ambient Pressure           : 14.70[psia]
Ambient Temperature        : 60.00[F]
C10+ SG                    : 0.7460
C10+ MW                    : 160.99

-- Low Pressure Oil ----------------------------------------------------------------------
   No.    Component             mol %
   1      H2S                   0.0000
   2      O2                    0.0000
   3      CO2                   0.0000
   4      N2                    0.0000
   5      C1                    4.9554
   6      C2                    1.7233
   7      C3                    3.3193
   8      i-C4                  1.6162
   9      n-C4                  4.0632
   10     i-C5                  2.9444
   11     n-C5                  4.1376
   12     C6                    4.5705
   13     C7                   19.8607
   14     C8                   15.0077
   15     C9                   10.4805
   16     C10+                 18.4132
   17     Benzene               0.1247
   18     Toluene               0.4338
   19     E-Benzene             0.2831
   20     Xylenes               1.0386
   21     n-C6                  6.3697
   22     224Trimethylp         0.6584

-- Sales Oil -----------------------------------------------------------------------------
Production Rate            : 50[bbl/day]
Days of Annual Operation   : 365 [days/year]
API Gravity                : 71.89
Reid Vapor Pressure        : 273.523[psia]
Bulk Temperature           : 102.00[F]

-- Tank and Shell Data -------------------------------------------------------------------
Diameter                   : 12.00[ft]
Shell Height               : 20.00[ft]
Cone Roof Slope            : 0.06
Average Liquid Height      : 10.00[ft]
Vent Pressure Range        : 0.06[psi]
Solar Absorbance           : 0.68

-- Meteorological Data -------------------------------------------------------------------
```

City : Denver, CO
Ambient Pressure : 14.70[psia]
Ambient Temperature : 60.00[F]
Min Ambient Temperature : 36.20[F]
Max Ambient Temperature : 64.30[F]
Total Solar Insolation : 1568.00[Btu/ft^2*day]

****
* Calculation Results *
****

-- Emission Summary ----------

Item	Uncontrolled [ton/yr]	Uncontrolled [lb/hr]
Total HAPs	1.720	0.393
Total HC	62.622	14.297
VOCs, C2+	46.465	10.608
VOCs, C3+	38.392	8.765

Uncontrolled Recovery Info.

Vapor	4.0500	[MSCFD]
HC Vapor	4.0500	[MSCFD]
GOR	81.00	[SCF/bbl]

-- Emission Composition ----------

No	Component	Uncontrolled [ton/yr]	Uncontrolled [lb/hr]
1	H2S	0.000	0.000
2	O2	0.000	0.000
3	CO2	0.000	0.000
4	N2	0.000	0.000
5	C1	16.157	3.689
6	C2	8.073	1.843
7	C3	13.373	3.053
8	i-C4	4.395	1.003
9	n-C4	8.174	1.866
10	i-C5	3.039	0.694
11	n-C5	3.174	0.725
12	C6	1.405	0.321
13	C7	2.299	0.525
14	C8	0.612	0.140
15	C9	0.160	0.037
16	C10+	0.043	0.010
17	Benzene	0.026	0.006
18	Toluene	0.029	0.007
19	E-Benzene	0.007	0.002
20	Xylenes	0.023	0.005
21	n-C6	1.559	0.356
22	224Trimethylp	0.071	0.016
	Total	62.619	14.297

-- Stream Data ----------

No.	Component	MW	LP Oil mol %	Flash Oil mol %	Sale Oil mol %	Flash Gas mol %	W&S Gas mol %	Total Emissions mol %
1	H2S	34.80	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	O2	32.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	CO2	44.01	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	N2	28.01	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	C1	16.04	4.9554	0.3322	0.0000	53.8958	0.0001	51.6882
6	C2	30.07	1.7233	0.5469	0.0911	14.1768	4.4925	13.7802
7	C3	44.10	3.3193	2.2146	1.4809	15.0133	28.4792	15.5648
8	i-C4	58.12	1.6162	1.4297	1.2368	3.5901	10.6953	3.8811
9	n-C4	58.12	4.0632	3.8252	3.4801	6.5826	22.0997	7.2182
10	i-C5	72.15	2.9444	3.0419	2.9900	1.9119	8.0158	2.1620
11	n-C5	72.15	4.1376	4.3419	4.3227	1.9743	8.9033	2.2581
12	C6	86.16	4.5705	4.9334	5.0415	0.7287	3.9011	0.8586
13	C7	100.20	19.8607	21.6426	22.3367	0.9976	6.3417	1.2165

14	C8	114.23	15.0077	16.4043	16.9936	0.2232	1.6838	0.2830
15	C9	128.28	10.4805	11.4657	11.8924	0.0506	0.4479	0.0668
16	C10+	160.99	18.4132	20.1517	20.9151	0.0095	0.1135	0.0138
17	Benzene	78.11	0.1247	0.1351	0.1386	0.0145	0.0808	0.0172
18	Toluene	92.13	0.4338	0.4735	0.4897	0.0133	0.0893	0.0164
19	E-Benzene	106.17	0.2831	0.3096	0.3209	0.0027	0.0211	0.0034
20	Xylenes	106.17	1.0386	1.1359	1.1777	0.0085	0.0685	0.0109
21	n-C6	86.18	6.3697	6.8977	7.0705	0.7804	4.3993	0.9287
22	224Trimethylp	114.24	0.6584	0.7181	0.7420	0.0260	0.1669	0.0318
	MW		101.63	108.31	109.87	30.89	61.43	32.14
	Stream Mole Ratio		1.0000	0.9137	0.9100	0.0863	0.0037	0.0900
	Heating Value	[BTU/SCF]				1805.20	3427.55	1871.66
	Gas Gravity	[Gas/Air]				1.07	2.12	1.11
	Bubble Pt. @ 100F	[psia]	166.49	22.28	8.55			
	RVP @ 100F	[psia]	283.14	81.19	51.38			
	Spec. Gravity @ 100F		0.661	0.670	0.671			

EPN: LOAD1

Tank Truck Loading Emissions

Daily Loading	500	bbl/day
Annual Loadout Amount:	7665	Mgal/yr
Maximum Gallons per Hour:	5000	gal/hr
Control Efficiency	98%	

Saturation Factor (Submerged Dedicated):	0.6	
* True Vapor Pressure of Liquid Loaded:	9.00	psia
* Molecular Weight of Vapors:	50	
Temperature '(R) @ 80F:	540	

Pollutant	Emission Factor (lb/1000gal)*	Reference	Control Efficiency	EMISSIONS Annual (TPY)
VOC_{total}	6.23	AP-42	-----	0.4775

Example Calculations:

VOC: (12.46*[(S*P*M)/T,540])*(Mgal/yr)/2000 = VOC TPY

Saturation Factor (Submerged Dedicated):	0.6	
* True Vapor Pressure of Liquid Loaded:	9.00	psia
* Molecular Weight of Vapors:	50	
Temperature '(R) @ 100F:	560	

Pollutant	Emission Factor (lb/1000gal)*	Reference	Control Efficiency	Short Term Emissions lb/hr
VOC_{total}	6.01	AP-42	-----	0.6008

Example Calculations:

VOC: (12.46*[(S*P*M)/T,540])*(Mgal/yr) = VOC lb/hr

* Emisssions were calculated using AP-42, Table 5.2.5
* Input data from Fesco Analysis 7-2-09
* Vapor Pressure - AP42 - Table 7.1-2

Speciation Table

Component	Mole Wt	Mole%	lb/mol Mix	Wt%	Percentage	EMISSIONS lbs/hr	EMISSIONS TPY
Methane	16.043	52.8958	8.486	27.580	27.6%	VOC Speciation	
Nitrogen	28.013	0.0000	0.000	0.000	0.0%		
Carbon Dioxide	44.01	0.0000	0.000	0.000	0.0%		
Ethane	30.07	14.1768	4.263	13.855	13.9%		
Hydrogen Sulfide	34.08	0.0000	0.000	0.000	0.0%		
Propane	44.097	15.0133	6.620	21.516	21.5%	0.1293	0.1027
Iso-butane	58.124	3.5901	2.087	6.782	6.8%	0.0407	0.0324
N-Butane	58.124	6.5826	3.826	12.435	12.4%	0.0747	0.0594
Iso-Pentane	72.151	1.9119	1.379	4.483	4.5%	0.0269	0.0214
N-Pentane	72.151	1.9743	1.424	4.630	4.6%	0.0278	0.0221
N-Hexane	86.07	0.7287	0.627	2.038	2.0%	0.0122	0.0097
Cyclohexane	84.16	0.0000	0.000	0.000	0.0%	0.0000	0.0000
Heptanes	100.21	0.9976	1.000	3.249	3.2%	0.0195	0.0155
Methylcyclohexane	96.17	0.0000	0.000	0.000	0.0%	0.0000	0.0000
224-Trimethylpentane	114.22	0.0260	0.030	0.097	0.1%	0.0006	0.0005
Benzene	78.11	0.0145	0.011	0.037	0.0%	0.0002	0.0002
Toluene	92.14	0.0133	0.012	0.040	0.0%	0.0002	0.0002
Ethylbenzene	106.17	0.0027	0.003	0.009	0.0%	0.0001	0.0000
Xylenes	106.16	0.0085	0.009	0.029	0.0%	0.0002	0.0001
Hexanes +	92.12	0.7804	0.719	2.336	2.3%	0.0140	0.0112
C8 Heavies	96.09	0.2833	0.272	0.885	0.9%	0.0053	0.0042
		31.93	30.769	100.000	100%		
		98.9998	VOC 58.566				

Notes:

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

Facility Flare Calculations

EPN: FLR1

Pilot Combustion Emissions						
				FACTORS	EMISSIONS	
		Pollutant	Reference	lb/MMBtu	lbs/hr	TPY
Hours of Operation	8,760	NOx	TCEQ Table 4	0.138	0.0106	0.0465
Hours per Day	24	CO	TCEQ Table 4	0.276	0.0212	0.0928
Throughput (SCFD)	1,500	THC	AP-42	0.140	0.0108	0.0471
Hourly Flowrate (SCFH)	63	VOC	THC %		0.0025	0.0108
Lower heating value (BTU/SCF)	1,230	SO2	AP-42	0.001	0.0001	0.0003
Combustion Rate	0.08	PM10 / soot	AP-42	0.001	0.0001	0.0003
		PM2.5 / soot	AP-42	0.001	0.0001	0.0003
Calculation Notes:	*VOCs taken from gas analysis listed below*					
	Emission Factors are from AP-42 - 13.5					

Waste Gas (Tank Vapors) Combustion Emissions						
				FACTORS	EMISSIONS	
		Pollutant	Reference	lb/MMBtu	lbs/hr	TPY
Hours of Operation	8,760	NOx	TCEQ Table 4	0.138	1.4145	6.1955
Hours per Day	24	CO	TCEQ Table 4	0.276	2.8239	12.3686
Throughput (SCFD)	200,000	THC	AP-42	0.140	1.4350	6.2853
Hourly Flowrate (SCFH)	8,333	VOC	THC %		0.8404	3.6810
Lower heating value (BTU/SCF)	1,230	SO2	AP-42	0.001	0.0103	0.0449
Combustion Rate	10.25	PM10 / soot	AP-42	0.001	0.0103	0.0449
		PM2.5 / soot	AP-42	0.001	0.0103	0.0449
Calculation Notes:	*VOCs taken from gas analysis listed below*					
	Emission Factors are from AP-42 - 13.5					

Field Gas or Pilot Gas

Component	Mole Wt	Mole%	lb/mol Mix	Wt%	Percentage	EMISSIONS lbs/hr	EMISSIONS TPY
Methane	16.043	84.8561	13.613	66.981	67.0%	VOC Speciation	
Nitrogen	28.013	0.4883	0.137	0.673	0.7%		
Carbon Dioxide	44.01	0.1433	0.063	0.310	0.3%		
Ethane	30.07	6.2131	1.868	9.192	9.2%		
Hydrogen Sulfide	34.08	0.0000	0.000	0.000	0.0%		
Propane	44.097	4.0209	1.773	8.724	8.7%	0.0002	0.0009
Iso-butane	58.124	0.9324	0.542	2.666	2.7%	0.0001	0.0003
N-Butane	58.124	1.5751	0.916	4.505	4.5%	0.0001	0.0005
Iso-Pentane	72.151	0.5374	0.388	1.908	1.9%	0.0000	0.0002
N-Pentane	72.151	0.5433	0.392	1.929	1.9%	0.0000	0.0002
N-Hexane	86.07	0.2249	0.194	0.952	1.0%	0.0000	0.0001
Cyclohexane	84.16	0.0342	0.029	0.142	0.1%	0.0000	0.0000
Heptanes	100.21	0.1201	0.120	0.592	0.6%	0.0000	0.0001
Methylcyclohexane	96.17	0.0266	0.026	0.126	0.1%	0.0000	0.0000
224-Trimethylpentane	114.22	0.0068	0.008	0.038	0.0%	0.0000	0.0000
Benzene	78.11	0.0035	0.003	0.013	0.0%	0.0000	0.0000
Toluene	92.14	0.0021	0.002	0.010	0.0%	0.0000	0.0000
Ethylbenzene	106.17	0.0003	0.000	0.002	0.0%	0.0000	0.0000
Xylenes	106.16	0.0005	0.001	0.003	0.0%	0.0000	0.0000
Hexanes +	92.12	0.2421	0.223	1.097	1.1%	0.0000	0.0001
C8 Heavies	96.09	0.0290	0.028	0.137	0.1%	0.0000	0.0000
		8.30	20.324	100.000	100%		
		100.0000	**VOC 22.8**				

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

Waste Gas

Component	Mole Wt	Mole%	lb/mol Mix	Wt%	Percentage	EMISSIONS lbs/hr	EMISSIONS TPY
Methane	16.043	52.8958	8.486	27.580	27.6%	VOC Speciation	
Nitrogen	28.013	0.0000	0.000	0.000	0.0%		
Carbon Dioxide	44.01	0.0000	0.000	0.000	0.0%		
Ethane	30.07	14.1768	4.263	13.855	13.9%		
Hydrogen Sulfide	34.08	0.0000	0.000	0.000	0.0%		
Propane	44.097	15.0133	6.620	21.516	21.5%	0.1808	0.7920
Iso-butane	58.124	3.5901	2.087	6.782	6.8%	0.0570	0.2496
N-Butane	58.124	6.5826	3.826	12.435	12.4%	0.1045	0.4577
Iso-Pentane	72.151	1.9119	1.379	4.483	4.5%	0.0377	0.1650
N-Pentane	72.151	1.9743	1.424	4.630	4.6%	0.0389	0.1704
N-Hexane	86.07	0.7287	0.627	2.038	2.0%	0.0171	0.0750
Cyclohexane	84.16	0.0000	0.000	0.000	0.0%	0.0000	0.0000
Heptanes	100.21	0.9976	1.000	3.249	3.2%	0.0273	0.1196
Methylcyclohexane	96.17	0.0000	0.000	0.000	0.0%	0.0000	0.0000
224-Trimethylpentane	114.22	0.0260	0.030	0.097	0.1%	0.0008	0.0036
Benzene	78.11	0.0145	0.011	0.037	0.0%	0.0003	0.0014
Toluene	92.14	0.0133	0.012	0.040	0.0%	0.0003	0.0015
Ethylbenzene	106.17	0.0027	0.003	0.009	0.0%	0.0001	0.0003
Xylenes	106.16	0.0085	0.009	0.029	0.0%	0.0002	0.0011
Hexanes +	92.12	0.7804	0.719	2.336	2.3%	0.0196	0.0860
C8 Heavies	96.09	0.2833	0.272	0.885	0.9%	0.0074	0.0326
		31.93	30.769	100.000	100%		
		98.9998	**VOC 58.6**				

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

IDEQ FORMS AND TABLES

SECTION 5.0

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

General Information **Form GI**
Revision 7
6/29/12

Please see instructions on back page before filling out the form. All information is required. If information is missing, the application will not be processed.

Identification

1. Facility name Alta Mesa Services - ML Investments 1-11

2. Existing facility identification number N/A

☒ **Check if new facility (not yet operating)**

3. Brief project description Oil and Gas Production Facility

Facility Information

4. Primary facility permitting contact name Kaitlyn Mathews **Contact type** Facility permitting contact

Telephone number 281-943-1339 **E-mail** kmathews@altamesa.net

5. Alternate facility permitting contact name Bill Wolcott **Alternate contact type** Facility permitting contact

Telephone number 409-331-9175 **E-mail** bwolcott@wolcottenvironmental.com

6. Mailing address where permit will be sent (street/city/county/state/zip code) 15021 Katy Freeway, Suite 400, Houston, Harris County, Texas, 77094

7. Physical address of permitted facility (if different than mailing address) (street/ city/county/state/zip code) Approx. 3.5 miles ENE of Intersection of Hwy 52 and Little Willow Rd., New Plymouth, Payette County, Idaho 83661

8. Is the equipment portable? ☐ **Yes*** ☒ **No** ***If yes, complete and attach PERF; see instructions.**

9. NAICS codes: **Primary NAICS** 211111 **Secondary NAICS** 211112

10. Brief business description and principal product produced Crude Petroleum and Natural Gas Production Extraction

11. Identify any adjacent or contiguous facility this company owns and/or operates N/A

12. Specify type of application ☒ **Permit to construct (PTC); application fee of $1,000 required. See instructions.**

☐ **Tier I permit** ☐ **Tier II permit** ☐ **Tier II/Permit to construct**

For Tier I permitted facilities only: If you are applying for a PTC then you must also specify how the PTC will be incorporated into the Tier I permit.

☐ **Co-process Tier I modification and PTC** ☐ **Incorporate PTC at the time of Tier I renewal** ☐ **Administratively amend the Tier I permit to incorporate the PTC upon applicant's request (IDAPA 58.01.01.209.05.a, b, or c)**

Certification

In accordance with IDAPA 58.01.01.123 (Rules for the Control of Air Pollution in Idaho), I certify based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.

13. Responsible official's name Dale Hayes **Official's title** VP of Operations

Official's address 15021 Katy Freeway, Suite 400, Houston, Texas 77094

Telephone number 281-530-0991 **E-mail** dhayes@altamesa.net

Official's signature **Date**

☒ **14. Check here to indicate that you want to review the draft permit before final issuance.**

Instructions for Form GI

This form is used by DEQ to identify a company or facility, equipment locations, and personnel involved with the permit application. Additional information may be required.

Identification

1. Provide the facility name. If the facility is *doing business as* (dba) a facility different in name than the primary facility, provide the dba name.
2. If the facility is an existing permitted facility in Idaho, provide the facility identification number. If the facility is new and not yet operating, check the box.
3. Provide a brief project description as on Form CS, Cover Sheet. This is useful in case any pages of the application are separated.

Facility information

4. Provide name of the *primary* person who should be contacted regarding this permit. Provide telephone number and e-mail address for the primary person.
5. Provide name of an *alternate* person who should be contacted if the person listed in 4 is not available. Provide telephone number and e-mail address for the alternate person.
6. Provide the mailing address where DEQ should mail the permit.
7. Provide the physical address where the equipment is located (if different than 6).
8. Indicate if the permitted equipment is portable by checking the appropriate box. If the permitted equipment is portable, complete and attach the Portable Equipment Relocation Form (PERF) to this application. The PERF is available from DEQ's website at http://www.deq.idaho.gov/media/576773-ptc_relocation.pdf or http://www.deq.idaho.gov/media/576769-ptc_relocation.doc (for Word format).
9. Provide the North American Industry Classification System (NAICS) code for your facility. NAICS codes can be found at http://www.census.gov/epcd/naics02/naicod02.htm.
10. Describe the primary activity and principal product of your business as it relates to the NAICS code listed in 9.
11. Identify and describe any other sources or equipment owned and operated by the primary facility that are located on contiguous or adjacent properties and the role the source or equipment plays in supporting the primary facility.
12. Check the box describing the type of permit application.

    Important note: If application is for a permit to construct (PTC), include the application fee of $1,000 when submitting the application. Per IDAPA 58.01.01.226.02, DEQ cannot process the application without the fee, which must be submitted with the application.

    For existing Tier I facilities that are applying for a PTC, the applicant must specify how the PTC will be incorporated into the Tier I permit (IDAPA 58.01.01.209.05). If you have questions, call the Air Permit Hotline at 1-877-573-7648.

Certification

13. Provide the name, title, address, telephone number, and e-mail of the facility's responsible official. Responsible official is defined in IDAPA 58.01.01.006.99. The responsible official must sign and date the application before it is submitted to DEQ.
14. Check this box to indicate that you want to review a draft before the final permit is issued.

Department of Environmental Quality
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline - 1-877-5PERMIT

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

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

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

Version 1, August 2010

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	**1.1010**
Benzene	**0.0480**
Toluene	**0.0283**
Ethylbenzene	**0.0048**
Xylene	**0.0172**
n-Hexane	**0.1080**
2,2,4-Trimethylpentane	**0.0092**
Total	**1.3165**

* 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 included[1].**

[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.

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

Version 1, August 2010

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)
Toluene	0	0.0069	0.0069	25	See Protocol
Ethylbenzene	0	0.0014	0.0014	29	See Protocol
Xylene	0	0.0039	0.0039	29	See Protocol
Acrolein	0	0.0245	0.0245	0.017	See Protocol
Methylcyclohexane	0	0.0059	0.0059	107	See Protocol

n-pentane	0	0.0791	0.0791	118	See Protocol
Cyclopentane	0	0.0011	0.0011	114.67	See Protocol
1,2-dichloropropane	0	0.0001	0.0001	23.133	See Protocol
Biphenyl	0	0.0010	0.0010	0.1	See Protocol
Chlorobenzene	0	0.0001	0.0001	23.3	See Protocol
Chloroethane	0	0.0000	0.0000	27	See Protocol
Methanol	0	0.0146	0.0146	17.3	See Protocol
n-Nonane	0	0.0005	0.0005	70	See Protocol
n-Octane	0	0.0017	0.0017	93.3	See Protocol
Naphthalene	0	0.0005	0.0005	3.33	See Protocol
Phenol	0	0.0001	0.0001	1.27	See Protocol
n-Hexane	0	0.0347	0.0347	12	See Protocol
2,2,4-trimethylpentane	0	0.0026	0.0026	23.3	See Protocol
Heptane	0	0.0468	0.0468	109	See Protocol
Cyclohexane	0	.000003	.000003	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	2.51E-01	2.51E-01	5.10E-04	See Protocol
Benzene	0	1.12E-02	1.12E-02	8.00E-04	See Protocol

acetaldehyde	0	3.98E-02	3.98E-02	3.00E-03	See Protocol
1,1-dichloroethane	0	1.12E-04	1.12E-04	2.50E-04	See Protocol
1,2-dichloroethane	0	1.12E-04	1.12E-04	2.50E-04	See Protocol
1,1,2-Trichloroethane	0	1.51E-04	1.51E-04	4.20E-04	See Protocol
1,1,2,2-Tetrachloroethane	0	1.90E-04	1.90E-04	1.10E-05	See Protocol
1,3-butadiene	0	3.16E-03	3.16E-03	2.40E-05	See Protocol
1,3-dichloropropene	0	1.26E-04	1.26E-04	1.90E-07	See Protocol
Benzo(e)pyrene	0	1.98E-06	1.98E-06	2.00E-06	See Protocol
Carbon Tetrachloride	0	1.75E-04	1.75E-04	4.40E-04	See Protocol
Chloroform	0	1.36E-04	1.36E-04	2.80E-04	See Protocol
Ethylene Dibromide	0	2.11E-04	2.11E-04	3.00E-05	See Protocol
Methylene Chloride	0	1.96E-04	1.96E-04	1.60E-03	See Protocol
PAH	0	6.71E-04	6.71E-04	9.10E-05	See Protocol
Vinyl Chloride	**0**	7.09E-05	7.09E-05	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.

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

Version 1, August 2010

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 submitted[1]. 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	NO_X[a]	CO[a]	PM_{10}[a]	$PM_{2.5}$[a]	SO_2[a]
	T/yr	T/yr	T/yr	T/yr	T/yr	T/yr
Point Sources						
ENG1	2.9425	5.8850	11.7700	0.4047	0.4047	0.0123
WHHTR1	0.0010	0.0178	0.0150	0.0014	0.0010	0.0001
LNHTR1	0.0098	0.1780	0.1496	0.0135	0.0101	0.0011
HTRTR1	0.0196	0.3561	0.2991	0.0271	0.0203	0.0021
WTRTNK1-4	0.6345	0.00	0.00	0.00	0.00	0.00
OILTNK1-10	19.1960	0.00	0.00	0.00	0.00	0.00
LOAD1	0.4775	0.00	0.00	0.00	0.00	0.00
FLR1	3.6918	6.2420	12.4613	0.0452	0.0452	0.0452
Fugitive Sources *{For listed source categories only, see item 3 below in the instructions}*						
FUG1	0.00	0.00	0.00	0.00	0.00	0.00
Totals	**26.9727**	**12.6789**	**24.6950**	**0.4919**	**0.4814**	**0.0608**

a) NSR Regulated air Pollutants are defined[2] 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

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[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,

NSPS (40 CFR 60)(i.e. TRS, fluoride, sulfuric acid mist) & Class I & Class II Ozone Depleting Substances (40 CFR 82)(i.e. CFC, HCFC, Halon, etc.)

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
- 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

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methane, hydrofluorcarbons, perfluorcarbons, sulfur hexafluoride). Be sure to show all calculations as described in the instructions.

- Phosphate rock processing plants
- Coke oven batteries
- Sulfur recovery plants
- Fossil fuel-fired steam electric plants greater than 250 MMBtu/hr)
- Categories regulated by NSPS or NESHAP prior to 8/7/80

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

Version 2, January 2011

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 pollutants[1]. 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	2.6872	2.6872	0.0	0.0
Well Head Heater	WHHTR1	0.0003	0.0002	0.0002	0.00002	0.00002	0.0041	0.0041	0.0034	0.0034	0.0	0.0
Line Heater	LNHTR1	0.0031	0.0023	0.0023	0.0002	0.0002	0.0407	0.0407	0.0341	0.0341	0.0	0.0
Heater Treater	HTRTR1	0.0062	0.0046	0.0046	0.0005	0.0005	0.0813	0.0813	0.0683	0.0683	0.0	0.0
Flare	FLR1	0.0103	0.0103	0.0103	0.0103	0.0103	1.4251	1.4251	2.8451	2.8451	0.0	0.0
Fugitive Sources												
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.

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[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.**

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[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 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.

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[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.

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

Emissions Units Industrial IC Engine Information - **Form EU1**
Revision 9
10/23/13

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

IDENTIFICATION

1. Company Name	2. Facility Name:
Alta Mesa Services, LP	ML Investments 1-11 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 downstream gathering locations.

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: Caterpillar 6. Model: G398 TA HCR 7. Date manufactured: >2006 8. Model year: _____

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 22 feet Temperature 1075 ºF 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 ≤ 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:	2. Facility Name:
Alta Mesa Service, LP	ML Investments 1-11
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 ☐ 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 ☐ 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.	☑ A detailed regulatory review is provided (Follow instructions and example). ☐ 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

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 prior to the application being submitted but that DEQ will not perform the required technical or regulatory analysis on the applicant's behalf.

Instructions for Form FRA

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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 %O2/)-(A
%CO2/)]

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 be issued to the facility for the new emissions source.

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 in 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: 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 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 as required.

(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 a pre-permit construction approval.

(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 PM_{10} 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)

See the included process description and corresponding emissions/sources table.

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 HAP_S 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 HAP_S, 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, Tanks, IC Engines

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 (SO_2) emissions from affected facilities that commence construction, modification or reconstruction after August 23, 2011.

RESPONSE: This 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: This 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: This 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: This 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: This 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: This Facility is not 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: This Facility is not a natural gas processing plant subject to this rule provision.

(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 satisfy 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 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 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 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: This Facility is not an affected facility under this portion of the 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: This Facility in not 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: This Facility is not 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: This Facility does not have 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: This Facility does not have a sweetening unit affected facility.

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

RESPONSE: This 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: This 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 (H_2S) 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: This 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: This Facility does not have a sweetening unit affected facility.

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

RESPONSE: This 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: This 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: This 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: This 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: This 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.

(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: Alta Mesa 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: Alta Mesa 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: This 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: This 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: This 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: This 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: This 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 comply with applicable portions of 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: This 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: This 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: This 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: This 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: This 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: This Facility will comply with applicably portions of this rule.

§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.

§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 SO_2 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 SO_2 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: This 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: This 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: This 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: This Facility will comply with the applicable portions of this rule.

(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: Alta Mesa 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.

§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 will satisfy (including VRU standards) any potentially applicable requirements of NSPS OOOO.

RESPONSE: This 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 will satisfy (including VRU standards) any potentially applicable requirements of NSPS OOOO.

RESPONSE: This 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 will satisfy (including VRU standards) any potentially applicable requirements of NSPS OOOO.

RESPONSE: This 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: This Facility has affected facilities under this rule. Pneumatic controller affected facilities, reciprocating compressors, and storage vessel affected facilities. 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: Alta Mesa 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.

§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 will satisfy (including VRU standards) any potentially applicable requirements of NSPS OOOO.

RESPONSE: This 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 will satisfy (including VRU standards) any potentially applicable requirements of NSPS OOOO.

RESPONSE: This 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: Alta Mesa will comply with these provisions upon startup. Notifications will be completed as required. No notifications are required for pneumatic controllers or reciprocating compressors or storage vessel affected facilities.

(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: Alta Mesa 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: Alta Mesa 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: Alta Mesa 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: Alta Mesa 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.

§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: This 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. Alta Mesa understands these definitions.

NESHAP Applicability (40 CFR 61)

- Not Applicable

NSPS Applicability (40 CFR 60) - JJJJ

- Potential Applicability pending engine manufacture date

NESHAP Applicability (40 CFR 63) - ZZZZ

- Potential Applicability pending engine manufacture date

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: This facility will comply with these standards pending final engine type and date of manufacture.

(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 Alta Mesa Idaho Little Willow Road Gathering 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: This facility will comply with these standards pending final engine type and date of manufacture.

(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: This facility will comply with these standards pending final engine type and date of manufacture.

(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: Alta Mesa will install engines that comply with any applicable standards that apply.

(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: Alta Mesa will comply with this standard upon startup of the affected source if applicable

(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 Alta Mesa Little Willow Road Gathering 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 Alta Mesa Little Willow Road Gathering 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 Alta Mesa Little Willow Road Gathering 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: Response: This facility will comply with these standards pending final engine type and date of manufacture.

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: Alta Mesa 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: This facility will comply with these standards pending final engine type and date of manufacture.

(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.

(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: This facility is considered remote and will comply with this standard.

[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.

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: Alta Mesa 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.

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 Alta Mesa Little Willow Road Gathering 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 Alta Mesa Little Willow Road Gathering 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: Alta Mesa will comply with the applicable performance testing requirements depending on the engine applicability.

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: Alta Mesa 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: Alta Mesa will comply with Table 3 of this subpart as appropriate.

§63.6620 What performance tests and other procedures must I use?

RESPONSE: Alta Mesa 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:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (Eq.\ 1)$$

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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 (CO_2). If pollutant concentrations are to be corrected to 15 percent oxygen and CO_2 concentration is measured in lieu of oxygen concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 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:

$$F_o = \frac{0.209\ F_d}{F_c} \quad (Eq.\ 2)$$

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Where:

F_o = Fuel factor based on the ratio of oxygen volume to the ultimate CO_2 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 CO_2 produced to the gross calorific value of the fuel from Method 19, dsm3/J (dscf/106 Btu)

(ii) Calculate the CO_2 correction factor for correcting measurement data to 15 percent O_2, as follows:

$$X_{CO2} = \frac{5.9}{F_o} \quad (Eq.\ 3)$$

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Where:

X_{CO2} = CO_2 correction factor, percent.

5.9 = 20.9 percent O_2—15 percent O_2, the defined O_2 correction value, percent.

(iii) Calculate the CO, THC, and formaldehyde gas concentrations adjusted to 15 percent O_2 using CO_2 as follows:

$$C_{adj} = C_d \frac{X_{CO2}}{\%CO_2} \quad (Eq. 4)$$

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Where:

C_{adj} = Calculated concentration of CO, THC, or formaldehyde adjusted to 15 percent O_2.

C_d = Measured concentration of CO, THC, or formaldehyde, uncorrected.

X_{CO2} = CO_2 correction factor, percent.

$\%CO_2$ = Measured CO_2 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 O_2 or CO_2 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 CO_2 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: Alta Mesa 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: Alta Mesa 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: Alta Mesa 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: Alta Mesa 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 O_2 using one of the O_2 measurement methods specified in Table 4 of this subpart. Measurements to determine O_2 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 O_2 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: Alta Mesa 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: Alta Mesa 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: Alta Mesa will perform and complete all required tests, reports, and notifications in accordance with this rule depending on the engine's applicability.

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 O_2 using one of the O_2 measurement methods specified in Table 4 of this subpart. Measurements to determine O_2 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 O_2 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: Alta Mesa 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: Alta Mesa will submit all required pretest notifications and compliance demonstrations according to these sections and within the appropriate timeframes according to the engine's applicability.

(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: Alta Mesa will submit all required compliance reports according to these sections and within the appropriate timeframes that are required according to the specific engine's applicability.

(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: Alta Mesa 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: Alta Mesa will maintain the appropriate records specified in (a)-(c) of this section that apply.

(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 ≥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 ≥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 ≤500 HP Located at a Major Source of HAP Emissions

RESPONSE: This Section is not applicable - the Alta Mesa Idaho Little Willow Road Gathering 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: This 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 1 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 (O_2), a CO emission standard 540 ppmvd at 15 percent O_2 (675 ppmvd at 15 percent O_2 for non-emergency engines less than 100 HP), and a VOC emission standard of 86 ppmvd at 15 percent O_2, where the date of manufacture of the engine is:

(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 ≤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:

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

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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:

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

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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:

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

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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.

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

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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.

$$C_{ima} = RF_i \times C_{imw} \qquad \text{(Eq. 5)}$$

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Where:

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

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

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

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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

[a]Owners 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 O_2.

[b]Owners 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.

[c]The emission standards applicable to emergency engines between 25 HP and 130 HP are in terms of NO_X + HC.

[d]For 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 *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 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	(5) Method 7E of 40 CFR part 60, appendix A-4, ASTM	(d) Results of this test consist of the average of

		combustion engine; if using a control device, the sampling site must be located at the outlet of the control device.	Method D6522-00 (Reapproved 2005)[ae], Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03[e]	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 *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	(2) Method 3, 3A, or 3B[b] of 40 CFR part 60, appendix A-2 or ASTM Method	(b) Measurements to determine O_2 concentration must be made at the same time as

		sampling port location;	D6522-00 (Reapproved 2005)[ae]	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 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 CO concentration.
		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.

[a]Also, you may petition the Administrator for approval to use alternative methods for portable analyzer.

[b]You may use ASME PTC 19.10-1981, Flue and Exhaust Gas Analyses, for measuring the O_2 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

[c]You 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*).

[d]You 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.

[e]Incorporated by reference; see 40 CFR 60.17.

[79 FR 11253, Feb. 27, 2014]

TABLE 3 TO SUBPART JJJJ OF PART 60—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART JJJJ

[As stated in §60.4246, 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 §60.4248.
§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 Recordkeeping	Yes	Except that §60.7 only applies as specified in §60.4245.
§60.8	Performance tests	Yes	Except that §60.8 only applies to owners and operators who are subject to performance testing in subpart JJJJ.
§60.9	Availability of information	Yes	
§60.10	State Authority	Yes	
§60.11	Compliance with standards and maintenance requirements	Yes	Requirements are specified in subpart JJJJ.
§60.12	Circumvention	Yes	
§60.13	Monitoring requirements	No	
§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	No	
§60.19	General notification and reporting requirements	Yes	

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TABLE 4 TO SUBPART JJJJ OF PART 60—APPLICABILITY OF MOBILE SOURCE PROVISIONS FOR MANUFACTURERS PARTICIPATING IN THE VOLUNTARY CERTIFICATION PROGRAM AND CERTIFYING STATIONARY SI ICE TO EMISSION STANDARDS IN TABLE 1 OF SUBPART JJJJ

[As stated in §60.4247, you must comply with the following applicable mobile source provisions if you are a manufacturer participating in the voluntary certification program and certifying stationary SI ICE to emission standards in Table 1 of subpart JJJJ]

Mobile source provisions citation	**Subject of citation**	**Applies to subpart**	**Explanation**
1048 subpart A	Overview and Applicability	Yes	
1048 subpart B	Emission Standards and Related Requirements	Yes	Except for the specific sections below.
1048.101	Exhaust Emission Standards	No	
1048.105	Evaporative Emission Standards	No	
1048.110	Diagnosing Malfunctions	No	
1048.140	Certifying Blue Sky Series Engines	No	
1048.145	Interim Provisions	No	

1048 subpart C	Certifying Engine Families	Yes	Except for the specific sections below.
1048.205(b)	AECD reporting	Yes	
1048.205(c)	OBD Requirements	No	
1048.205(n)	Deterioration Factors	Yes	Except as indicated in 60.4247(c).
1048.205(p)(1)	Deterioration Factor Discussion	Yes	
1048.205(p)(2)	Liquid Fuels as they require	No	
1048.240(b)(c)(d)	Deterioration Factors	Yes	
1048 subpart D	Testing Production-Line Engines	Yes	
1048 subpart E	Testing In-Use Engines	No	
1048 subpart F	Test Procedures	Yes	
1065.5(a)(4)	Raw sampling (refers reader back to the specific emissions regulation for guidance)	Yes	
1048 subpart G	Compliance Provisions	Yes	
1048 subpart H	Reserved		
1048 subpart I	Definitions and Other Reference Information	Yes	
1048 appendix I and II	Yes		
1065 (all subparts)	Engine Testing Procedures	Yes	Except for the specific section below.
1065.715	Test Fuel Specifications for Natural Gas	No	

1068 (all subparts)	General Compliance Provisions for Nonroad Programs	Yes	Except for the specific sections below.
1068.245	Hardship Provisions for Unusual Circumstances	No	
1068.250	Hardship Provisions for Small-Volume Manufacturers	No	
1068.255	Hardship Provisions for Equipment Manufacturers and Secondary Engine Manufacturers	No	

NESHAP Subpart HH – Glycol Dehydrators

§63.760 Applicability and designation of affected source.

(a) This subpart applies to the owners and operators of the emission points, specified in paragraph (b) of this section that are located at oil and natural gas production facilities that meet the specified criteria in paragraphs (a)(1) and either (a)(2) or (a)(3) of this section.

(1) Facilities that are major or area sources of hazardous air pollutants (HAP) as defined in §63.761. Emissions for major source determination purposes can be estimated using the maximum natural gas or hydrocarbon liquid throughput, as appropriate, calculated in paragraphs (a)(1)(i) through (iii) of this section. As an alternative to calculating the maximum natural gas or hydrocarbon liquid throughput, the owner or operator of a new or existing source may use the facility's design maximum natural gas or hydrocarbon liquid throughput to estimate the maximum potential emissions. Other means to determine the facility's major source status are allowed, provided the information is documented and recorded to the Administrator's satisfaction in accordance with §63.10(b)(3). A facility that is determined to be an area source, but subsequently increases its emissions or its potential to emit above the major source levels, and

becomes a major source, must comply thereafter with all provisions of this subpart applicable to a major source starting on the applicable compliance date specified in paragraph (f) of this section. Nothing in this paragraph is intended to preclude a source from limiting its potential to emit through other appropriate mechanisms that may be available through the permitting authority.

Response: This facility is not a Major Source of HAPs.

(i) If the owner or operator documents, to the Administrator's satisfaction, a decline in annual natural gas or hydrocarbon liquid throughput, as appropriate, each year for the 5 years prior to October 15, 2012, the owner or operator shall calculate the maximum natural gas or hydrocarbon liquid throughput used to determine maximum potential emissions according to the requirements specified in paragraph (a)(1)(i)(A) of this section. In all other circumstances, the owner or operator shall calculate the maximum throughput used to determine whether a facility is a major source in accordance with the requirements specified in paragraph (a)(1)(i)(B) of this section.

(A) The maximum natural gas or hydrocarbon liquid throughput is the average of the annual natural gas or hydrocarbon liquid throughput for the 3 years prior to October 15, 2012, multiplied by a factor of 1.2.

(B) The maximum natural gas or hydrocarbon liquid throughput is the highest annual natural gas or hydrocarbon liquid throughput over the 5 years prior to October 15, 2012, multiplied by a factor of 1.2.

(ii) The owner or operator shall maintain records of the annual facility natural gas or hydrocarbon liquid throughput each year and upon request submit such records to the Administrator. If the facility annual natural gas or hydrocarbon liquid throughput increases above the maximum natural gas or hydrocarbon liquid throughput calculated in paragraph (a)(1)(i)(A) or (a)(1)(i)(B) of this section, the maximum natural gas or hydrocarbon liquid throughput must be recalculated using the higher throughput multiplied by a factor of 1.2.

(iii) The owner or operator shall determine the maximum values for other parameters used to calculate emissions as the maximum for the period over which the maximum natural gas or hydrocarbon liquid throughput is determined in accordance with paragraph (a)(1)(i)(A) or (B) of this section. Parameters, other than glycol circulation rate, shall be based on either highest measured values or annual average. For estimating maximum potential emissions from glycol dehydration units, the glycol circulation rate used in the calculation shall be the unit's maximum rate under its physical and operational design consistent with the definition of potential to emit in §63.2.

(2) Facilities that process, upgrade, or store hydrocarbon liquids.

Response: This facility is subject to this standard. Based on 63.760 (a)(2) – the dehydrator is an affected source under Subpart HH.

(3) Facilities that process, upgrade, or store natural gas prior to the point at which natural gas enters the natural gas transmission and storage source category or is delivered to a final end user. For the purposes of this subpart, natural gas enters the natural gas transmission and storage source category after the natural gas processing plant, when present. If no natural gas processing plant is present, natural gas enters the natural gas transmission and storage source category after the point of custody transfer.

(b) The affected sources for major sources are listed in paragraph (b)(1) of this section and for area sources in paragraph (b)(2) of this section.

(1) For major sources, the affected source shall comprise each emission point located at a facility that meets the criteria specified in paragraph (a) of this section and listed in paragraphs (b)(1)(i) through (b)(1)(iv) of this section.

(i) Each glycol dehydration unit as specified in paragraphs (b)(1)(i)(A) through (C) of this section.

(A) Each large glycol dehydration unit;

(B) Each small glycol dehydration unit for which construction commenced on or before August 23, 2011, is an existing small glycol dehydration unit; and

(C) Each small glycol dehydration unit for which construction commenced after August 23, 2011, is a new small glycol dehydration unit.

(ii) Each storage vessel with the potential for flash emissions;

(iii) The group of all ancillary equipment, except compressors, intended to operate in volatile hazardous air pollutant service (as defined in §63.761), which are located at natural gas processing plants; and

(iv) Compressors intended to operate in volatile hazardous air pollutant service (as defined in §63.761), which are located at natural gas processing plants.

(2) For area sources, the affected source includes each triethylene glycol (TEG) dehydration unit located at a facility that meets the criteria specified in paragraph (a) of this section.

(c) Any source that determines it is not a major source but has actual emissions of 5 tons per year or more of a single HAP, or 12.5 tons per year or more of a combination of HAP (*i.e.,* 50 percent of the major source thresholds), shall update its major source determination within 1 year of the prior determination or October 15, 2012, whichever is later, and each year thereafter, using gas composition data measured during the preceding 12 months.

(d) The owner and operator of a facility that does not contain an affected source as specified in paragraph (b) of this section are not subject to the requirements of this subpart.

(e) *Exemptions.* The facilities listed in paragraphs (e)(1) and (e)(2) of this section are exempt from the requirements of this subpart. Records shall be maintained as required in §63.10(b)(3).

(1) A facility that exclusively processes, stores, or transfers black oil (as defined in §63.761) is not subject to the requirements of this subpart. For the purposes of this subpart, a black oil facility that uses natural gas for fuel or generates gas from black oil shall qualify for this exemption.

(2) A major source facility, prior to the point of custody transfer, with a facility-wide actual annual average natural gas throughput less than 18.4 thousand standard cubic meters per day and a facility-wide actual annual average hydrocarbon liquid throughput less than 39,700 liters per day.

(f) The owner or operator of an affected major source shall achieve compliance with the provisions of this subpart by the dates specified in paragraphs (f)(1), (2), and (f)(7) through (9) of this section. The owner or operator of an affected area source shall achieve compliance with the provisions of this subpart by the dates specified in paragraphs (f)(3) through (6) of this section.

(1) Except as specified in paragraphs (f)(7) through (9) of this section, the owner or operator of an affected major source, the construction or reconstruction of which commenced before February 6, 1998, shall achieve compliance with the applicable provisions of this subpart no later than June 17, 2002, except as provided for in §63.6(i). The owner or operator of an area source, the construction or reconstruction of which commenced before February 6, 1998, that increases its emissions of (or its potential to emit) HAP such that the source becomes a major source that is subject to this subpart shall comply with this subpart 3 years after becoming a major source.

(2) Except as specified in paragraphs (f)(7) through (9) of this section, the owner or operator of an affected major source, the construction or reconstruction of which commences on or after February 6, 1998, shall achieve compliance with the applicable provisions of this subpart immediately upon initial startup or June 17, 1999, whichever date is later. Area sources, other than production field facilities identified in (f)(9) of this section, the construction or reconstruction of which commences on or after February 6, 1998, that become major sources shall comply with the provisions of this standard immediately upon becoming a major source.

(3) The owner or operator of an affected area source, located in an Urban-1 county, as defined in §63.761, the construction or reconstruction of which commences before February 6, 1998, shall achieve compliance with the provisions of this subpart no later than the dates specified in paragraphs (f)(3)(i) or (ii) of this section, except as provided for in §63.6(i).

(i) If the affected area source is located within any UA plus offset and UC boundary, as defined in §63.761, the compliance date is January 4, 2010.

(ii) If the affected area source is not located within any UA plus offset and UC boundary, as defined in §63.761, the compliance date is January 5, 2009.

(4) The owner or operator of an affected area source, located in an Urban-1 county, as defined in §63.761, the construction or reconstruction of which commences on or after February 6, 1998, shall achieve compliance with the provisions of this subpart immediately upon initial startup or January 3, 2007, whichever date is later.

(5) The owner or operator of an affected area source that is not located in an Urban-1 county, as defined in §63.761, the construction or reconstruction of which commences before July 8, 2005, shall achieve compliance with the provisions of this subpart no later than the dates specified in paragraphs (f)(5)(i) or (ii) of this section, except as provided for in §3.6(i).

(i) If the affected area source is located within any UA plus offset and UC boundary, as defined in §63.761, the compliance date is January 4, 2010.

(ii) If the affected area source is not located within any UA plus offset and UC boundary, as defined in §63.761, the compliance date is January 5, 2009.

(6) The owner or operator of an affected area source that is not located in an Urban-1 county, as defined in §63.761, the construction or reconstruction of which commences on or after July 8, 2005, shall achieve compliance with the provisions of this subpart immediately upon initial startup or January 3, 2007, whichever date is later.

(7) Each affected existing small glycol dehydration unit, as defined in §63.761, located at a major source, that commenced construction before August 23, 2011, must achieve compliance no later than October 15, 2015, except as provided in §63.6(i).

(8) Each affected new small glycol dehydration unit, as defined in §63.761, located at a major source, that commenced construction on or after August 23, 2011, must achieve compliance immediately upon initial startup or October 15, 2012, whichever is later.

(9) A production field facility, as defined in §63.761, constructed on or before August 23, 2011, that was previously determined to be an area source but becomes a major source (as defined in paragraph 3 of the major source definition in §63.761) on the October 15, 2012 must achieve compliance no later than October 15, 2015, except as provided in §63.6(i).

(g) The following provides owners or operators of an affected source at a major source with information on overlap of this subpart with other regulations for equipment leaks. The owner or operator of an affected source at a major source shall document that they are complying with other regulations by keeping the records specified in §63.774(b)(9).

(1) [Reserved]

(2) After the compliance dates specified in paragraph (f) of this section, ancillary equipment and compressors that are subject to this subpart and are also subject to and controlled under the provisions of 40 CFR part 61, subpart V, are only required to comply with the requirements of 40 CFR part 61, subpart V.

(3) After the compliance dates specified in paragraph (f) of this section, ancillary equipment and compressors that are subject to this subpart and are also subject to and controlled under the provisions of 40 CFR part 63, subpart H, are only required to comply with the requirements of 40 CFR part 63, subpart H.

(h) An owner or operator of an affected source that is a major source or is located at a major source and is subject to the provisions of this subpart is also subject to 40 CFR part 70 or part 71 operating permit requirements. Unless otherwise required by law, the owner or operator of an area source subject to the provisions of this subpart is exempt from the permitting requirements established by 40 CFR part 70 or 40 CFR part 71.

[64 FR 32628, June 17, 1999, as amended at 66 FR 34550, June 29, 2001; 72 FR 36, Jan. 3, 2007; 77 FR 49568, Aug. 16,

§63.762 Affirmative defense for violations of emission standards during malfunction.

(a) The provisions set forth in this subpart shall apply at all times.

(b)-(c) [Reserved]

(d) In response to an action to enforce the standards set forth in this subpart, you may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined in 40 CFR 63.2. Appropriate penalties may be assessed; however, if you fail to meet your burden of proving all of the requirements in the affirmative defense, the affirmative defense shall not be available for claims for injunctive relief.

(1) To establish the affirmative defense in any action to enforce such a standard, you must timely meet the reporting requirements in paragraph (d)(2) of this section, and must prove by a preponderance of evidence that:

(i) The violation:

(A) Was caused by a sudden, infrequent, and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner; and

(B) Could not have been prevented through careful planning, proper design or better operation and maintenance practices; and

(C) Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(D) Was not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(ii) Repairs were made as expeditiously as possible when a violation occurred. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and

(iii) The frequency, amount and duration of the violation (including any bypass) were minimized to the maximum extent practicable; and

(iv) If the violation resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(v) All possible steps were taken to minimize the impact of the violation on ambient air quality, the environment, and human health; and

(vi) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(vii) All of the actions in response to the violation were documented by properly signed, contemporaneous operating logs; and

(viii) At all times, the affected source was operated in a manner consistent with good practices for minimizing emissions; and

(ix) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the violation resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of any emissions that were the result of the malfunction.

(2) *Report.* The owner or operator seeking to assert an affirmative defense shall submit a written report to the Administrator with all necessary supporting documentation, that it has met the requirements set forth in paragraph (d)(1) of this section. This affirmative defense report shall be included in the first periodic compliance, deviation report or excess emission report otherwise required after the initial occurrence of the violation of the relevant standard (which may be the end of any applicable averaging period). If such compliance, deviation report or excess emission report is due less than 45 days after the initial occurrence of the violation, the affirmative defense report may be included in the second compliance, deviation report or excess emission report due after the initial occurrence of the violation of the relevant standard.

[77 FR 49569, Aug. 16, 2012]

§63.764 General standards.

Response: This facility will comply with these standards

(a) Table 2 of this subpart specifies the provisions of subpart A (General Provisions) of this part that apply and those that do not apply to owners and operators of affected sources subject to this subpart.

(b) All reports required under this subpart shall be sent to the Administrator at the appropriate address listed in §63.13. Reports may be submitted on electronic media.

(c) Except as specified in paragraph (e) of this section, the owner or operator of an affected source located at an existing or new major source of HAP emissions shall comply with the standards in this subpart as specified in paragraphs (c)(1) through (3) of this section.

Response: This facility is not a Major Source of HAPs.

(1) For each glycol dehydration unit process vent subject to this subpart, the owner or operator shall comply with the requirements specified in paragraphs (c)(1)(i) through (iii) of this section.

(i) The owner or operator shall comply with the control requirements for glycol dehydration unit process vents specified in §63.765;

(ii) The owner or operator shall comply with the monitoring requirements specified in §63.773; and

(iii) The owner or operator shall comply with the recordkeeping and reporting requirements specified in §§63.774 and 63.775.

(2) For each storage vessel with the potential for flash emissions subject to this subpart, the owner or operator shall comply with the requirements specified in paragraphs (c)(2)(i) through (iii) of this section.

(i) The control requirements for storage vessels specified in §63.766;

(ii) The monitoring requirements specified in §63.773; and

(iii) The recordkeeping and reporting requirements specified in §§63.774 and 63.775.

(3) For ancillary equipment (as defined in §63.761) and compressors at a natural gas processing plant subject to this subpart, the owner or operator shall comply with the requirements for equipment leaks specified in §63.769.

(d) Except as specified in paragraph (e)(1) of this section, the owner or operator of an affected source located at an existing or new area source of HAP emissions shall comply with the applicable standards specified in paragraph (d) of this section.

Response: This facility is an Area Source and will comply with this section.

(1) Each owner or operator of an area source located within an UA plus offset and UC boundary (as defined in §63.761) shall comply with the provisions specified in paragraphs (d)(1)(i) through (iii) of this section.

(i) The control requirements for glycol dehydration unit process vents specified in §63.765;

(ii) The monitoring requirements specified in §63.773; and

(iii) The recordkeeping and reporting requirements specified in §§63.774 and 63.775.

(2) Each owner or operator of an area source not located in a UA plus offset and UC boundary (as defined in §63.761) shall comply with paragraphs (d)(2)(i) through (iii) of this section.

(i) Determine the optimum glycol circulation rate using the following equation:

$$L_{OPT} = 1.15 * 3.0 \frac{\text{gal TEG}}{\text{lb } H_2O} * \left(\frac{F * (I - O)}{24 \text{ hr/day}} \right)$$

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Where:

L_{OPT} = Optimal circulation rate, gal/hr.

F = Gas flowrate (MMSCF/D).

I = Inlet water content (lb/MMSCF).

O = Outlet water content (lb/MMSCF).

3.0 = The industry accepted rule of thumb for a TEG-to water ratio (gal TEG/lb H_2O).

1.15 = Adjustment factor included for a margin of safety.

(ii) Operate the TEG dehydration unit such that the actual glycol circulation rate does not exceed the optimum glycol circulation rate determined in accordance with paragraph (d)(2)(i) of this section. If the TEG dehydration unit is unable to meet the sales gas specification for moisture content using the glycol circulation rate determined in accordance with paragraph (d)(2)(i), the owner or operator must calculate an alternate circulation rate using GRI-GLYCalc™, Version 3.0 or higher. The owner or operator must

document why the TEG dehydration unit must be operated using the alternate circulation rate and submit this documentation with the initial notification in accordance with §63.775(c)(7).

(iii) Maintain a record of the determination specified in paragraph (d)(2)(ii) in accordance with the requirements in §63.774(f) and submit the Initial Notification in accordance with the requirements in §63.775(c)(7). If operating conditions change and a modification to the optimum glycol circulation rate is required, the owner or operator shall prepare a new determination in accordance with paragraph (d)(2)(i) or (ii) of this section and submit the information specified under §63.775(c)(7)(ii) through (v).

(e) *Exemptions.* (1) The owner or operator of an area source is exempt from the requirements of paragraph (d) of this section if the criteria listed in paragraph (e)(1)(i) or (ii) of this section are met, except that the records of the determination of these criteria must be maintained as required in §63.774(d)(1).

(i) The actual annual average flowrate of natural gas to the glycol dehydration unit is less than 85 thousand standard cubic meters per day, as determined by the procedures specified in §63.772(b)(1) of this subpart; or

(ii) The actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere are less than 0.90 megagram per year, as determined by the procedures specified in §63.772(b)(2) of this subpart.

Response: This facility is exempt if less than 3 MMCFD or less than 1 TPY Benzene. Records will be kept according to 63.774.

(2) The owner or operator is exempt from the requirements of paragraph (c)(3) of this section for ancillary equipment (as defined in §63.761) and compressors at a natural gas processing plant subject to this subpart if the criteria listed in paragraph (e)(2)(i) or (ii) of this section are met, except that the records of the determination of these criteria must be maintained as required in §63.774(d)(2).

(i) Any ancillary equipment and compressors that contain or contact a fluid (liquid or gas) must have a total VHAP concentration less than 10 percent by weight, as determined by the procedures specified in §63.772(a); or

(ii) That ancillary equipment and compressors must operate in VHAP service less than 300 hours per calendar year.

(f) Each owner or operator of a major HAP source subject to this subpart is required to apply for a 40 CFR part 70 or part 71 operating permit from the appropriate permitting authority. If the Administrator has approved a State operating permit program under 40 CFR part 70, the permit shall be obtained from the State authority. If a State operating permit program has not been approved, the owner or operator of a source shall apply to the EPA Regional Office pursuant to 40 CFR part 71.

(g)-(h) [Reserved]

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

unsuccessful, and a leak is detected, the owner or operator shall take further action as required by the applicable provisions of this subpart.

(j) At all times the owner or operator 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. 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.

[64 FR 32628, June 17, 1999, as amended at 66 FR 34551, June 29, 2001; 72 FR 38, Jan. 3, 2007; 77 FR 49570, Aug. 16, 2012]

§63.765 Glycol dehydration unit process vent standards.

Response: This facility will comply with these standards

(a) This section applies to each glycol dehydration unit subject to this subpart that must be controlled for air emissions as specified in either paragraph (c)(1)(i) or paragraph (d)(1)(i) of §63.764.

(b) Except as provided in paragraph (c) of this section, an owner or operator of a glycol dehydration unit process vent shall comply with the requirements specified in paragraphs (b)(1) and (b)(2) of this section.

(1) For each glycol dehydration unit process vent, the owner or operator shall control air emissions by either paragraph (b)(1)(i), (ii), or (iii) of this section.

(i) The owner or operator of a large glycol dehydration unit, as defined in §63.761, shall connect the process vent to a control device or a combination of control devices through a closed-vent system. The closed-vent system shall be designed and operated in accordance with the requirements of §63.771(c). The control device(s) shall be designed and operated in accordance with the requirements of §63.771(d).

(ii) The owner or operator of a large glycol dehydration unit shall connect the process vent to a control device or combination of control devices through a closed-vent system and the outlet benzene emissions from the control device(s) shall be reduced to a level less than 0.90 megagrams per year. The closed-vent system shall be designed and operated in accordance with the requirements of §63.771(c). The control device(s) shall be designed and operated in accordance with the requirements of §63.771(d), except that the performance levels specified in §63.771(d)(1)(i) and (ii) do not apply.

(iii) You must limit BTEX emissions from each existing small glycol dehydration unit process vent, as defined in §63.761, to the limit determined in Equation 1 of this section. You must limit BTEX emissions from each new small glycol dehydration unit process vent, as defined in §63.761, to the limit determined in Equation 2 of this section. The limits determined using Equation 1 or Equation 2 must be met in accordance with one of the alternatives specified in paragraphs (b)(1)(iii)(A) through (D) of this section.

$$EL_{BTEX} = 3.28x10^{-4} \bullet Throughput \bullet C_{i,BTEX} \bullet 365 \frac{days}{yr} \bullet \frac{1\ Mg}{1x10^{6}\ grams}$$

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Equation 1

Where:

EL_{BTEX} = Unit-specific BTEX emission limit, megagrams per year;

3.28×10^{-4} = BTEX emission limit, grams BTEX/standard cubic meter-ppmv;

Throughput = Annual average daily natural gas throughput, standard cubic meters per day.

$C_{i,BTEX}$ = average annual BTEX concentration of the natural gas at the inlet to the glycol dehydration unit, ppmv.

$$EL_{BTEX} = 4.66x10^{-6} \bullet Throughput \bullet C_{i,BTEX} \bullet 365 \frac{days}{yr} \bullet \frac{1\ Mg}{1x10^{6}\ grams}$$

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Where:

EL_{BTEX} = Unit-specific BTEX emission limit, megagrams per year;

4.66×10^{-6} = BTEX emission limit, grams BTEX/standard cubic meter-ppmv;

Throughput = Annual average daily natural gas throughput, standard cubic meters per day.

$C_{i,BTEX}$ = average annual BTEX concentration of the natural gas at the inlet to the glycol dehydration unit, ppmv.

(A) Connect the process vent to a control device or combination of control devices through a closed-vent system. The closed vent system shall be designed and operated in accordance with the requirements of §63.771(c). The control device(s) shall be designed and operated in accordance with the requirements of §63.771(f).

(B) Meet the emissions limit through process modifications in accordance with the requirements specified in §63.771(e).

(C) Meet the emissions limit for each small glycol dehydration unit using a combination of process modifications and one or more control devices through the requirements specified in paragraphs (b)(1)(iii)(A) and (B) of this section.

(D) Demonstrate that the emissions limit is met through actual uncontrolled operation of the small glycol dehydration unit. Document operational parameters in accordance with the requirements specified in §63.771(e) and emissions in accordance with the requirements specified in §63.772(b)(2).

(2) One or more safety devices that vent directly to the atmosphere may be used on the air emission control equipment installed to comply with paragraph (b)(1) of this section.

(c) As an alternative to the requirements of paragraph (b) of this section, the owner or operator may comply with one of the requirements specified in paragraphs (c)(1) through (3) of this section.

(1) The owner or operator shall control air emissions by connecting the process vent to a process natural gas line.

(2) The owner or operator shall demonstrate, to the Administrator's satisfaction, that the total HAP emissions to the atmosphere from the large glycol dehydration unit process vent are reduced by 95.0 percent through process modifications, or a combination of process modifications and one or more control devices, in accordance with the requirements specified in §63.771(e).

(3) Control of HAP emissions from a GCG separator (flash tank) vent is not required if the owner or operator demonstrates, to the Administrator's satisfaction, that total emissions to the atmosphere from the glycol dehydration unit process vent are reduced by one of the levels specified in paragraph (c)(3)(i) through (iv) of this section, through the installation and operation of controls as specified in paragraph (b)(1) of this section.

(i) For any large glycol dehydration unit, HAP emissions are reduced by 95.0 percent or more.

(ii) For any large glycol dehydration unit, benzene emissions are reduced to a level less than 0.90 megagrams per year.

(iii) For each existing small glycol dehydration unit, BTEX emissions are reduced to a level less than the limit calculated by Equation 1 of paragraph (b)(1)(iii) of this section.

(iv) For each new small glycol dehydration unit, BTEX emissions are reduced to a level less than the limit calculated by Equation 2 of paragraph (b)(1)(iii) of this section.

[64 FR 32628, June 17, 1999, as amended at 66 FR 34551, June 29, 2001; 72 FR 38, Jan. 3, 2007; 77 FR 49570, Aug. 16, 2012]

§63.771 Control equipment requirements.

Response: This facility will comply with these standards

(a) This section applies to each cover, closed-vent system, and control device installed and operated by the owner or operator to control air emissions as required by the provisions of this subpart. Compliance with paragraphs (b), (c), and (d) of this section will be determined by review of the records required by §63.774 and the reports required by §63.775, by review of performance test results, and by inspections.

(b) *Cover requirements.* (1) The cover and all openings on the cover (e.g., access hatches, sampling ports, and gauge wells) shall be designed to form a continuous barrier over the entire surface area of the liquid in the storage vessel.

(2) Each cover opening shall be secured in a closed, sealed position (e.g., covered by a gasketed lid or cap) whenever material is in the unit on which the cover is installed except during those times when it is necessary to use an opening as follows:

(i) To add material to, or remove material from the unit (this includes openings necessary to equalize or balance the internal pressure of the unit following changes in the level of the material in the unit);

(ii) To inspect or sample the material in the unit;

(iii) To inspect, maintain, repair, or replace equipment located inside the unit; or

(iv) To vent liquids, gases, or fumes from the unit through a closed-vent system to a control device designed and operated in accordance with the requirements of paragraphs (c) and (d) of this section.

(c) *Closed-vent system requirements.* (1) The closed-vent system shall route all gases, vapors, and fumes emitted from the material in an emissions unit to a control device that meets the requirements specified in paragraph (d) of this section.

(2) The closed-vent system shall be designed and operated with no detectable emissions.

(3) If the closed-vent system contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device, the owner or operator shall meet the requirements specified in paragraphs (c)(3)(i) and (c)(3)(ii) of this section.

(i) For each bypass device, except as provided for in paragraph (c)(3)(ii) of this section, the owner or operator shall either:

(A) At the inlet to the bypass device that could divert the stream away from the control device to the atmosphere, properly install, calibrate, maintain, and operate a flow indicator that is capable of taking periodic readings and sounding an alarm when the bypass device is open such that the stream is being, or could be, diverted away from the control device to the atmosphere; or

(B) Secure the bypass device valve installed at the inlet to the bypass device in the non-diverting position using a car-seal or a lock-and-key type configuration.

(ii) Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to the requirements of paragraph (c)(3)(i) of this section.

(d) *Control device requirements for sources except small glycol dehydration units.* Owners and operators of small glycol dehydration units, shall comply with the control device requirements in paragraph (f) of this section.

(1) The control device used to reduce HAP emissions in accordance with the standards of this subpart shall be one of the control devices specified in paragraphs (d)(1)(i) through (iii) of this section.

(i) An enclosed combustion device (e.g., thermal vapor incinerator, catalytic vapor incinerator, boiler, or process heater) that is designed and operated in accordance with one of the following performance requirements:

(A) Reduces the mass content of either TOC or total HAP in the gases vented to the device by 95.0 percent by weight or greater as determined in accordance with the requirements of §63.772(e); or

(B) Reduces the concentration of either TOC or total HAP in the exhaust gases at the outlet to the device to a level equal to or less than 20 parts per million by volume on a dry basis corrected to 3 percent oxygen as determined in accordance with the requirements of §63.772(e); or

(C) Operates at a minimum temperature of 760 degrees C, provided the control device has demonstrated, under §63.772(e), that combustion zone temperature is an indicator of destruction efficiency.

(D) If a boiler or process heater is used as the control device, then the vent stream shall be introduced into the flame zone of the boiler or process heater.

(ii) A vapor recovery device (e.g., carbon adsorption system or condenser) or other non-destructive control device that is designed and operated to reduce the mass content of either TOC or total HAP in the gases vented to the device by 95.0 percent by weight or greater as determined in accordance with the requirements of §63.772(e).

(iii) A flare, as defined in §63.761, that is designed and operated in accordance with the requirements of §63.11(b).

(2) [Reserved]

(3) The owner or operator shall demonstrate that a control device achieves the performance requirements of paragraph (d)(1) of this section as specified in §63.772(e).

(4) The owner or operator shall operate each control device in accordance with the requirements specified in paragraphs (d)(4)(i) and (ii) of this section.

(i) Each control device used to comply with this subpart shall be operating at all times when gases, vapors, and fumes are vented from the HAP emissions unit or units through the closed-vent system to the control device, as required under §63.765, §63.766, and §63.769. An owner or operator may vent more than one unit to a control device used to comply with this subpart.

(ii) For each control device monitored in accordance with the requirements of §63.773(d), the owner or operator shall demonstrate compliance according to the requirements of §63.772(f) or (g), as applicable.

(5) For each carbon adsorption system used as a control device to meet the requirements of paragraph (d)(1) of this section, the owner or operator shall manage the carbon as follows:

(i) Following the initial startup of the control device, all carbon in the control device shall be replaced with fresh carbon on a regular, predetermined time interval that is no longer than the carbon service life established for the carbon adsorption system. Records identifying the schedule for replacement and records of each carbon replacement shall be maintained as required in §63.774(b)(7)(ix). The schedule for replacement shall be submitted with the Notification of Compliance Status Report as specified in §63.775(d)(5)(iv). Each carbon replacement must be reported in the Periodic Reports as specified in §63.772(e)(2)(xii).

(ii) The spent carbon removed from the carbon adsorption system shall be either regenerated, reactivated, or burned in one of the units specified in paragraphs (d)(5)(ii)(A) through (d)(5)(ii)(G) of this section.

(A) Regenerated or reactivated in a thermal treatment unit for which the owner or operator has been issued a final permit under 40 CFR part 270 that implements the requirements of 40 CFR part 264, subpart X.

(B) Regenerated or reactivated in a thermal treatment unit equipped with and operating air emission controls in accordance with this section.

(C) Regenerated or reactivated in a thermal treatment unit equipped with and operating organic air emission controls in accordance with a national emissions standard for HAP under another subpart in 40 CFR part 61 or this part.

(D) Burned in a hazardous waste incinerator for which the owner or operator has been issued a final permit under 40 CFR part 270 that implements the requirements of 40 CFR part 264, subpart O.

(E) Burned in a hazardous waste incinerator which the owner or operator has designed and operates in accordance with the requirements of 40 CFR part 265, subpart O.

(F) Burned in a boiler or industrial furnace for which the owner or operator has been issued a final permit under 40 CFR part 270 that implements the requirements of 40 CFR part 266, subpart H.

(G) Burned in a boiler or industrial furnace which the owner or operator has designed and operates in accordance with the interim status requirements of 40 CFR part 266, subpart H.

(e) *Process modification requirements.* Each owner or operator that chooses to comply with §63.765(c)(2) shall meet the requirements specified in paragraphs (e)(1) through (e)(3) of this section.

(1) The owner or operator shall determine glycol dehydration unit baseline operations (as defined in §63.761). Records of glycol dehydration unit baseline operations shall be retained as required under §63.774(b)(10).

(2) The owner or operator shall document, to the Administrator's satisfaction, the conditions for which glycol dehydration unit baseline operations shall be modified to achieve the 95.0 percent overall HAP emission reduction, or BTEX limit determined in §63.765(b)(1)(iii), as applicable, either through process modifications or through a combination of process modifications and one or more control devices. If a combination of process modifications and one or more control devices are used, the owner or operator shall also establish the emission reduction to be achieved by the control device to achieve an overall HAP emission reduction of 95.0 percent for the glycol dehydration unit process vent or, if applicable, the BTEX limit determined in §63.765(b)(1)(iii) for the small glycol dehydration unit process vent. Only modifications in glycol dehydration unit operations directly related to process changes, including but not limited to changes in glycol circulation rate or glycol-HAP absorbency, shall be allowed. Changes in the inlet gas characteristics or natural gas throughput rate shall not be considered in determining the overall emission reduction due to process modifications.

(3) The owner or operator that achieves a 95.0 percent HAP emission reduction or meets the BTEX limit determined in §63.765(b)(1)(iii), as applicable, using process modifications alone shall comply with paragraph (e)(3)(i) of this section. The owner or operator that achieves a 95.0 percent HAP emission

reduction or meets the BTEX limit determined in §63.765(b)(1)(iii), as applicable, using a combination of process modifications and one or more control devices shall comply with paragraphs (e)(3)(i) and (ii) of this section.

(i) The owner or operator shall maintain records, as required in §63.774(b)(11), that the facility continues to operate in accordance with the conditions specified under paragraph (e)(2) of this section.

(ii) The owner or operator shall comply with the control device requirements specified in paragraph (d) or (f) of this section, as applicable, except that the emission reduction or limit achieved shall be the emission reduction or limit specified for the control device(s) in paragraph (e)(2) of this section.

(f) *Control device requirements for small glycol dehydration units.* (1) The control device used to meet BTEX the emission limit calculated in §63.765(b)(1)(iii) shall be one of the control devices specified in paragraphs (f)(1)(i) through (iii) of this section.

(i) An enclosed combustion device (e.g., thermal vapor incinerator, catalytic vapor incinerator, boiler, or process heater) that is designed and operated to meet the levels specified in paragraphs (f)(1)(i)(A) or (B) of this section. If a boiler or process heater is used as the control device, then the vent stream shall be introduced into the flame zone of the boiler or process heater.

(A) The mass content of BTEX in the gases vented to the device is reduced as determined in accordance with the requirements of §63.772(e).

(B) The concentration of either TOC or total HAP in the exhaust gases at the outlet of the device is reduced to a level equal to or less than 20 parts per million by volume on a dry basis corrected to 3 percent oxygen as determined in accordance with the requirements of §63.772(e).

(ii) A vapor recovery device (e.g., carbon adsorption system or condenser) or other non-destructive control device that is designed and operated to reduce the mass content of BTEX in the gases vented to the device as determined in accordance with the requirements of §63.772(e).

(iii) A flare, as defined in §63.761, that is designed and operated in accordance with the requirements of §63.11(b).

(2) The owner or operator shall operate each control device in accordance with the requirements specified in paragraphs (f)(2)(i) and (ii) of this section.

(i) Each control device used to comply with this subpart shall be operating at all times. An owner or operator may vent more than one unit to a control device used to comply with this subpart.

(ii) For each control device monitored in accordance with the requirements of §63.773(d), the owner or operator shall demonstrate compliance according to the requirements of either §63.772(f) or (h).

(3) For each carbon adsorption system used as a control device to meet the requirements of paragraph (f)(1)(ii) of this section, the owner or operator shall manage the carbon as required under (d)(5)(i) and (ii) of this section.

[64 FR 32628, June 17, 1999, as amended at 66 FR 34552, June 29, 2001; 68 FR 37353, June 23, 2003; 77 FR 49572, Aug. 16, 2012

Response: This facility will comply with these standards

(b) *Determination of glycol dehydration unit flowrate, benzene emissions, or BTEX emissions.* The procedures of this paragraph shall be used by an owner or operator to determine glycol dehydration unit natural gas flowrate, benzene emissions, or BTEX emissions.

(1) The determination of actual flowrate of natural gas to a glycol dehydration unit shall be made using the procedures of either paragraph (b)(1)(i) or (b)(1)(ii) of this section.

(i) The owner or operator shall install and operate a monitoring instrument that directly measures natural gas flowrate to the glycol dehydration unit with an accuracy of plus or minus 2 percent or better. The owner or operator shall convert annual natural gas flowrate to a daily average by dividing the annual flowrate by the number of days per year the glycol dehydration unit processed natural gas.

(ii) The owner or operator shall document, to the Administrator's satisfaction, the actual annual average natural gas flowrate to the glycol dehydration unit.

(2) The determination of actual average benzene or BTEX emissions from a glycol dehydration unit shall be made using the procedures of either paragraph (b)(2)(i) or (ii) of this section. Emissions shall be determined either uncontrolled, or with federally enforceable controls in place.

(i) The owner or operator shall determine actual average benzene or BTEX emissions using the model GRI-GLYCalc™, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc™ Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1); or

(ii) The owner or operator shall determine an average mass rate of benzene or BTEX emissions in kilograms per hour through direct measurement using the methods in §63.772(a)(1)(i) or (ii), or an alternative method according to §63.7(f). Annual emissions in kilograms per year shall be determined by multiplying the mass rate by the number of hours the unit is operated per year. This result shall be converted to megagrams per year.

§63.773 Inspection and monitoring requirements.

Response: This facility will comply with these standards

(a) This section applies to an owner or operator using air emission controls in accordance with the requirements of §§63.765 and 63.766.

(b) The owner or operator of a control device whose model was tested under §63.772(h) shall develop an inspection and maintenance plan for each control device. At a minimum, the plan shall contain the control device manufacturer's recommendations for ensuring proper operation of the device. Semi-annual inspections shall be conducted for each control device with maintenance and replacement of control device components made in accordance with the plan.

(c) *Cover and closed-vent system inspection and monitoring requirements.* (1) For each closed-vent system or cover required to comply with this section, the owner or operator shall comply with the requirements of paragraphs (c) (2) through (7) of this section.

(2) Except as provided in paragraphs (c)(5) and (6) of this section, each closed-vent system shall be inspected according to the procedures and schedule specified in paragraphs (c)(2)(i) and (ii) of this section, each cover shall be inspected according to the procedures and schedule specified in paragraph (c)(2)(iii) of this section, and each bypass device shall be inspected according to the procedures of paragraph (c)(2)(iv) of this section.

(i) For each closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange), the owner or operator shall:

(A) Conduct an initial inspection according to the procedures specified in §63.772(c) to demonstrate that the closed-vent system operates with no detectable emissions. Inspection results shall be submitted with the Notification of Compliance Status Report as specified in §63.775(d)(1) or (2).

(B) Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in piping; loose connections; or broken or missing caps or other closure devices. The owner or operator shall monitor a component or connection using the procedures in §63.772(c) to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced or the connection is unsealed. Inspection results shall be submitted in the Periodic Report as specified in §63.775(e)(2)(iii).

(ii) For closed-vent system components other than those specified in paragraph (c)(2)(i) of this section, the owner or operator shall:

(A) Conduct an initial inspection according to the procedures specified in §63.772(c) to demonstrate that the closed-vent system operates with no detectable emissions. Inspection results shall be submitted with the Notification of Compliance Status Report as specified in §63.775(d)(1) or (2).

(B) Conduct annual inspections according to the procedures specified in §63.772(c) to demonstrate that the components or connections operate with no detectable emissions. Inspection results shall be submitted in the Periodic Report as specified in §63.775(e)(2)(iii).

(C) Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork; loose connections; or broken or missing caps or other closure devices. Inspection results shall be submitted in the Periodic Report as specified in §63.775(e)(2)(iii).

(iii) For each cover, the owner or operator shall:

(A) Conduct visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover, or between the cover and the separator wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices. In the case where the storage vessel is buried partially or entirely underground, inspection is required only for those portions of the cover that extend to or above the ground surface, and those connections that are on such portions of the cover (e.g., fill ports, access hatches, gauge wells, etc.) and can be opened to the atmosphere.

(B) The inspections specified in paragraph (c)(2)(iii)(A) of this section shall be conducted initially, following the installation of the cover. Inspection results shall be submitted with the Notification of Compliance Status Report as specified in §63.775(d)(12). Thereafter, the owner or operator shall perform the inspection at least once every calendar year, except as provided in paragraphs (c)(5) and (6) of this section. Annual inspection results shall be submitted in the Periodic Report as specified in §63.775(e)(2)(iii).

(iv) For each bypass device, except as provided for in §63.771(c)(3)(ii), the owner or operator shall either:

(A) At the inlet to the bypass device that could divert the steam away from the control device to the atmosphere, set the flow indicator to take a reading at least once every 15 minutes; or

(B) If the bypass device valve installed at the inlet to the bypass device is secured in the non-diverting position using a car-seal or a lock-and-key type configuration, visually inspect the seal or closure mechanism at least once every month to verify that the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass device.

(3) In the event that a leak or defect is detected, the owner or operator shall repair the leak or defect as soon as practicable, except as provided in paragraph (c)(4) of this section.

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

(ii) Repair shall be completed no later than 15 calendar days after the leak is detected.

(4) Delay of repair of a closed-vent system or cover for which leaks or defects have been detected is allowed if the repair is technically infeasible without a shutdown, as defined in §63.761, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next shutdown.

(5) Any parts of the closed-vent system or cover that are designated, as described in paragraphs (c)(5) (i) and (ii) of this section, as unsafe to inspect are exempt from the inspection requirements of paragraphs (c)(2)(i), (ii), and (iii) of this section if:

(i) The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraphs (c)(2)(i), (ii), or (iii) of this section; and

(ii) The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

(6) Any parts of the closed-vent system or cover that are designated, as described in paragraphs (c)(6) (i) and (ii) of this section, as difficult to inspect are exempt from the inspection requirements of paragraphs (c)(2)(i), (ii), and (iii) of this section if:

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

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

(7) Records shall be maintained as specified in §63.774(b)(5) through (8).

(d) *Control device monitoring requirements.* (1) For each control device, except as provided for in paragraph (d)(2) of this section, the owner or operator shall install and operate a continuous parameter monitoring system in accordance with the requirements of paragraphs (d)(3) through (7) of this section. Owners or operators that install and operate a flare in accordance with §63.771(d)(1)(iii) or (f)(1)(iii) are exempt from the requirements of paragraphs (d)(4) and (5) of this section. The continuous monitoring system shall be designed and operated so that a determination can be made on whether the control device is achieving the applicable performance requirements of §63.771(d), (e)(3), or (f)(1). Each continuous parameter monitoring system shall meet the following specifications and requirements:

(i) Each continuous parameter monitoring system shall measure data values at least once every hour and record either:

(A) Each measured data value; or

(B) Each block average value for each 1-hour period or shorter periods calculated from all measured data values during each period. If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the hourly (or shorter period) block average instead of all measured values.

(ii) A site-specific monitoring plan must be prepared that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraph (d) of this section and in §63.8(d). Each CPMS must be installed, calibrated, operated, and maintained in accordance with the procedures in your approved site-specific monitoring plan. Using the process described in §63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs (d)(1)(ii)(A) through (E) of this section in your site-specific monitoring plan.

(A) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;

(B) Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements;

(C) Equipment performance checks, system accuracy audits, or other audit procedures;

(D) Ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1) and (3); and

(E) Ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i).

(iii) The owner or operator must conduct the CPMS equipment performance checks, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least once every 12 months.

(iv) The owner or operator must conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan.

(2) An owner or operator is exempt from the monitoring requirements specified in paragraphs (d)(3) through (7) of this section for the following types of control devices:

(i) Except for control devices for small glycol dehydration units, a boiler or process heater in which all vent streams are introduced with the primary fuel or is used as the primary fuel; or

(ii) Except for control devices for small glycol dehydration units, a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts.

(3) The owner or operator shall install, calibrate, operate, and maintain a device equipped with a continuous recorder to measure the values of operating parameters appropriate for the control device as specified in either paragraph (d)(3)(i), (d)(3)(ii), or (d)(3)(iii) of this section.

(i) A continuous monitoring system that measures the following operating parameters as applicable:

(A) For a thermal vapor incinerator that demonstrates during the performance test conducted under §63.772(e) that the combustion zone temperature is an accurate indicator of performance, a temperature monitoring device equipped with a continuous recorder. The monitoring device shall have a minimum accuracy of ±2 percent of the temperature being monitored in °C, or ±2.5 °C, whichever value is greater. The temperature sensor shall be installed at a location representative of the combustion zone temperature.

(B) For a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature at two locations and have a minimum accuracy of ±2 percent of the temperature being monitored in °C, or ±2.5 °C, whichever value is greater. One temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed outlet.

(C) For a flare, a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.

(D) For a boiler or process heater, a temperature monitoring device equipped with a continuous recorder. The temperature monitoring device shall have a minimum accuracy of ±2 percent of the temperature being monitored in °C, or ±2.5 °C, whichever value is greater. The temperature sensor shall be installed at a location representative of the combustion zone temperature.

(E) For a condenser, a temperature monitoring device equipped with a continuous recorder. The temperature monitoring device shall have a minimum accuracy of ±2 percent of the temperature being

monitored in °C, or ±2.5 °C, whichever value is greater. The temperature sensor shall be installed at a location in the exhaust vent stream from the condenser.

(F) For a regenerative-type carbon adsorption system:

(*1*) A continuous parameter monitoring system to measure and record the average total regeneration stream mass flow or volumetric flow during each carbon bed regeneration cycle. The integrating regenerating stream flow monitoring device must have an accuracy of ±10 percent; and

(*2*) A continuous parameter monitoring system to measure and record the average carbon bed temperature for the duration of the carbon bed steaming cycle and to measure the actual carbon bed temperature after regeneration and within 15 minutes of completing the cooling cycle. The temperature monitoring device shall have a minimum accuracy of ±2 percent of the temperature being monitored in °C, or ±2.5 °C, whichever value is greater.

(G) For a nonregenerative-type carbon adsorption system, the owner or operator shall monitor the design carbon replacement interval established using a performance test performed in accordance with §63.772(e)(3) and shall be based on the total carbon working capacity of the control device and source operating schedule.

(H) For a control device model whose model is tested under §63.772(h):

(*1*) The owner or operator shall determine actual average inlet waste gas flowrate using the model GRI-GLYCalc™, Version 3.0 or higher, ProMax, or AspenTech HYSYS. Inputs to the models shall be representative of actual operating conditions of the controlled unit. The determination shall be performed to coincide with the visible emissions test under §63.772(i)(3);

(*2*) A heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.

(ii) A continuous monitoring system that measures the concentration level of organic compounds in the exhaust vent stream from the control device using an organic monitoring device equipped with a continuous recorder. The monitor must meet the requirements of Performance Specification 8 or 9 of appendix B of 40 CFR part 60 and must be installed, calibrated, and maintained according to the manufacturer's specifications.

(iii) A continuous monitoring system that measures alternative operating parameters other than those specified in paragraph (d)(3)(i) or (d)(3)(ii) of this section upon approval of the Administrator as specified in §63.8(f)(1) through (5).

(4) Using the data recorded by the monitoring system, except for inlet gas flowrate, the owner or operator must calculate the daily average value for each monitored operating parameter for each operating day. If the emissions unit operation is continuous, the operating day is a 24-hour period. If the emissions unit operation is not continuous, the operating day is the total number of hours of control device operation per 24-hour period. Valid data points must be available for 75 percent of the operating hours in an operating day to compute the daily average.

(5) For each operating parameter monitor installed in accordance with the requirements of paragraph (d)(3) of this section, the owner or operator shall comply with paragraph (d)(5)(i) of this section for all

control devices, and when condensers are installed, the owner or operator shall also comply with paragraph (d)(5)(ii) of this section.

(i) The owner or operator shall establish a minimum operating parameter value or a maximum operating parameter value, as appropriate for the control device, to define the conditions at which the control device must be operated to continuously achieve the applicable performance requirements of §63.771(d)(1), (e)(3)(ii), or (f)(1). Each minimum or maximum operating parameter value shall be established as follows:

(A) If the owner or operator conducts performance tests in accordance with the requirements of §63.772(e)(3) to demonstrate that the control device achieves the applicable performance requirements specified in §63.771(d)(1), (e)(3)(ii) or (f)(1), then the minimum operating parameter value or the maximum operating parameter value shall be established based on values measured during the performance test and supplemented, as necessary, by a condenser design analysis or control device manufacturer recommendations or a combination of both.

(B) If the owner or operator uses a condenser design analysis in accordance with the requirements of §63.772(e)(4) to demonstrate that the control device achieves the applicable performance requirements specified in §63.771(d)(1), (e)(3)(ii), or (f)(1), then the minimum operating parameter value or the maximum operating parameter value shall be established based on the condenser design analysis and may be supplemented by the condenser manufacturer's recommendations.

(C) If the owner or operator operates a control device where the performance test requirement was met under §63.772(h) to demonstrate that the control device achieves the applicable performance requirements specified in §63.771(d)(1), (e)(3)(ii), or (f)(1), then the maximum inlet gas flowrate shall be established based on the performance test and supplemented, as necessary, by the manufacturer recommendations.

(ii) The owner or operator shall establish a condenser performance curve showing the relationship between condenser outlet temperature and condenser control efficiency. The curve shall be established as follows:

(A) If the owner or operator conducts a performance test in accordance with the requirements of §63.772(e)(3) to demonstrate that the condenser achieves the applicable performance requirements in §63.771(d)(1), (e)(3)(ii), or (f)(1), then the condenser performance curve shall be based on values measured during the performance test and supplemented as necessary by control device design analysis, or control device manufacturer's recommendations, or a combination of both.

(B) If the owner or operator uses a control device design analysis in accordance with the requirements of §63.772(e)(4)(i) to demonstrate that the condenser achieves the applicable performance requirements specified in §63.771(d)(1), (e)(3)(ii), or (f)(1), then the condenser performance curve shall be based on the condenser design analysis and may be supplemented by the control device manufacturer's recommendations.

(C) As an alternative to paragraph (d)(5)(ii)(B) of this section, the owner or operator may elect to use the procedures documented in the GRI report entitled, "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1) as inputs for the model GRI-GLYCalc™, Version 3.0 or higher, to generate a condenser performance curve.

(6) An excursion for a given control device is determined to have occurred when the monitoring data or lack of monitoring data result in any one of the criteria specified in paragraphs (d)(6)(i) through (vi) of this section being met. When multiple operating parameters are monitored for the same control device and during the same operating day and more than one of these operating parameters meets an excursion criterion specified in paragraphs (d)(6)(i) through (vi) of this section, then a single excursion is determined to have occurred for the control device for that operating day.

(i) An excursion occurs when the daily average value of a monitored operating parameter is less than the minimum operating parameter limit (or, if applicable, greater than the maximum operating parameter limit) established for the operating parameter in accordance with the requirements of paragraph (d)(5)(i) of this section.

(ii) For sources meeting §63.771(d)(1)(ii), an excursion occurs when the 365-day average condenser efficiency calculated according to the requirements specified in §63.772(g)(2)(iii) is less than 95.0 percent. For sources meeting §63.771(f)(1), an excursion occurs when the 365-day average condenser efficiency calculated according to the requirements specified in §63.772(g)(2)(iii) is less than 95.0 percent of the identified 365-day required percent reduction.

(iii) For sources meeting §63.771(d)(1)(ii), if an owner or operator has less than 365 days of data, an excursion occurs when the average condenser efficiency calculated according to the procedures specified in §63.772(g)(2)(iii)(A) or (B) is less than 90.0 percent. For sources meeting §63.771(f)(1), an excursion occurs when the 365-day average condenser efficiency calculated according to the requirements specified in §63.772(g)(2)(iii) is less than the identified 365-day required percent reduction.

(iv) An excursion occurs when the monitoring data are not available for at least 75 percent of the operating hours in a day.

(v) If the closed-vent system contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device, an excursion occurs when:

(A) For each bypass line subject to §63.771(c)(3)(i)(A) the flow indicator indicates that flow has been detected and that the stream has been diverted away from the control device to the atmosphere.

(B) For each bypass line subject to §63.771(c)(3)(i)(B), if the seal or closure mechanism has been broken, the bypass line valve position has changed, the key for the lock-and-key type lock has been checked out, or the car-seal has broken.

(vi) For control device whose model is tested under §63.772(h) an excursion occurs when:

(A) The inlet gas flowrate exceeds the maximum established during the test conducted under §63.772(h).

(B) Failure of the quarterly visible emissions test conducted under §63.772(i)(3) occurs.

(7) For each excursion, the owner or operator shall be deemed to have failed to have applied control in a manner that achieves the required operating parameter limits. Failure to achieve the required operating parameter limits is a violation of this standard.

[64 FR 32628, June 17, 1999, as amended at 66 FR 34553, June 29, 2001; 68 FR 37353, June 23, 2003; 71 FR 20457, Apr. 20, 2006; 77 FR 49578, Aug. 16, 2012]

§63.774 Recordkeeping requirements.

Response: This facility will comply with these standards

(a) The recordkeeping provisions of 40 CFR part 63, subpart A, that apply and those that do not apply to owners and operators of sources subject to this subpart are listed in Table 2 of this subpart.

(b) Except as specified in paragraphs (c), (d), and (f) of this section, each owner or operator of a facility subject to this subpart shall maintain the records specified in paragraphs (b)(1) through (11) of this section:

(1) The owner or operator of an affected source subject to the provisions of this subpart shall maintain files of all information (including all reports and notifications) required by this subpart. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or period.

(i) All applicable records shall be maintained in such a manner that they can be readily accessed.

(ii) The most recent 12 months of records shall be retained on site or shall be accessible from a central location by computer or other means that provides access within 2 hours after a request.

(iii) The remaining 4 years of records may be retained offsite.

(iv) Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.

(2) Records specified in §63.10(b)(2);

(3) Records specified in §63.10(c) for each monitoring system operated by the owner or operator in accordance with the requirements of §63.773(d). Notwithstanding the requirements of §63.10(c), monitoring data recorded during periods identified in paragraphs (b)(3)(i) through (iv) of this section shall not be included in any average or percent leak rate computed under this subpart. Records shall be kept of the times and durations of all such periods and any other periods during process or control device operation when monitors are not operating or failed to collect required data.

(i) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments;

(ii) [Reserved]

(iii) Periods of non-operation resulting in cessation of the emissions to which the monitoring applies; and

(iv) Excursions due to invalid data as defined in §63.773(d)(6)(iv).

(4) Each owner or operator using a control device to comply with §63.764 of this subpart shall keep the following records up-to-date and readily accessible:

(i) Continuous records of the equipment operating parameters specified to be monitored under §63.773(d) or specified by the Administrator in accordance with §63.773(d)(3)(iii). For flares, the hourly records and records of pilot flame outages specified in paragraph (e) of this section shall be maintained in place of continuous records.

(ii) Records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in §63.773(d)(4) of this subpart, except as specified in paragraphs (b)(4)(ii)(A) through (C) of this section.

(A) For flares, the records required in paragraph (e) of this section.

(B) For condensers installed to comply with §63.765, records of the annual 365-day rolling average condenser efficiency determined under §63.772(g) shall be kept in addition to the daily averages.

(C) For a control device whose model is tested under §63.772(h), the records required in paragraph (h) of this section.

(iii) Hourly records of the times and durations of all periods when the vent stream is diverted from the control device or the device is not operating.

(iv) Where a seal or closure mechanism is used to comply with §63.771(c)(3)(i)(B), hourly records of flow are not required. In such cases, the owner or operator shall record that the monthly visual inspection of the seals or closure mechanism has been done, and shall record the duration of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has broken.

(5) Records identifying all parts of the cover or closed-vent system that are designated as unsafe to inspect in accordance with §63.773(c)(5), an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.

(6) Records identifying all parts of the cover or closed-vent system that are designated as difficult to inspect in accordance with §63.773(c)(6), an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.

(7) For each inspection conducted in accordance with §63.773(c), during which a leak or defect is detected, a record of the information specified in paragraphs (b)(7)(i) through (b)(7)(viii) of this section.

(i) The instrument identification numbers, operator name or initials, and identification of the equipment.

(ii) The date the leak or defect was detected and the date of the first attempt to repair the leak or defect.

(iii) Maximum instrument reading measured by the method specified in §63.772(c) after the leak or defect is successfully repaired or determined to be nonrepairable.

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

(v) The name, initials, or other form of identification of the owner or operator (or designee) whose decision it was that repair could not be effected without a shutdown.

(vi) The expected date of successful repair of the leak or defect if a leak or defect is not repaired within 15 calendar days.

(vii) Dates of shutdowns that occur while the equipment is unrepaired.

(viii) The date of successful repair of the leak or defect.

(ix) Records identifying the carbon replacement schedule under §63.771(d)(5) and records of each carbon replacement.

(8) For each inspection conducted in accordance with §63.773(c) during which no leaks or defects are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks or defects were detected.

(9) Records identifying ancillary equipment and compressors that are subject to and controlled under the provisions of 40 CFR part 60, subpart KKK; 40 CFR part 61, subpart V; or 40 CFR part 63, subpart H.

(10) Records of glycol dehydration unit baseline operations calculated as required under §63.771(e)(1).

(11) Records required in §63.771(e)(3)(i) documenting that the facility continues to operate under the conditions specified in §63.771(e)(2).

(c) An owner or operator that elects to comply with the benzene emission limit specified in §63.765(b)(1)(ii) shall document, to the Administrator's satisfaction, the following items:

(1) The method used for achieving compliance and the basis for using this compliance method; and

(2) The method used for demonstrating compliance with 0.90 megagrams per year of benzene.

(3) Any information necessary to demonstrate compliance as required in the methods specified in paragraphs (c)(1) and (c)(2) of this section.

(d)(1) An owner or operator of a glycol dehydration unit that meets the exemption criteria in §63.764(e)(1)(i) or §63.764(e)(1)(ii) shall maintain the records specified in paragraph (d)(1)(i) or paragraph (d)(1)(ii) of this section, as appropriate, for that glycol dehydration unit.

(i) The actual annual average natural gas throughput (in terms of natural gas flowrate to the glycol dehydration unit per day) as determined in accordance with §63.772(b)(1), or

(ii) The actual average benzene emissions (in terms of benzene emissions per year) as determined in accordance with §63.772(b)(2).

(2) An owner or operator that is exempt from the control requirements under §63.764(e)(2) of this subpart shall maintain the following records:

(i) Information and data used to demonstrate that a piece of ancillary equipment or a compressor is not in VHAP service or not in wet gas service shall be recorded in a log that is kept in a readily accessible location.

(ii) Identification and location of ancillary equipment or compressors, located at a natural gas processing plant subject to this subpart, that is in VHAP service less than 300 hours per year.

(e) Record the following when using a flare to comply with §63.771(d):

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

(2) All visible emission readings, heat content determinations, flowrate measurements, and exit velocity determinations made during the compliance determination required by §63.772(e)(2); and

(3) All hourly records and other recorded periods when the pilot flame is absent.

(f) The owner or operator of an area source not located within a UA plus offset and UC boundary must keep a record of the calculation used to determine the optimum glycol circulation rate in accordance with §63.764(d)(2)(i) or §63.764(d)(2)(ii), as applicable.

(g) The owner or operator of an affected source subject to this subpart shall maintain records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment) or the air pollution control equipment and monitoring equipment. The owner or operator shall maintain records of actions taken during periods of malfunction to minimize emissions in accordance with §63.764(j), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(h) Record the following when using a control device whose model is tested under §63.772(h) to comply with §63.771(d), (e)(3)(ii), and (f)(1):

(1) All visible emission readings and flowrate calculations made during the compliance determination required by §63.772(i); and

(2) All hourly records and other recorded periods when the pilot flame is absent.

(i) The date the semi-annual maintenance inspection required under §63.773(b) is performed. Include a list of any modifications or repairs made to the control device during the inspection and other maintenance performed such as cleaning of the fuel nozzles.

[64 FR 32628, June 17, 1999, as amended at 66 FR 34554, June 29, 2001; 72 FR 39, Jan. 3, 2007; 77 FR 49579, Aug. 16, 2012]

§63.775 Reporting requirements.

Response: This facility will comply with these standards

(a) The reporting provisions of subpart A of this part, that apply and those that do not apply to owners and operators of sources subject to this subpart are listed in Table 2 of this subpart.

(b) Each owner or operator of a major source subject to this subpart shall submit the information listed in paragraphs (b)(1) through (b)(6) of this section, except as provided in paragraphs (b)(7) and (b)(8) of this section.

(1) The initial notifications required for existing affected sources under §63.9(b)(2) shall be submitted as provided in paragraphs (b)(1)(i) and (ii) of this section.

(i) Except as otherwise provided in paragraph (b)(1)(ii) of this section, the initial notifications shall be submitted by 1 year after an affected source becomes subject to the provisions of this subpart or by June 17, 2000, whichever is later. Affected sources that are major sources on or before June 17, 2000, and plan to be area sources by June 17, 2002, shall include in this notification a brief, nonbinding description of a schedule for the action(s) that are planned to achieve area source status.

(ii) An affected source identified under §63.760(f)(7) or (9) shall submit an initial notification required for existing affected sources under §63.9(b)(2) within 1 year after the affected source becomes subject to the provisions of this subpart or by October 15, 2013, whichever is later. An affected source identified under §63.760(f)(7) or (9) that plans to be an area source by October 15, 2015, shall include in this notification a brief, nonbinding description of a schedule for the action(s) that are planned to achieve area source status.

(2) The date of the performance evaluation as specified in §63.8(e)(2), required only if the owner or operator is required by the Administrator to conduct a performance evaluation for a continuous monitoring system. A separate notification of the performance evaluation is not required if it is included in the initial notification submitted in accordance with paragraph (b)(1) of this section.

(3) The planned date of a performance test at least 60 days before the test in accordance with §63.7(b). Unless requested by the Administrator, a site-specific test plan is not required by this subpart. If requested by the Administrator, the owner or operator must also submit the site-specific test plan required by §63.7(c) with the notification of the performance test. A separate notification of the performance test is not required if it is included in the initial notification submitted in accordance with paragraph (b)(1) of this section.

(4) A Notification of Compliance Status report as described in paragraph (d) of this section;

(5) Periodic Reports as described in paragraph (e) of this section; and

(6) If there was a malfunction during the reporting period, the Periodic Report specified in paragraph (e) of this section shall 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 §63.764(j), including actions taken to correct a malfunction.

(7) [Reserved]

(8) Each owner or operator of ancillary equipment and compressors subject to this subpart that are exempt from the control requirements for equipment leaks in §63.769, are exempt from all reporting requirements for major sources in this subpart, for that equipment.

(c) Except as provided in paragraph (c)(8), each owner or operator of an area source subject to this subpart shall submit the information listed in paragraph (c)(1) of this section. If the source is located within a UA plus offset and UC boundary, the owner or operator shall also submit the information listed in paragraphs (c)(2) through (6) of this section. If the source is not located within any UA plus offset and UC boundaries, the owner or operator shall also submit the information listed within paragraph (c)(7).

(1) The initial notifications required under §63.9(b)(2) not later than January 3, 2008. In addition to submitting your initial notification to the addressees specified under §63.9(a), you must also submit a copy of the initial notification to the EPA's Office of Air Quality Planning and Standards. Send your notification via email to *Oil and Gas Sector@epa.gov* or via U.S. mail or other mail delivery service to U.S. EPA, Sector Policies and Programs Division/Fuels and Incineration Group (E143-01), Attn: Oil and Gas Project Leader, Research Triangle Park, NC 27711.

(2) The date of the performance evaluation as specified in §63.8(e)(2) if an owner or operator is required by the Administrator to conduct a performance evaluation for a continuous monitoring system.

(3) The planned date of a performance test at least 60 days before the test in accordance with §63.7(b). Unless requested by the Administrator, a site-specific test plan is not required by this subpart. If requested by the Administrator, the owner or operator must submit the site-specific test plan required by §63.7(c) with the notification of the performance test. A separate notification of the performance test is not required if it is included in the initial notification submitted in accordance with paragraph (c)(1) of this section.

(4) A Notification of Compliance Status as described in paragraph (d) of this section;

(5) Periodic reports as described in paragraph (e)(3) of this section; and

(6) If there was a malfunction during the reporting period, the Periodic Report specified in paragraph (e) of this section shall 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 §63.764(j), including actions taken to correct a malfunction.

(7) The information listed in paragraphs (c)(1)(i) through (v) of this section. This information shall be submitted with the initial notification.

(i) Documentation of the source's location relative to the nearest UA plus offset and UC boundaries. This information shall include the latitude and longitude of the affected source; whether the source is located in an urban cluster with 10,000 people or more; the distance in miles to the nearest urbanized area boundary if the source is not located in an urban cluster with 10,000 people or more; and the name of the nearest urban cluster with 10,000 people or more and nearest urbanized area.

(ii) Calculation of the optimum glycol circulation rate determined in accordance with §63.764(d)(2)(i).

(iii) If applicable, documentation of the alternate glycol circulation rate calculated using GRI-GLYCalc™, Version 3.0 or higher and documentation stating why the TEG dehydration unit must operate using the alternate glycol circulation rate.

(iv) The name of the manufacturer and the model number of the glycol circulation pump(s) in operation.

(v) Statement by a responsible official, with that official's name, title, and signature, certifying that the facility will always operate the glycol dehydration unit using the optimum circulation rate determined in accordance with §63.764(d)(2)(i) or §63.764(d)(2)(ii), as applicable.

(8) An owner or operator of a TEG dehydration unit located at an area source that meets the criteria in §63.764(e)(1)(i) or §63.764(e)(1)(ii) is exempt from the reporting requirements for area sources in paragraphs (c)(1) through (7) of this section, for that unit.

(d) Each owner or operator of a source subject to this subpart shall submit a Notification of Compliance Status Report as required under §63.9(h) within 180 days after the compliance date specified in §63.760(f). In addition to the information required under §63.9(h), the Notification of Compliance Status Report shall include the information specified in paragraphs (d)(1) through (12) of this section. This information may be submitted in an operating permit application, in an amendment to an operating permit application, in a separate submittal, or in any combination of the three. If all of the information required under this paragraph has been submitted at any time prior to 180 days after the applicable compliance dates specified in §63.760(f), a separate Notification of Compliance Status Report is not required. If an owner or operator submits the information specified in paragraphs (d)(1) through (12) of this section at different times, and/or different submittals, subsequent submittals may refer to previous submittals instead of duplicating and resubmitting the previously submitted information.

(1) If a closed-vent system and a control device other than a flare are used to comply with §63.764, the owner or operator shall submit the information in paragraph (d)(1)(iii) of this section and the information in either paragraph (d)(1)(i) or (ii) of this section.

(i) The condenser design analysis documentation specified in §63.772(e)(4) of this subpart, if the owner or operator elects to prepare a design analysis.

(ii) If the owner or operator is required to conduct a performance test, the performance test results including the information specified in paragraphs (d)(1)(ii)(A) and (B) of this section. Results of a performance test conducted prior to the compliance date of this subpart can be used provided that the test was conducted using the methods specified in §63.772(e)(3) and that the test conditions are representative of current operating conditions. If the owner or operator operates a combustion control device model tested under §63.772(h), an electronic copy of the performance test results shall be submitted via email to *Oil_and_Gas_PT@EPA.GOV* unless the test results for that model of combustion control device are posted at the following Web site: *epa.gov/airquality/oilandgas/*.

(A) The percent reduction of HAP or TOC, or the outlet concentration of HAP or TOC (parts per million by volume on a dry basis), determined as specified in §63.772(e)(3) of this subpart; and

(B) The value of the monitored parameters specified in §773(d) of this subpart, or a site-specific parameter approved by the permitting agency, averaged over the full period of the performance test.

(iii) The results of the closed-vent system initial inspections performed according to the requirements in §63.773(c)(2)(i) and (ii).

(2) If a closed-vent system and a flare are used to comply with §63.764, the owner or operator shall submit performance test results including the information in paragraphs (d)(2)(i) and (ii) of this section. The owner or operator shall also submit the information in paragraph (d)(2)(iii) of this section.

(i) All visible emission readings, heat content determinations, flowrate measurements, and exit velocity determinations made during the compliance determination required by §63.772(e)(2) of this subpart.

(ii) A statement of whether a flame was present at the pilot light over the full period of the compliance determination.

(iii) The results of the closed-vent system initial inspections performed according to the requirements in §63.773(c)(2)(i) and (ii).

(3) For each owner or operator subject to the provisions specified in §63.769, the owner or operator shall submit the information required by §61.247(a), except that the initial report required in §61.247(a) shall be submitted as a part of the Notification of Compliance Status Report required in paragraph (d) of this section. The owner or operator shall also submit the information specified in paragraphs (d)(3) (i) and (ii) of this section.

(i) The number of each equipment (e.g., valves, pumps, etc.) excluding equipment in vacuum service, and

(ii) Any change in the information submitted in this paragraph shall be provided to the Administrator as a part of subsequent Periodic Reports described in paragraph (e)(2)(iv) of this section.

(4) The owner or operator shall submit one complete test report for each test method used for a particular source.

(i) For additional tests performed using the same test method, the results specified in paragraph (d)(1)(ii) of this section shall be submitted, but a complete test report is not required.

(ii) A complete test report shall include a sampling site description, description of sampling and analysis procedures and any modifications to standard procedures, quality assurance procedures, record of operating conditions during the test, record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, documentation of calculations, and any other information required by the test method.

(5) For each control device other than a flare used to meet the requirements of §63.764, the owner or operator shall submit the information specified in paragraphs (d)(5) (i) through (iii) of this section for each operating parameter required to be monitored in accordance with the requirements of §63.773(d).

(i) The minimum operating parameter value or maximum operating parameter value, as appropriate for the control device, established by the owner or operator to define the conditions at which the control device must be operated to continuously achieve the applicable performance requirements of §63.771(d)(1) or (e)(3)(ii).

(ii) An explanation of the rationale for why the owner or operator selected each of the operating parameter values established in §63.773(d)(5). This explanation shall include any data and calculations used to develop the value and a description of why the chosen value indicates that the control device is operating in accordance with the applicable requirements of §63.771(d)(1), (e)(3)(ii) or (f)(1).

(iii) A definition of the source's operating day for purposes of determining daily average values of monitored parameters. The definition shall specify the times at which an operating day begins and ends.

(iv) For each carbon adsorber, the predetermined carbon replacement schedule as required in §63.771(d)(5)(i).

(6) Results of any continuous monitoring system performance evaluations shall be included in the Notification of Compliance Status Report.

(7) After a title V permit has been issued to the owner or operator of an affected source, the owner or operator of such source shall comply with all requirements for compliance status reports contained in the source's title V permit, including reports required under this subpart. After a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this subpart, the owner or operator of such source shall submit the notification of compliance status to the appropriate permitting authority following completion of the relevant compliance demonstration activity specified in this subpart.

(8) The owner or operator that elects to comply with the requirements of §63.765(b)(1)(ii) shall submit the records required under §63.774(c).

(9) The owner or operator shall submit the analysis performed under §63.760(a)(1).

(10) The owner or operator shall submit a statement as to whether the source has complied with the requirements of this subpart.

(11) The owner or operator shall submit the analysis prepared under §63.771(e)(2) to demonstrate the conditions by which the facility will be operated to achieve the HAP emission reduction of 95.0 percent, or the BTEX limit in §63.765(b)(1)(iii), through process modifications or a combination of process modifications and one or more control devices.

(12) If a cover is installed to comply with §63.764, the results of the initial inspection performed according to the requirements specified in §63.773(c)(2)(iii).

(13) If the owner or operator installs a combustion control device model tested under the procedures in §63.772(h), the data listed under §63.772(h)(8).

(14) For each combustion control device model tested under §63.772(h), the information listed in paragraphs (d)(14)(i) through (vi) of this section.

(i) Name, address and telephone number of the control device manufacturer.

(ii) Control device model number.

(iii) Control device serial number.

(iv) Date the model of control device was tested by the manufacturer.

(v) Manufacturer's HAP destruction efficiency rating.

(vi) Control device operating parameters, maximum allowable inlet gas flowrate.

(e) *Periodic Reports.* An owner or operator of a major source shall prepare Periodic Reports in accordance with paragraphs (e) (1) and (2) of this section and submit them to the Administrator. An owner or operator of an area source shall prepare Periodic Reports in accordance with paragraph (e)(3) of this section and submit them to the Administrator.

(1) An owner or operator shall submit Periodic Reports semiannually beginning 60 calendar days after the end of the applicable reporting period. The first report shall be submitted no later than 240 days after the date the Notification of Compliance Status Report is due and shall cover the 6-month period beginning on the date the Notification of Compliance Status Report is due.

(2) The owner or operator shall include the information specified in paragraphs (e)(2)(i) through (ix) of this section, as applicable.

(i) The information required under §63.10(e)(3). For the purposes of this subpart and the information required under §63.10(e)(3), excursions (as defined in §63.773(d)(6)) shall be considered excess emissions.

(ii) A description of all excursions as defined in §63.773(d)(6) of this subpart that have occurred during the 6-month reporting period.

(A) For each excursion caused when the daily average value of a monitored operating parameter is less than the minimum operating parameter limit (or, if applicable, greater than the maximum operating parameter limit), as specified in §63.773(d)(6)(i), the report must include the daily average values of the monitored parameter, the applicable operating parameter limit, and the date and duration of the period that the excursion occurred.

(B) For each excursion caused when the 365-day average condenser control efficiency is less than the value specified in §63.773(d)(6)(ii), the report must include the 365-day average values of the condenser control efficiency, and the date and duration of the period that the excursion occurred.

(C) For each excursion caused when condenser control efficiency is less than the value specified in §63.773(d)(6)(iii), the report must include the average values of the condenser control efficiency, and the date and duration of the period that the excursion occurred.

(D) For each excursion caused by the lack of monitoring data, as specified in §63.773(d)(6)(iv), the report must include the date and duration of the period when the monitoring data were not collected and the reason why the data were not collected.

(E) For each excursion caused when the maximum inlet gas flowrate identified under §63.772(h) is exceeded, the report must include the values of the inlet gas identified and the date and duration of the period that the excursion occurred.

(F) For each excursion caused when visible emissions determined under §63.772(i) exceed the maximum allowable duration, the report must include the date and duration of the period that the excursion occurred, repairs affected to the unit, and date the unit was returned to service.

(iii) For each inspection conducted in accordance with §63.773(c) during which a leak or defect is detected, the records specified in §63.774(b)(7) must be included in the next Periodic Report.

(iv) For each owner or operator subject to the provisions specified in §63.769, the owner or operator shall comply with the reporting requirements specified in 40 CFR 61.247, except that the Periodic Reports shall be submitted on the schedule specified in paragraph (e)(1) of this section.

(v) For each closed-vent system with a bypass line subject to §63.771(c)(3)(i)(A), records required under §63.774(b)(4)(iii) of all periods when the vent stream is diverted from the control device through a bypass line. For each closed-vent system with a bypass line subject to §63.771(c)(3)(i)(B), records required under §63.774(b)(4)(iv) of all periods in which the seal mechanism is broken, the bypass valve position has changed, or the key to unlock the bypass line valve was checked out.

(vi) If an owner or operator elects to comply with §63.765(b)(1)(ii), the records required under §63.774(c)(3).

(vii) The information in paragraphs (e)(2)(vii) (A) and (B) of this section shall be stated in the Periodic Report, when applicable.

(A) No excursions.

(B) No continuous monitoring system has been inoperative, out of control, repaired, or adjusted.

(viii) Any change in compliance methods as specified in §63.772(f).

(ix) If the owner or operator elects to comply with §63.765(c)(2), the records required under §63.774(b)(11).

(x) For flares, the records specified in §63.774(e)(3).

(xi) The results of any periodic test as required in §63.772(e)(3) conducted during the reporting period.

(xii) For each carbon adsorber used to meet the control device requirements of §63.771(d)(1), records of each carbon replacement that occurred during the reporting period.

(xiii) For combustion control device inspections conducted in accordance with §63.773(b) the records specified in §63.774(i).

(xiv) Certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(3) An owner or operator of an area source located inside a UA plus offset and UC boundary shall prepare and submit Periodic Reports in accordance with paragraphs (e)(3)(i) through (iii) of this section.

(i) Periodic reports must be submitted on an annual basis. The first reporting period shall cover the period beginning on the date the Notification of Compliance Status Report is due and ending on December 31. The report shall be submitted within 30 days after the end of the reporting period.

(ii) Subsequent reporting periods begin every January 1 and end on December 31. Subsequent reports shall be submitted within 30 days following the end of the reporting period.

(iii) The periodic reports must contain the information included in paragraph (e)(2) of this section.

(f) *Notification of process change.* Whenever a process change is made, or a change in any of the information submitted in the Notification of Compliance Status Report, the owner or operator shall submit a report within 180 days after the process change is made or as a part of the next Periodic Report as required under paragraph (e) of this section, whichever is sooner. The report shall include:

(1) A brief description of the process change;

(2) A description of any modification to standard procedures or quality assurance procedures;

(3) Revisions to any of the information reported in the original Notification of Compliance Status Report under paragraph (d) of this section; and

(4) Information required by the Notification of Compliance Status Report under paragraph (d) of this section for changes involving the addition of processes or equipment.

(g) *Electronic reporting.* (1) Within 60 days after the date of completing each performance test (defined in §63.2) as required by this subpart you must submit the results of the performance tests required by this subpart to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). Performance test data must be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/index.html*). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, you must also submit these reports, including the confidential business information, to the delegated authority in the format specified by the delegated authority.

(2) All reports required by this subpart not subject to the requirements in paragraph (g)(1) of this section must be sent to the Administrator at the appropriate address listed in §63.13. The Administrator or the delegated authority may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy). The Administrator retains the right to require submittal of reports subject to paragraph (g)(1) of this section in paper format.

[64 FR 32628, June 17, 1999, as amended at 66 FR 34554, June 29, 2001; 72 FR 39, Jan. 3, 2007; 77 FR 49580, Aug. 16, 2012]

IDEQ PTC MODELING PROTOCOL AND REPORTS

SECTION 7.0

ALTA MESA SERVICES
ML INVESTMENTS 1-11 WELL SITE FACILITY
MODELING PROTOCOL CHECKLIST

Introduction and Purpose

1. **General overview, facility description, description of area where facility is located:**

   The facility is an oil and gas well site gathering and processing facility for a parcel of land in Payette County, Idaho. The proposed site is located approximately 5 miles east of the city of Payette (see Aerial Photo in Attachment 1). The proposed site is located in an agricultural area with no residences or other critical receptors in the vicinity.

2. **Project overview:**

   Alta Mesa Services, LP (hereinafter "AM") applied for this Permit to Construct (PTC) to allow construction of a facility necessary for the gathering and processing of produced hydrocarbons. Production from this site will flow through separator(s) and lineheater(s) where any free water and natural gas liquids will be collected. Liquids separated for the separators will be sent to onsite tanks for storage where they will be pumped to trucks for disposal. The gas will proceed to a central dehydration unit where the remaining water will be removed from the wet gas stream. The gas will then be compressed with a natural gas engine compressor set to be sent to pipeline and moved to the refrigeration plant approximately 8 miles to the south.

3. **Goals of the air quality impact analysis (i.e., demonstrate compliance for a PTC for a modification, PTC for a new facility, or a Tier II operating permit):**

   The goal of this air quality analysis is to demonstrate compliance with the requirements for a PTC for a new facility.

4. **Applicable regulations and requirements:**

   The PTC application contains a complete review of the applicable air quality regulations and requirements.

5. **Pollutants of concern:**

   See Attachment 2. The proposed new facility will be a source of emissions of the following criteria pollutants: nitrogen dioxide (NO_2), carbon monoxide (CO), particulate matter less than 10 micrometers in aerodynamic diameter (PM_{10}), particulate matter less than 2.5 micrometers in aerodynamic diameter ($PM_{2.5}$), and sulfur dioxide (SO_2). The proposed emission increase totals of all criteria pollutants except NO_2 are either calculated to be less than the 10 percent of the Significant Emission (BRC) Rates defined in 40 CFR 52.21(b)(23) or are below the Level I or Level II modeling thresholds. Air dispersion modeling for NO_2 will be required because the emission increases are not below the BRC threshold or the Level I and Level I modeling thresholds.

A similar modeling applicability assessment was performed for the toxic air pollutants (TAP) proposed to be emitted from the facility (Attachment 3). Since the Caterpillar engine (EP ID: ENG1) is subject to 40 CFR 63 Subpart ZZZZ, the TAP emissions from this engine are considered Federally regulated and are exempt from this TAP review in accordance with Section 210.20 of the Idaho Air Rules. Since the storage tanks are subject to 40 CFR 60 Subpart OOOO, the emissions from these sources are also exempt from TAP modeling review.

The proposed emissions increase totals of all the TAPs from non-exempted sources are compared against the TAP Screening Emission Levels provided in Idaho Air Rules Section 585 and 586. As a result of this comparison (contained in Attachment 3), the emissions of all TAP pollutants are exempt from air dispersion modeling review.

Emissions and Source Data

1. **Description of facility processes and emissions controls affected by the permitting action:**

   A process description is enclosed in Attachment 4.

2. **List of emissions points that will be included in the modeling analyses:**

   The requested emission point table is enclosed in Attachment 5.

3. **Present a table showing current actual/allowable, the future allowable emission rates, and the requested emissions increase:**

   Because this facility is a Greenfield facility, there are no current actual or allowable emission rates. The future allowable emission rates are listed in the emission rate table contained in Attachment 5.

4. **Good engineering practice (GEP) stack-height analysis for any stacks approaching GEP height:**

   All stack release heights used in this modeling are expected to be far below the GEP formula height.

5. **Graphic showing the facility layout: location of sources, buildings, emissions points, and fence lines:**

   The requested graphic is enclosed in Attachment 6.

6. **Description of methods used to calculate or otherwise determine source parameters for each source included in the modeling analyses:**

   All emission release parameters for the stack emission sources will be based on data provided by the vendor or AM.

7. **Methodology for including area and volume sources in the modeling analysis, including justification and calculations of initial dispersion coefficients and release heights:**

   There will not be a requirement to model any area or volume sources in this project.

8. **Methodology for including/excluding sources from the modeling analyses:**

   All emission sources are included in the modeling. There are not any excluded sources.

Air Quality Modeling Methodology

1. **Description of model selection and justification. This may be minimal in cases where the regulatory guideline model is used (AERMOD in most cases):**

   AERMOD will be used in this modeling analysis.

2. **Description of model setup and application**

   a. **Model options (i.e., regulatory default). Describe and provide justification for any non-default settings:**

   This modeling analysis will not use any non-default settings.

   b. **Averaging periods used in the analyses and how emissions rates were calculated for specific averaging periods:**

   The emission allowables for all averaging periods proposed in the PTC are based on maximum hourly emission rates. For example, the proposed annual emission allowable is the product of the maximum hourly emission rate with all the hours of the year. No emission rate averaging is used in the PTC application or will be used in the modeling.

   c. **Land-use analysis in all cases where "urban" is used and in cases where land use is not obviously "rural":**

   The land use in the vicinity of the proposed plant qualifies as A2 and A3 land use types. Rural dispersion parameters will be used in this modeling.

   d. **Methods used to account for building downwash in the analyses:**

   The office and engine houses will be the only building structures on the property. Direction-specific building dimensions and the dominant downwash structure parameters used as input to the model are determined using the BPIP-Prime software, a built-in part of BEEST for Windows. This software incorporates the algorithms of the U.S. EPA approved BPIP-Prime, version 04274. BPIP Prime is designed to incorporate the concepts and procedures expressed in the GEP Technical Support document, the Building Downwash Guidance document, and other related documents.

e. **Treatment of any chemical transformations (e.g., NO to NO_2) accounted for in the analyses:**

No chemical transformations will be required for this modeling analysis.

f. **Any other unique methods or data used:**

No other unique modeling methods or data are planned.

3. **Description of how elevations of sources, buildings, and receptors were determined:**

Terrain elevations for sources, receptors, and buildings will be determined using terrain elevations from the National Elevation Datasets developed by the USGS.

4. **Receptor network**

a. **Description of receptor grids – include methodology for ensuring the maximum concentration will be estimated:**

This modeling study will use regular Cartesian receptor grids consisting of 100 meter receptor spacing anchored on the facility ambient boundary (fence line) extending out 5,000 meters from the property.

b. **Discussion/justification of ambient air boundary, including a description of how the general public will be excluded from areas not considered ambient air:**

The ambient air boundary at the site will be defined by a perimeter fence which will preclude public access.

5. **Meteorological data**

a. **Selection of meteorological databases – justification of appropriateness of meteorological data to area of interest:**

The applicant requests that IDEQ provide appropriate meteorological data.

b. **Meteorological data processing:**

No meteorological data processing will be performed by the applicant since the data will have been processed by IDEQ modeling staff.

c. **Meteorological data analysis (e.g., wind rose):**

No additional meteorological data analysis will be performed since the meteorological data will have been processed by IDEQ modeling staff.

6. **Background concentrations:**

No criteria pollutant modeling will be required. Therefore, background concentrations will not be necessary.

Applicable Regulatory Limits

1. Methodology for evaluation of compliance with standards (i.e., determination of design concentration):

Criteria pollutant modeling will not be necessary.

2. Significant Impact analysis

a. Comparison to SILs:

Criteria pollutant modeling will not be necessary.

b. TAPs analysis:

The maximum average annual benzene concentration predicted by the model will be compared with the Acceptable Ambient Concentration for benzene of 0.12 µg/m3.

3. Cumulative NAAQS impact analysis

a. NAAQS analysis:

A cumulative NAAQS impact analysis will not be necessary.

4. Presentation of results – state how the results of the modeling analysis will be displayed:

The example tables in Appendix E of the State of Idaho Guidelines for Performing Air Quality Impact Analyses will be used to report the results of the modeling analysis.

ATTACHMENT 1

AERIAL PHOTO

BASE MAP INFO:

Aerial Photo dated: 4/29/15

PHOTO EXTRACTED FROM: Google Earth Pro

1" = 1500 FT

Alta Mesa
ML Investments 1-11

Payette County, Idaho

Aerial Photo

ATTACHMENT 2

CRITERIA POLLUTANT MODELING APPLICABILITY EVALUATION

Alta Mesa Services
ML Investments 1-11 Well Site
Criteria Pollutant Modeling Applicability

		Summary of Emissions	Significant Emission Rate (SER)	10% of SER (BRC Threshold)	Are Emissions Below BRC Threshold?	Level I Thresholds	Are Emissions Below Level I Thresholds?	Level II Thresholds	Are Emissions Below Level II Thresholds?	Modeling Required?
NOx	lb/hr	2.8947				0.20	No	2.4	No	Yes
	TPY	12.6789	40	4	No	1.2	No	14	Yes, Exempted	
CO	lb/hr	5.6381				15	Yes			No
	TPY	24.6950	100	10	No					
PM_{10}	lb/hr	0.1123								No
	TPY	0.4919	15	1.5	Yes, Exempted					
$PM_{2.5}$	lb/hr	0.0996				0.054	No	0.63	Yes, Exempted	No
	TPY	0.4362	10	1	No	0.35	No	4.1	Yes, Exempted	
SO_2	lb/hr	0.0139								No
	TPY	0.0608	40	4	Yes, Exempted					

ATTACHMENT 3

TOXIC AIR POLLUTANT MODELING APPLICABILITY EVALUATION

Alta Mesa Services
ML Investments 1-11 Well Site
Idaho Section 585 Toxic Air Pollutants Modeling Applicability

		Summary of Emissions	Summary of Non-NSPS, Non-NESHAP Emissions	Section 585 Screening Emission Level	Are Non-NSPS, Non-NESHAPS Emissions Below Section 585 Screening Emission Level?	Modeling Required?
Acetaldehyde	lb/hr	0.0398	0.0000	3.00E-03	Yes	No
	TPY	0.1743	0.0000			
Benzene	lb/hr	0.0112	0.0005	8.00E-04	Yes	No
	TPY	0.0480	0.0015			
Benzo(e)pyrene	lb/hr	0.000002	0.0000	2.00E-06	Yes	No
	TPY	0.00001	0.0000			
1,3-Butadiene	lb/hr	0.0032	0.0000	2.40E-05	Yes	No
	TPY	0.0138	0.0000			
Carbon Tetrachloride	lb/hr	0.0002	0.0000	4.40E-04	Yes	No
	TPY	0.0008	0.0000			
Chloroform	lb/hr	0.0001	0.0000	2.80E-04	Yes	No
	TPY	0.0006	0.0000			
1,1-Dichloroethane	lb/hr	0.0001	0.0000	2.50E-04	Yes	No
	TPY	0.0005	0.0000			
1,2-Dichloroethane	lb/hr	0.0001	0.0000	2.50E-04	Yes	No
	TPY	0.0005	0.0000			
1,3-Dichloropentene	lb/hr	0.0001	0.0000	1.90E-07	Yes	No
	TPY	0.0006	0.0000			
Ethylene Dibromide	lb/hr	0.0002	0.0000	3.00E-05	Yes	No
	TPY	0.0009	0.0000			
Formaldehyde	lb/hr	0.2514	0.0000	5.10E-04	Yes	No
	TPY	1.1010	0.0000			
Methylene Chloroide	lb/hr	0.0002	0.0000	1.60E-03	Yes	No
	TPY	0.0009	0.0000			
PAH	lb/hr	0.0007	0.0000	9.10E-05	Yes	No
	TPY	0.0029	0.0000			
1,1,2,2-Tetrachloroethane	lb/hr	0.0002	0.0000	1.10E-05	Yes	No
	TPY	0.0008	0.0000			
1,1,2-Trichloroethane	lb/hr	0.0002	0.0000	4.20E-04	Yes	No
	TPY	0.0007	0.0000			
Vinyl Chloride	lb/hr	0.0001	0.0000	9.40E-04	Yes	No
	TPY	0.0003	0.0000			

Alta Mesa Services
ML Investments 1-11 Well Site
Idaho Section 586 Toxic Air Pollutants Modeling Applicability

		Summary of Emissions	Summary of Non-NSPS, Non-NESHAP Emissions	Section 586 Screening Emission Level	Are Non-NSPS, Non-NESHAPS Emissions Below Section 586 Screening Emission Level?	Modeling Required?
Acrolein	lb/hr	0.0245	0.0000	0.017	Yes	No
	TPY	0.1072	0.0000			
Biphenyl	lb/hr	0.0010	0.0000	0.1	Yes	No
	TPY	0.0044	0.0000			
Chlorobenzene	lb/hr	0.0001	0.0000	23	Yes	No
	TPY	0.0006	0.0000			
Chloroethane	lb/hr	0.00001	0.0000	176	Yes	No
	TPY	0.00004	0.0000			
Cyclohexane	lb/hr	0.000003	0.000003	70	Yes	No
	TPY	0.00002	0.00002			
Cyclopentane	lb/hr	0.0011	0.00000	114.667	Yes	No
	TPY	0.0047	0.00000			
1,2-Dichloropropane	lb/hr	0.0001	0.00000	23.133	Yes	No
	TPY	0.0006	0.00000			
Ethylbenzene	lb/hr	0.0014	0.0002	29	Yes	No
	TPY	0.0048	0.0005			
Heptane	lb/hr	0.0195	0.0195	109	Yes	No
	TPY	0.0156	0.0156			
n-Hexane	lb/hr	0.0347	0.0294	12	Yes	No
	TPY	0.1080	0.0849			
Methanol	lb/hr	0.0146	0.0000	17.3	Yes	No
	TPY	0.0638	0.0000			
Methylcyclohexane	lb/hr	0.0059	0.0000	107	Yes	No
	TPY	0.0257	0.0000			
Naphthalene	lb/hr	0.0005	0.0000	3.33	Yes	No
	TPY	0.0020	0.0000			
n-Nonane	lb/hr	0.0005	0.0000	70	Yes	No
	TPY	0.0023	0.0000			
n-Octane	lb/hr	0.0017	0.0000	93.3	Yes	No
	TPY	0.0073	0.0000			
Pentanes	lb/hr	0.0791	0.0668	118	Yes	No
	TPY	0.2467	0.1925			
Phenol	lb/hr	0.0001	0.0000	1.27	Yes	No
	TPY	0.0005	0.0000			
Toluene	lb/hr	0.0069	0.0007	25	Yes	No
	TPY	0.0283	0.0022			
2,2,4-Trimethylpentane	lb/hr	0.0026	0.0014	23.3	Yes	No
	TPY	0.0092	0.0040			
Xylene	lb/hr	0.0039	0.0005	29	Yes	No
	TPY	0.0172	0.0016			

ATTACHMENT 4

PROCESS DESCRIPTION

ALTA MESA SERVICES
ML INVESTMENTS 1-11 WELL SITE FACILITY
PROCESS DESCRIPTION

Production from this site will flow through separator(s) and line heater(s) where any free water and natural gas liquids will be collected. Liquids separated for the separators will be sent to onsite tanks for storage where they will be pumped to trucks for disposal. The gas will proceed to a central dehydration unit where the remaining water will be removed from the wet gas stream. The gas will then be compressed with a natural gas engine compressor set to be sent to pipeline and moved to the refrigeration plant approximately 8 miles to the south. Emission points included with this project are listed below:

EMISSION POINT TABLE	
EPN	**Description**
WHHTR1	Natural gas fired heater used as a well head heater (0.05 MMbtu/hr)
LNHTR1	Natural gas fired heater used with a line heater (0.5 MMbtu/hr)
HTRTR1	Natural gas fired heater used with a heater treater (1.0 MMbtu/hr)
ENG1	Natural gas compressor engine
WTRTNK1-4	Water Tanks – 80 barrels per day
OILTNK1-10	Oil Tanks – 500 barrels per day
LOAD1	Loading emissions at 500 BOPD
FLR1	Flare emissions at 200 MSCFD

ATTACHMENT 5

FACILITY EMISSION SUMMARY

Alta Mesa Services
ML Investments 1-11 Well Site
Criteria Pollutant Emission Summary

Source Description		Engine	Line Heater	Heater Treater	Well Head Heater	Water Tanks	Oil Tanks	Loading	Flare	Summary of Emissions
Source Information		Caterpillar G398TA Type Engine - 610 hp	0.5 MMbtu/hr	1.0 MMbtu/hr	0.05 MMbtu/hr	4 Tanks at 80 BWPD (No Control)	10 Tanks at 500 BOPD (95% Control)	500 BOPD (98% Control)	Flare at 200 MSCFD	
EPNs		ENG1	LNHTR1	HTRTR1	WHHTR1	WTRTNK1-4	OILTNK1-10	LOAD1	FLR1	
VOC_{total}	lb/hr	0.6718	0.0022	0.0045	0.0002	0.1448	4.3825	0.6008	0.8429	**6.6497**
	TPY	2.9425	0.0098	0.0196	0.0010	0.6345	19.1960	0.4775	3.6918	**26.9727**
NOx	lb/hr	1.3436	0.0407	0.0813	0.0041				1.4251	**2.8947**
	TPY	5.8850	0.1780	0.3561	0.0178				6.2420	**12.6789**
CO	lb/hr	2.6872	0.0341	0.0683	0.0034				2.8451	**5.6381**
	TPY	11.7700	0.1496	0.2991	0.0150				12.4613	**24.6950**
PM_{10}	lb/hr	0.0924	0.0031	0.0062	0.0003				0.0103	**0.1123**
	TPY	0.4047	0.0135	0.0271	0.0014				0.0452	**0.4919**
$PM_{2.5}$	lb/hr	0.0924	0.0023	0.0046	0.0002					**0.0996**
	TPY	0.4047	0.0101	0.0203	0.0010					**0.4362**
SO_2	lb/hr	0.0028	0.0002	0.0005	0.00002				0.0103	**0.0139**
	TPY	0.0123	0.0011	0.0021	0.0001				0.0452	**0.0608**

Alta Mesa Services
ML Investments 1-11 Well Site
Idaho Section 585 Toxic Air Pollutants

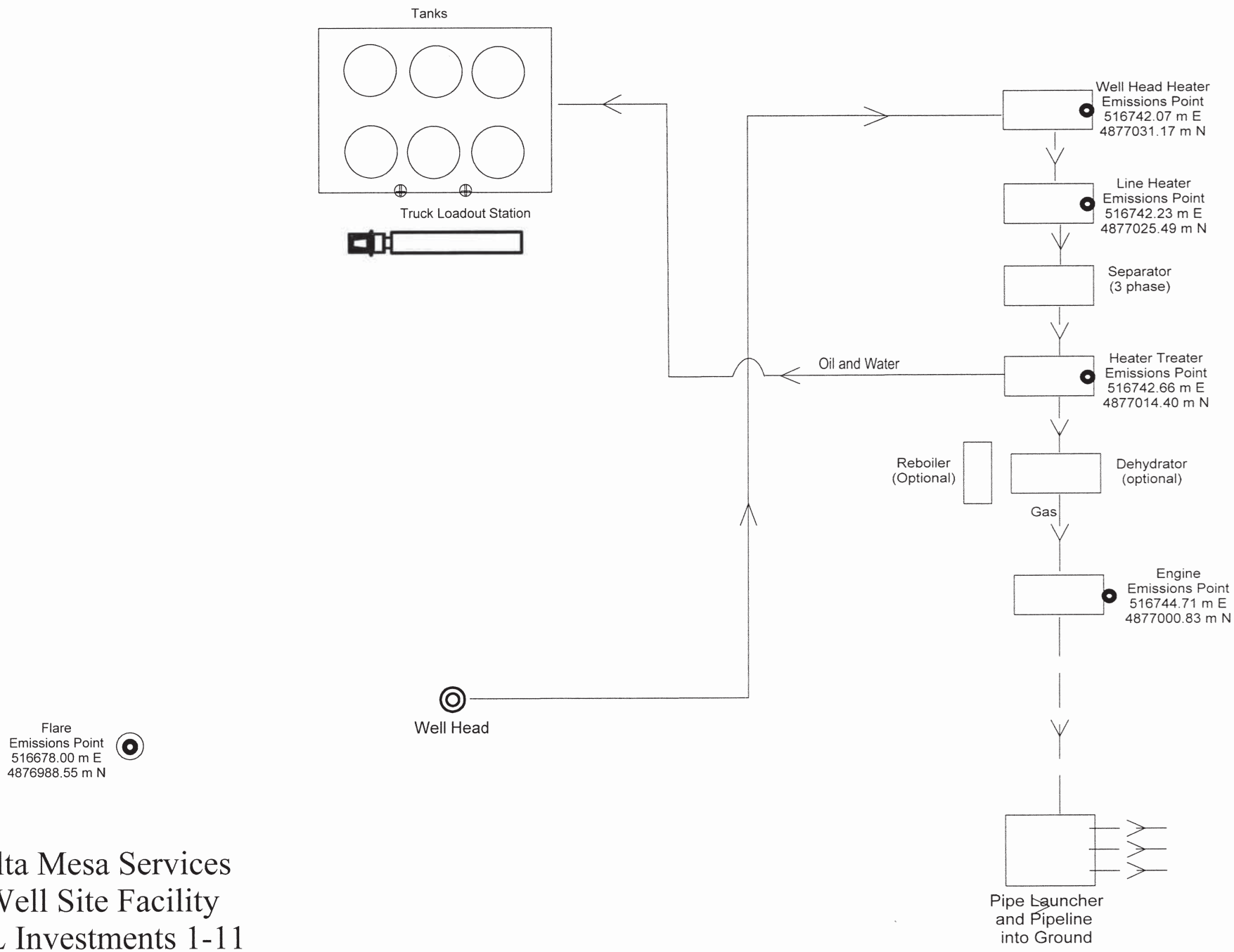
Source Description		Engine	Line Heater	Heater Treater	Well Head Heater	Water Tanks	Oil Tanks	Loading	Flare	Summary of Emissions	Summary of Non-NSPS, Non-NESHAP Emissions
Source Information		Caterpillar G398TA Type Engine - 610 hp	0.5 MMbtu/hr	1.0 MMbtu/hr	0.05 MMbtu/hr	4 Tanks at 80 BWPD (No Control)	10 Tanks at 500 BOPD (95% Control)	500 BOPD (98% Control)	Flare at 200 MSCFD		
EPNs		ENG1	LNHTR1	HTRTR1	WHHTR1	WTRTNK1-4	OILTNK1-10	LOAD1	FLR1		
Acetaldehyde	lb/hr	0.0398								0.0398	0.0000
	TPY	0.1743								0.1743	0.0000
Benzene	lb/hr	0.0075	8.54E-07	1.71E-06	8.54E-08	0.0001	0.0030	0.0002	0.0003	0.0112	0.0005
	TPY	0.0329	3.74E-06	7.48E-06	3.74E-07	0.0005	0.0130	0.0002	0.0014	0.0480	0.0015
Benzo(e)pyrene	lb/hr	0.000002								0.000002	0.0000
	TPY	0.00001								0.00001	0.0000
1,3-Butadiene	lb/hr	0.0032								0.0032	0.0000
	TPY	0.0138								0.0138	0.0000
Carbon Tetrachloride	lb/hr	0.0002								0.0002	0.0000
	TPY	0.0008								0.0008	0.0000
Chloroform	lb/hr	0.0001								0.0001	0.0000
	TPY	0.0006								0.0006	0.0000
1,1-Dichloroethane	lb/hr	0.0001								0.0001	0.0000
	TPY	0.0005								0.0005	0.0000
1,2-Dichloroethane	lb/hr	0.0001								0.0001	0.0000
	TPY	0.0005								0.0005	0.0000
1,3-Dichloropentene	lb/hr	0.0001								0.0001	0.0000
	TPY	0.0006								0.0006	0.0000
Ethylene Dibromide	lb/hr	0.0002								0.0002	0.0000
	TPY	0.0009								0.0009	0.0000
Formaldehyde	lb/hr	0.2514	3.05E-06	6.10E-06	3.05E-07					0.2514	0.0000
	TPY	1.1009	1.34E-05	2.67E-05	1.34E-06					1.1010	0.0000
Methylene Chloroide	lb/hr	0.0002								0.0002	0.0000
	TPY	0.0009								0.0009	0.0000
PAH	lb/hr	0.0007								0.0007	0.0000
	TPY	0.0029								0.0029	0.0000
1,1,2,2-Tetrachloroethane	lb/hr	0.0002								0.0002	0.0000
	TPY	0.0008								0.0008	0.0000
1,1,2-Trichloroethane	lb/hr	0.0002								0.0002	0.0000
	TPY	0.0007								0.0007	0.0000
Vinyl Chloride	lb/hr	0.0001								0.0001	0.0000
	TPY	0.0003								0.0003	0.0000

Alta Mesa Services
ML Investments 1-11 Well Site
Idaho Section 586 Toxic Air Pollutants

Source Description		Engine	Line Heater	Heater Treater	Well Head Heater	Water Tanks	Oil Tanks	Loading	Flare	Summary of Emissions	Summary of Non-NSPS, Non-NESHAP Emissions
Source Information		Caterpillar G398TA Type Engine - 610 hp	0.5 MMbtu/hr	1.0 MMbtu/hr	0.05 MMbtu/hr	4 Tanks at 80 BWPD (No Control)	10 Tanks at 500 BOPD (95% Control)	500 BOPD (98% Control)	Flare at 200 MSCFD		
EPNs		ENG1	LNHTR1	HTRTR1	WHHTR1	WTRTNK1-4	OILTNK1-10	LOAD1	FLR1		
Acrolein	lb/hr	0.0245								0.0245	0.0000
	TPY	0.1072								0.1072	0.0000
Biphenyl	lb/hr	0.0010								0.0010	0.0000
	TPY	0.0044								0.0044	0.0000
Chlorobenzene	lb/hr	0.0001								0.0001	0.0000
	TPY	0.0006								0.0006	0.0000
Chloroethane	lb/hr	0.00001								0.00001	0.0000
	TPY	0.00004								0.00004	0.0000
Cyclohexane	lb/hr								0.000003	0.000003	0.0000
	TPY								0.00002	0.00002	0.0000
Cyclopentane	lb/hr	0.0011								0.0011	0.0000
	TPY	0.0047								0.0047	0.0000
1,2-Dichloropropane	lb/hr	0.0001								0.0001	0.0000
	TPY	0.0006								0.0006	0.0000
Ethylbenzene	lb/hr	0.0002				0.00004	0.0010	0.0001	0.0001	0.0014	0.0002
	TPY	0.0008				0.0001	0.0035	0.0000	0.0003	0.0048	0.0005
Heptane	lb/hr							0.0195	0.00001	0.0195	0.0195
	TPY							0.0155	0.0001	0.0156	0.0156
n-Hexane	lb/hr	0.0053						0.0122	0.0172	0.0347	0.0294
	TPY	0.0231						0.0097	0.0751	0.1080	0.0849
Methanol	lb/hr	0.0146								0.0146	0.0000
	TPY	0.0638								0.0638	0.0000
Methylcyclohexane	lb/hr	0.0059							0.000003	0.0059	0.0000
	TPY	0.0256							0.000014	0.0257	0.0000
Naphthalene	lb/hr	0.0005								0.0005	0.0000
	TPY	0.0020								0.0020	0.0000
n-Nonane	lb/hr	0.0005								0.0005	0.0000
	TPY	0.0023								0.0023	0.0000
n-Octane	lb/hr	0.0017								0.0017	0.0000
	TPY	0.0073								0.0073	0.0000
Pentanes	lb/hr	0.0124						0.0278	0.0390	0.0791	0.0668
	TPY	0.0542						0.0221	0.1704	0.2467	0.1925
Phenol	lb/hr	0.0001								0.0001	0.0000
	TPY	0.0005								0.0005	0.0000
Toluene	lb/hr	0.0027	0.000001	0.000003	0.0000001	0.0001	0.0035	0.0002	0.0003	0.0069	0.0007
	TPY	0.0116	0.000006	0.00001	0.000001	0.0005	0.0145	0.0002	0.0015	0.0283	0.0022
2,2,4-Trimethylpentane	lb/hr	0.0012						0.0006	0.0008	0.0026	0.0014
	TPY	0.0052						0.0005	0.0036	0.0092	0.0040
Xylene	lb/hr	0.0009				0.00008	0.0025	0.0002	0.0002	0.0039	0.0005
	TPY	0.0041				0.0004	0.0115	0.0001	0.0011	0.0172	0.0016

ATTACHMENT 6

PRELIMINARY PLOT PLAN



Alta Mesa Services
Well Site Facility
ML Investments 1-11
EPN Plot Plan

Alta Mesa Services

ML Investments 1-11 Well Site Facility Emission Summary

Source Description		Well Head Heater	Line Heater	Heater Treater	Engine	Water Tanks	Oil Tanks	Loading	Flare	Summary of Emissions
Source Information		0.05 MMbtu/hr	0.5 MMbtu/hr	1.0 MMbtu/hr	Caterpillar G398TA Type Engine - 610 hp	4 Tanks at 80 BWPD (No Control)	10 Tanks at 500 BOPD (95% Control)	500 BOPD (98% Control)	Flare at 100 MSCFD	
EPNs		WHHTR1	LNHTR1	HTRTR1	ENG1	WTRTNK1-4	OILTNK1-10	LOAD1	FLR1	
VOC_{total}	lb/hr	0.0002	0.0022	0.0045	0.6718	0.1448	4.3825	0.6008	0.4227	**6.2295**
	TPY	0.0010	0.0098	0.0196	2.9425	0.6345	19.1960	0.4775	1.8513	**25.1322**
NOx	lb/hr	0.0041	0.0407	0.0813	1.3436				0.3537	**1.8234**
	TPY	0.0178	0.1780	0.3561	5.8850				1.5493	**7.9863**
CO	lb/hr	0.0034	0.0341	0.0683	2.6872				1.6126	**4.4057**
	TPY	0.0150	0.1496	0.2991	11.7700				7.0631	**19.2968**
PM_{10}	lb/hr	0.0003	0.0031	0.0062	0.0924				0.0052	**0.1072**
	TPY	0.0014	0.0135	0.0271	0.4047				0.0228	**0.4694**
$PM_{2.5}$	lb/hr	0.0002	0.0023	0.0046	0.0924				0.0052	**0.1048**
	TPY	0.0010	0.0101	0.0203	0.4047				0.0228	**0.4590**
SO_2	lb/hr	0.00002	0.0002	0.0005	0.0028				0.0052	**0.0088**
	TPY	0.0001	0.0011	0.0021	0.0123				0.0228	**0.0384**
Formaldehyde	lb/hr	3.05E-07	3.05E-06	6.10E-06	0.2514					**0.2514**
	TPY	1.34E-06	1.34E-05	2.67E-05	1.1009					**1.1010**
Benzene	lb/hr	8.54E-08	8.54E-07	1.71E-06	0.0075	0.0001	0.0030	0.0002	0.00016	**0.0110**
	TPY	3.74E-07	3.74E-06	7.48E-06	0.0329	0.0005	0.0130	0.0002	0.0007	**0.0473**
Toluene	lb/hr	1.38E-07	1.38E-06	2.76E-06	0.0027	0.0001	0.0035	0.0002	0.0002	**0.0067**
	TPY	6.05E-07	6.05E-06	1.21E-05	0.0116	0.0005	0.0145	0.0002	0.0007	**0.0276**
Ethylbenzene	lb/hr				0.0002	0.0000	0.0010	0.0001	0.0000	**0.0013**
	TPY				0.0008	0.0001	0.0035	0.0000	0.0002	**0.0047**
Xylene	lb/hr				0.0009	0.0001	0.0025	0.0002	0.0001	**0.0038**
	TPY				0.0041	0.0004	0.0115	0.0001	0.0005	**0.0166**

Facility Flare Calculations

EPN: FLR1

Pilot Combustion Emissions						
				FACTORS	EMISSIONS	
		Pollutant	Reference	lb/MMBtu	lbs/hr	TPY
Hours of Operation	8,760	NOx	AP-42	0.068	0.0052	0.0229
Hours per Day	24	CO	AP-42	0.310	0.0238	0.1044
Throughput (SCFD)	1,500	THC	AP-42	0.140	0.0108	0.0471
Hourly Flowrate (SCFH)	63	VOC	THC %		0.0025	0.0108
Lower heating value (BTU/SCF)	1,230	SO2	AP-42	0.001	0.0001	0.0003
Combustion Rate	0.08	PM10 / soot	AP-42	0.001	0.0001	0.0003
		PM2.5 / soot	AP-42	0.001	0.0001	0.0003
Calculation Notes:	*VOCs taken from gas analysis listed below*					
	Emission Factors are from AP-42 - 13.5					

Waste Gas (Tank Vapors) Combustion Emissions						
				FACTORS	EMISSIONS	
		Pollutant	Reference	lb/MMBtu	lbs/hr	TPY
Hours of Operation	8,760	NOx	AP-42	0.068	0.3485	1.5264
Hours per Day	24	CO	AP-42	0.310	1.5888	6.9587
Throughput (SCFD)	100,000	THC	AP-42	0.140	0.7175	3.1427
Hourly Flowrate (SCFH)	4,167	VOC	THC %		0.4202	1.8405
Lower heating value (BTU/SCF)	1,230	SO2	AP-42	0.001	0.0051	0.0224
Combustion Rate	5.13	PM10 / soot	AP-42	0.001	0.0051	0.0224
		PM2.5 / soot	AP-42	0.001	0.0051	0.0224
Calculation Notes:	*VOCs taken from gas analysis listed below*					
	Emission Factors are from AP-42 - 13.5					

Field Gas or Pilot Gas

Component	Mole Wt	Mole%	lb/mol Mix	Wt%	Percentage	EMISSIONS lbs/hr	EMISSIONS TPY
Methane	16.043	84.8561	13.613	66.981	67.0%		
Nitrogen	28.013	0.4883	0.137	0.673	0.7%		
Carbon Dioxide	44.01	0.1433	0.063	0.310	0.3%		
Ethane	30.07	6.2131	1.868	9.192	9.2%	VOC	
Hydrogen Sulfide	34.08	0.0000	0.000	0.000	0.0%	Speciation	
Propane	44.097	4.0209	1.773	8.724	8.7%	0.0002	0.0009
Iso-butane	58.124	0.9324	0.542	2.666	2.7%	0.0001	0.0003
N-Butane	58.124	1.5751	0.916	4.505	4.5%	0.0001	0.0005
Iso-Pentane	72.151	0.5374	0.388	1.908	1.9%	0.0000	0.0002
N-Pentane	72.151	0.5433	0.392	1.929	1.9%	0.0000	0.0002
N-Hexane	86.07	0.2249	0.194	0.952	1.0%	0.0000	0.0001
Cyclohexane	84.16	0.0342	0.029	0.142	0.1%	0.0000	0.0000
Heptanes	100.21	0.1201	0.120	0.592	0.6%	0.0000	0.0001
Methylcyclohexane	96.17	0.0266	0.026	0.126	0.1%	0.0000	0.0000
224-Trimethylpentane	114.22	0.0068	0.008	0.038	0.0%	0.0000	0.0000
Benzene	78.11	0.0035	0.003	0.013	0.0%	0.0000	0.0000
Toluene	92.14	0.0021	0.002	0.010	0.0%	0.0000	0.0000
Ethylbenzene	106.17	0.0003	0.000	0.002	0.0%	0.0000	0.0000
Xylenes	106.16	0.0005	0.001	0.003	0.0%	0.0000	0.0000
Hexanes +	92.12	0.2421	0.223	1.097	1.1%	0.0000	0.0001
C8 Heavies	96.09	0.0290	0.028	0.137	0.1%	0.0000	0.0000
		8.30	20.324	100.000	100%		
		100.0000	**VOC 22.8**				

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

Waste Gas

Component	Mole Wt	Mole%	lb/mol Mix	Wt%	Percentage	EMISSIONS lbs/hr	EMISSIONS TPY
Methane	16.043	52.8958	8.486	27.580	27.6%		
Nitrogen	28.013	0.0000	0.000	0.000	0.0%		
Carbon Dioxide	44.01	0.0000	0.000	0.000	0.0%		
Ethane	30.07	14.1768	4.263	13.855	13.9%	VOC	
Hydrogen Sulfide	34.08	0.0000	0.000	0.000	0.0%	Speciation	
Propane	44.097	15.0133	6.620	21.516	21.5%	0.0904	0.3960
Iso-butane	58.124	3.5901	2.087	6.782	6.8%	0.0285	0.1248
N-Butane	58.124	6.5826	3.826	12.435	12.4%	0.0523	0.2289
Iso-Pentane	72.151	1.9119	1.379	4.483	4.5%	0.0188	0.0825
N-Pentane	72.151	1.9743	1.424	4.630	4.6%	0.0195	0.0852
N-Hexane	86.07	0.7287	0.627	2.038	2.0%	0.0086	0.0375
Cyclohexane	84.16	0.0000	0.000	0.000	0.0%	0.0000	0.0000
Heptanes	100.21	0.9976	1.000	3.249	3.2%	0.0137	0.0598
Methylcyclohexane	96.17	0.0000	0.000	0.000	0.0%	0.0000	0.0000
224-Trimethylpentane	114.22	0.0260	0.030	0.097	0.1%	0.0004	0.0018
Benzene	78.11	0.0145	0.011	0.037	0.0%	0.0002	0.0007
Toluene	92.14	0.0133	0.012	0.040	0.0%	0.0002	0.0007
Ethylbenzene	106.17	0.0027	0.003	0.009	0.0%	0.0000	0.0002
Xylenes	106.16	0.0085	0.009	0.029	0.0%	0.0001	0.0005
Hexanes +	92.12	0.7804	0.719	2.336	2.3%	0.0098	0.0430
C8 Heavies	96.09	0.2833	0.272	0.885	0.9%	0.0037	0.0163
		31.93	30.769	100.000	100%		
		98.9998	**VOC 58.6**				

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

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

Version 1, August 2010

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	**1.1010**
Benzene	**0.0473**
Toluene	**0.0276**
Ethylbenzene	**0.0047**
Xylene	**0.0166**
n-Hexane	**0.0705**
2,2,4-Trimethylpentane	**0.0075**
Total	**1.2751**

* 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 included[1].**

[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.

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

Version 1, August 2010

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)
Toluene	0	0.0067	0.0067	25	See Protocol
Ethylbenzene	0	0.0013	0.0013	29	See Protocol
Xylene	0	0.0038	0.0038	29	See Protocol
Acrolein	0	0.0245	0.0245	0.017	See Protocol
Methylcyclohexane	0	0.0059	0.0059	107	See Protocol

n-pentane	0	0.0597	0.0597	118	See Protocol
Cyclopentane	0	0.0011	0.0011	114.67	See Protocol
1,2-dichloropropane	0	0.0001	0.0001	23.133	See Protocol
Biphenyl	0	0.0010	0.0010	0.1	See Protocol
Chlorobenzene	0	0.0001	0.0001	23.3	See Protocol
Chloroethane	0	0.0000	0.0000	27	See Protocol
Methanol	0	0.0146	0.0146	17.3	See Protocol
n-Nonane	0	0.0005	0.0005	70	See Protocol
n-Octane	0	0.0017	0.0017	93.3	See Protocol
Naphthalene	0	0.0005	0.0005	3.33	See Protocol
Phenol	0	0.0001	0.0001	1.27	See Protocol
n-Hexane	0	0.0261	0.0261	12	See Protocol
2,2,4-trimethylpentane	0	0.0022	0.0022	23.3	See Protocol
Heptane	0	0.0332	0.0332	109	See Protocol
Cyclohexane	0	0.000003	0.000003	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	2.51E-01	2.51E-01	5.10E-04	See Protocol
Benzene	0	1.10E-02	1.10E-02	8.00E-04	See Protocol

acetaldehyde	0	3.98E-02	3.98E-02	3.00E-03	See Protocol
1,1-dichloroethane	0	1.12E-04	1.12E-04	2.50E-04	See Protocol
1,2-dichloroethane	0	1.12E-04	1.12E-04	2.50E-04	See Protocol
1,1,2-Trichloroethane	0	1.51E-04	1.51E-04	4.20E-04	See Protocol
1,1,2,2-Tetrachloroethane	0	1.90E-04	1.90E-04	1.10E-05	See Protocol
1,3-butadiene	0	3.16E-03	3.16E-03	2.40E-05	See Protocol
1,3-dichloropropene	0	1.26E-04	1.26E-04	1.90E-07	See Protocol
Benzo(e)pyrene	0	1.98E-06	1.98E-06	2.00E-06	See Protocol
Carbon Tetrachloride	0	1.75E-04	1.75E-04	4.40E-04	See Protocol
Chloroform	0	1.36E-04	1.36E-04	2.80E-04	See Protocol
Ethylene Dibromide	0	2.11E-04	2.11E-04	3.00E-05	See Protocol
Methylene Chloride	0	1.96E-04	1.96E-04	1.60E-03	See Protocol
PAH	0	6.71E-04	6.71E-04	9.10E-05	See Protocol
Vinyl Chloride	0	7.09E-05	7.09E-05	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.

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

Version 1, August 2010

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 submitted[1]. 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	NO_X[a]	CO[a]	PM_{10}[a]	$PM_{2.5}$[a]	SO_2[a]
	T/yr	T/yr	T/yr	T/yr	T/yr	T/yr
Point Sources						
ENG1	2.9425	5.8850	11.7700	0.4047	0.4047	0.0123
WHHTR1	0.0010	0.0178	0.0150	0.0014	0.0010	0.0001
LNHTR1	0.0098	0.1780	0.1496	0.0135	0.0101	0.0011
HTRTR1	0.0196	0.3561	0.2991	0.0271	0.0203	0.0021
WTRTNK1-4	0.6345	0.00	0.00	0.00	0.00	0.00
OILTNK1-10	19.1960	0.00	0.00	0.00	0.00	0.00
LOAD1	0.4775	0.00	0.00	0.00	0.00	0.00
FLR1	1.8513	1.5493	7.0631	0.0228	.0228	0.0228
Fugitive Sources *{For listed source categories only, see item 3 below in the instructions}*						
FUG1	0.00	0.00	0.00	0.00	0.00	0.00
Totals	**25.1322**	**7.9863**	**19.2968**	**0.4694**	**0.4590**	**0.0384**

a) NSR Regulated air Pollutants are defined[2] 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

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[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,

NSPS (40 CFR 60)(i.e. TRS, fluoride, sulfuric acid mist) & Class I & Class II Ozone Depleting Substances (40 CFR 82)(i.e. CFC, HCFC, Halon, etc.)

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
- 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

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methane, hydrofluorcarbons, perfluorcarbons, sulfur hexafluoride). Be sure to show all calculations as described in the instructions.

- Phosphate rock processing plants
- Coke oven batteries
- Sulfur recovery plants
- Fossil fuel-fired steam electric plants greater than 250 MMBtu/hr)
- Categories regulated by NSPS or NESHAP prior to 8/7/80

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

Version 2, January 2011

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 pollutants[1]. 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	2.6872	2.6872	0.0	0.0
Well Head Heater	WHHTR1	0.0003	0.0002	0.0002	0.00002	0.00002	0.0041	0.0041	0.0034	0.0034	0.0	0.0
Line Heater	LNHTR1	0.0031	0.0023	0.0023	0.0002	0.0002	0.0407	0.0407	0.0341	0.0341	0.0	0.0
Heater Treater	HTRTR1	0.0062	0.0046	0.0046	0.0005	0.0005	0.0813	0.0813	0.0683	0.0683	0.0	0.0
Flare	FLR1	0.0052	0.0052	0.0052	0.0052	0.0052	0.3537	0.3537	1.6126	1.6126	0.0	0.0
Fugitive Sources												
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.

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[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.**

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[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 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.

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[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.

ALTA MESA SERVICES
ML INVESTMENTS 1-11 WELL SITE FACILITY
MODELING PROTOCOL CHECKLIST

Introduction and Purpose

1. **General overview, facility description, description of area where facility is located:**

   The facility is an oil and gas well site gathering and processing facility for a parcel of land in Payette County, Idaho. The proposed site is located approximately 5 miles northeast of the city of Payette (see Aerial Photo in Attachment 1). The proposed site is located in an agricultural area with no residences or other critical receptors in the vicinity.

2. **Project overview:**

   Alta Mesa Services, LP (hereinafter "AM") applied for this Permit to Construct (PTC) to allow construction of a facility necessary for the gathering and processing of produced hydrocarbons. Production from this site will flow through separator(s) and lineheater(s) where any free water and natural gas liquids will be collected. Liquids separated for the separators will be sent to onsite tanks for storage where they will be pumped to trucks for disposal. The gas will proceed to a central dehydration unit where the remaining water will be removed from the wet gas stream. The gas will then be compressed with a natural gas engine compressor set to be sent to pipeline and moved to the refrigeration plant approximately 8 miles to the south.

3. **Goals of the air quality impact analysis (i.e., demonstrate compliance for a PTC for a modification, PTC for a new facility, or a Tier II operating permit):**

   The goal of this air quality analysis is to demonstrate compliance with the requirements for a PTC for a new facility.

4. **Applicable regulations and requirements:**

   The PTC application contains a complete review of the applicable air quality regulations and requirements.

5. **Pollutants of concern:**

   See Attachment 2. The proposed new facility will be a source of emissions of the following criteria pollutants: nitrogen dioxide (as NO_X), carbon monoxide (CO), particulate matter less than 10 micrometers in aerodynamic diameter (PM_{10}), particulate matter less than 2.5

micrometers in aerodynamic diameter ($PM_{2.5}$), and sulfur dioxide (SO_2). The proposed emission increase totals of all criteria pollutants except NO_X are calculated to be either less than the 10 percent of the Significant Emission (BRC) Rates defined in 40 CFR 52.21(b)(23) or are below the Level I modeling thresholds. As a result, air dispersion modeling of these criteria pollutants is not required to be performed.

The Level II modeling thresholds for NO_X are 14 tn/yr and 2.4 lb/hr. The proposed NOx emission increases from this facility are calculated to be 8.0 tn/yr and 1.8 lb/hr, well below the Level II modeling thresholds. Therefore, NO_X modeling is not required because the emission increase levels fall below the Level II modeling thresholds.

Even though the Level II modeling thresholds were developed from screening modeling of an emission source with different stack release characteristics, the applicant maintains that they are appropriate for use for this facility for the following reasons.

- The approximately 1000 degree Fahrenheit release temperature from the engine is close to four times higher than the 260 degree Fahrenheit release temperature used to define the modeling threshold. The plume emitted from the engine will have significantly more thermal buoyancy resulting in greater plume height and increased dispersion resulting in lower ground level concentrations than the plume emitted from the NO_X source used in the Level II screen modeling.

- The release velocity from this engine is approximately double the release velocity of the emission source used to define the Level II threshold. The higher release velocity results in more vertical momentum, greater plume height, and increased dispersion resulting in lower ground level concentrations as compared to the release velocity used to establish the Level II threshold.

This conclusion is consistent with the determination made by Cheryl Robinson, P.E. of the Air Quality Division of IDEQ on a similar project. In a letter addressed to Alta Mesa Services dated November 20, 2013, Ms. Robinson indicates that “Although the engine stack height will typically be fairly short, the exit temperature and velocity provide substantial greater thermal buoyancy and momentum than assumed for the modeling thresholds”.

A similar modeling applicability assessment was performed for the toxic air pollutants (TAP) proposed to be emitted from the facility (Attachment 3). Since the Caterpillar engine

(EP ID: ENG1) is subject to 40 CFR 63 Subpart ZZZZ, the TAP emissions from this engine are considered Federally regulated and are exempt from this TAP review in accordance with Section 210.20 of the Idaho Air Rules. Since the storage tanks are subject to 40 CFR 60 Subpart OOOO, the emissions from these sources are also exempt from TAP modeling review.

The proposed emissions increase totals of all the TAPs from non-exempted sources are compared against the TAP Screening Emission Levels provided in Idaho Air Rules Section 585 and 586. As a result of this comparison (contained in Attachment 3), the emissions of all TAP pollutants are exempt from air dispersion modeling review.

Emissions and Source Data

1. **Description of facility processes and emissions controls affected by the permitting action:**

   A process description is enclosed in Attachment 4.

2. **List of emissions points that will be included in the modeling analyses:**

   The requested emission point table is enclosed in Attachment 5.

3. **Present a table showing current actual/allowable, the future allowable emission rates, and the requested emissions increase:**

   Because this facility is a Greenfield facility, there are no current actual or allowable emission rates. The future allowable emission rates are listed in the emission rate table contained in Attachment 5.

4. **Good engineering practice (GEP) stack-height analysis for any stacks approaching GEP height:**

   All stack release heights will be far below the GEP formula height. However, a GEP stack height analysis will not be necessary because all criteria and toxic pollutant emission increases are below the respective modeling exemption levels and modeling will not be required.

5. **Graphic showing the facility layout: location of sources, buildings, emissions points, and fence lines:**

   The requested graphic is enclosed in Attachment 6.

6. **Description of methods used to calculate or otherwise determine source parameters for each source included in the modeling analyses:**

   An air dispersion modeling analysis will not be required because all criteria and toxic pollutant emission increases are below the respective modeling exemption levels.

7. **Methodology for including area and volume sources in the modeling analysis, including justification and calculations of initial dispersion coefficients and release heights:**

   Air dispersion modeling of area and volume sources will not be required because all criteria and toxic pollutant emission increases are below the respective modeling exemption levels.

8. **Methodology for including/excluding sources from the modeling analyses:**

   An air dispersion modeling analysis will not be required because all criteria and toxic pollutant emission increases are below the respective modeling exemption levels.

<u>Air Quality Modeling Methodology</u>

1. **Description of model selection and justification. This may be minimal in cases where the regulatory guideline model is used (AERMOD in most cases):**

   An air dispersion modeling analysis will not be required because all criteria and toxic pollutant emission increases are below the respective modeling exemption levels.

2. **Description of model setup and application**

   a. **Model options (i.e., regulatory default). Describe and provide justification for any non-default settings:**

   An air dispersion modeling analysis will not be required because all criteria and toxic pollutant emission increases are below the respective modeling exemption levels.

   b. **Averaging periods used in the analyses and how emissions rates were calculated for specific averaging periods:**

   An air dispersion modeling analysis will not be required because all criteria and toxic pollutant emission increases are below the respective modeling exemption levels.

c. **Land-use analysis in all cases where "urban" is used and in cases where land use is not obviously "rural":**

The land use in the vicinity of the proposed plant qualifies as A2 and A3 land use types. Rural dispersion parameters would be used if modeling were to be performed.

d. **Methods used to account for building downwash in the analyses:**

A building downwash analysis will not be performed because all criteria and toxic pollutant emission increases are below the respective modeling exemption levels and modeling is not required.

e. **Treatment of any chemical transformations (e.g., NO to NO_2) accounted for in the analyses:**

Chemical transformation considerations are not necessary because all criteria and toxic pollutant emission increases are below the respective modeling exemption levels and modeling will not be required.

f. **Any other unique methods or data used:**

An air dispersion modeling analysis will not be required because all criteria and toxic pollutant emission increases are below the respective modeling exemption levels.

3. **Description of how elevations of sources, buildings, and receptors were determined:**

Terrain elevation determinations will not be needed because all criteria and toxic pollutant emission increase are below the respective modeling exemption level and modeling is not necessary.

4. **Receptor network**

a. **Description of receptor grids – include methodology for ensuring the maximum concentration will be estimated:**

A receptor grid analysis will not be required to be established because all criteria and toxic pollutant emission increases are below the respective modeling exemption levels.

b. **Discussion/justification of ambient air boundary, including a description of how the general public will be excluded from areas not considered ambient air:**

The ambient air boundary is not a consideration because all criteria and toxic pollutant emission increases are below the respective modeling exemption levels and modeling will not be required.

5. **Meteorological data**

a. **Selection of meteorological databases – justification of appropriateness of meteorological data to area of interest:**

No meteorological data will be needed because all criteria and toxic pollutant emission increases are below the respective modeling exemption levels and modeling will not be required.

b. **Meteorological data processing:**

No meteorological data will be needed because all criteria and toxic pollutant emission increases are below the respective modeling exemption levels and modeling will not be required.

c. **Meteorological data analysis (e.g., wind rose):**

No meteorological data analysis will be needed because all criteria and toxic pollutant emission increases are below the respective modeling exemption levels and modeling will not be required.

6. **Background concentrations:**

Background concentrations will be not be a consideration since all criteria and toxic pollutant emission increases are below the respective modeling exemption levels and modeling will not be required.

Applicable Regulatory Limits

1. **Methodology for evaluation of compliance with standards (i.e., determination of design concentration):**

The Modeled Design Concentration determination will not be performed because all criteria pollutant emission increases are below the respective modeling exemption levels and modeling is not required.

2. **Significant Impact analysis**

   a. **Comparison to SILs:**

   A Significant Impact Analysis will not be required because all criteria pollutant emission increases are below the respective modeling exemption levels and modeling is not required.

   b. **TAPs analysis:**

   A TAP air dispersion modeling analysis will not be required because all toxic pollutant emission increases are below the respective modeling exemption levels.

3. **Cumulative NAAQS impact analysis**

   a. **NAAQS analysis:**

   A NAAQS analysis will not be required because all criteria pollutant emission increases are below the respective modeling exemption levels and modeling will not be required.

4. **Presentation of results – state how the results of the modeling analysis will be displayed:**

   An air dispersion modeling analysis will not be required because all criteria and toxic pollutant emission increases are below the respective modeling exemption levels.

ATTACHMENT 1

AERIAL PHOTO

BASE MAP INFO:

Aerial Photo dated: 4/29/15

PHOTO EXTRACTED FROM: Google Earth Pro

1" = 1500 FT

Alta Mesa
ML Investments 1-11

Payette County, Idaho

Aerial Photo

ATTACHMENT 2

CRITERIA POLLUTANT MODELING APPLICABILITY EVALUATION

Alta Mesa Services
ML Investments 1-11 Well Site
Criteria Pollutant Modeling Applicability

		Summary of Emissions	Significant Emission Rate (SER)	10% of SER (BRC Threshold)	Are Emissions Below BRC Threshold?	Level I Thresholds	Are Emissions Below Level I Thresholds?	Level II Thresholds	Are Emissions Below Level II Thresholds?	Modeling Required?
NOx	lb/hr	1.8234				0.20	No	2.4	Yes, Exempted	No
	TPY	7.9863	40	4	No	1.2	No	14	Yes, Exempted	
CO	lb/hr	4.4057				15	Yes, Exempted			No
	TPY	19.2968	100	10	No					
PM_{10}	lb/hr	0.1072								No
	TPY	0.4694	15	1.5	Yes, Exempted					
$PM_{2.5}$	lb/hr	0.1048								No
	TPY	0.4590	10	1	Yes, Exempted					
SO_2	lb/hr	0.0088								No
	TPY	0.0384	40	4	Yes, Exempted					

ATTACHMENT 3

TOXIC AIR POLLUTANT MODELING APPLICABILITY EVALUATION

Alta Mesa Services
ML Investments 1-11 Well Site
Idaho Section 585 Toxic Air Pollutants Modeling Applicability

		Summary of Emissions	Summary of Non-NSPS, Non-NESHAP Emissions	Section 585 Screening Emission Level	Are Non-NSPS, Non-NESHAPS Emissions Below Section 585 Screening Emission Level?	Modeling Required?
Acetaldehyde	lb/hr	0.0398	0.0000	3.00E-03	Yes	No
	TPY	0.1743	0.0000			
Benzene	lb/hr	0.0110	0.0004	8.00E-04	Yes	No
	TPY	0.0473	0.0009			
Benzo(e)pyrene	lb/hr	0.000002	0.0000	2.00E-06	Yes	No
	TPY	0.00001	0.0000			
1,3-Butadiene	lb/hr	0.0032	0.0000	2.40E-05	Yes	No
	TPY	0.0138	0.0000			
Carbon Tetrachloride	lb/hr	0.0002	0.0000	4.40E-04	Yes	No
	TPY	0.0008	0.0000			
Chloroform	lb/hr	0.0001	0.0000	2.80E-04	Yes	No
	TPY	0.0006	0.0000			
1,1-Dichloroethane	lb/hr	0.0001	0.0000	2.50E-04	Yes	No
	TPY	0.0005	0.0000			
1,2-Dichloroethane	lb/hr	0.0001	0.0000	2.50E-04	Yes	No
	TPY	0.0005	0.0000			
1,3-Dichloropropene	lb/hr	0.0001	0.0000	1.90E-07	Yes	No
	TPY	0.0006	0.0000			
Ethylene Dibromide	lb/hr	0.0002	0.0000	3.00E-05	Yes	No
	TPY	0.0009	0.0000			
Formaldehyde	lb/hr	0.2514	0.0000	5.10E-04	Yes	No
	TPY	1.1010	0.0000			
Methylene Chloroide	lb/hr	0.0002	0.0000	1.60E-03	Yes	No
	TPY	0.0009	0.0000			
PAH	lb/hr	0.0007	0.0000	9.10E-05	Yes	No
	TPY	0.0029	0.0000			
1,1,2,2-Tetrachloroethane	lb/hr	0.0002	0.0000	1.10E-05	Yes	No
	TPY	0.0008	0.0000			
1,1,2-Trichloroethane	lb/hr	0.0002	0.0000	4.20E-04	Yes	No
	TPY	0.0007	0.0000			
Vinyl Chloride	lb/hr	0.0001	0.0000	9.40E-04	Yes	No
	TPY	0.0003	0.0000			

Alta Mesa Services
ML Investments 1-11 Well Site
Idaho Section 586 Toxic Air Pollutants Modeling Applicability

		Summary of Emissions	Summary of Non-NSPS, Non-NESHAP Emissions	Section 586 Screening Emission Level	Are Non-NSPS, Non-NESHAPS Emissions Below Section 586 Screening Emission Level?	Modeling Required?
Acrolein	lb/hr	0.0245	0.0000	0.017	Yes	No
	TPY	0.1072	0.0000			
Biphenyl	lb/hr	0.0010	0.0000	0.1	Yes	No
	TPY	0.0044	0.0000			
Chlorobenzene	lb/hr	0.0001	0.0000	23	Yes	No
	TPY	0.0006	0.0000			
Chloroethane	lb/hr	0.00001	0.0000	176	Yes	No
	TPY	0.00004	0.0000			
Cyclohexane	lb/hr	0.000003	0.000003	70	Yes	No
	TPY	0.00002	0.00002			
Cyclopentane	lb/hr	0.0011	0.00000	114.667	Yes	No
	TPY	0.0047	0.00000			
1,2-Dichloropropane	lb/hr	0.0001	0.00000	23.133	Yes	No
	TPY	0.0006	0.00000			
Ethylbenzene	lb/hr	0.0013	0.0001	29	Yes	No
	TPY	0.0047	0.0003			
Heptane	lb/hr	0.0332	0.0332	109	Yes	No
	TPY	0.0156	0.0156			
n-Hexane	lb/hr	0.0261	0.0208	12	Yes	No
	TPY	0.0705	0.0474			
Methanol	lb/hr	0.0146	0.0000	17.3	Yes	No
	TPY	0.0638	0.0000			
Methylcyclohexane	lb/hr	0.0059	0.0000	107	Yes	No
	TPY	0.0257	0.0000			
Naphthalene	lb/hr	0.0005	0.0000	3.33	Yes	No
	TPY	0.0020	0.0000			
n-Nonane	lb/hr	0.0005	0.0000	70	Yes	No
	TPY	0.0023	0.0000			
n-Octane	lb/hr	0.0017	0.0000	93.3	Yes	No
	TPY	0.0073	0.0000			
Pentanes	lb/hr	0.0597	0.0473	118	Yes	No
	TPY	0.1615	0.1073			
Phenol	lb/hr	0.0001	0.0000	1.27	Yes	No
	TPY	0.0005	0.0000			
Toluene	lb/hr	0.0067	0.0005	25	Yes	No
	TPY	0.0276	0.0015			
2,2,4-Trimethylpentane	lb/hr	0.0022	0.0010	23.3	Yes	No
	TPY	0.0075	0.0022			
Xylene	lb/hr	0.0038	0.0004	29	Yes	No
	TPY	0.0166	0.0011			

ATTACHMENT 4

PROCESS DESCRIPTION

ALTA MESA SERVICES
ML INVESTMENTS 1-11 WELL SITE FACILITY
PROCESS DESCRIPTION

Production from this site will flow through separator(s) and line heater(s) where any free water and natural gas liquids will be collected. Liquids separated for the separators will be sent to onsite tanks for storage where they will be pumped to trucks for disposal. The gas will proceed to a central dehydration unit where the remaining water will be removed from the wet gas stream. The gas will then be compressed with a natural gas engine compressor set to be sent to pipeline and moved to the refrigeration plant approximately 8 miles to the south. Emission points included with this project are listed below:

EMISSION POINT TABLE	
EPN	**Description**
WHHTR1	Natural gas fired heater used as a well head heater (0.05 MMbtu/hr)
LNHTR1	Natural gas fired heater used with a line heater (0.5 MMbtu/hr)
HTRTR1	Natural gas fired heater used with a heater treater (1.0 MMbtu/hr)
ENG1	Natural gas compressor engine
WTRTNK1-4	Water Tanks – 80 barrels per day
OILTNK1-10	Oil Tanks – 500 barrels per day
LOAD1	Loading emissions at 500 BOPD
FLR1	Flare emissions at 100 MSCFD

ATTACHMENT 5

FACILITY EMISSION SUMMARY

Alta Mesa Services
ML Investments 1-11 Well Site
Criteria Pollutant Emission Summary

Source Description		Engine	Line Heater	Heater Treater	Well Head Heater	Water Tanks	Oil Tanks	Loading	Flare	Summary of Emissions
Source Information		Caterpillar G398TA Type Engine - 610 hp	0.5 MMbtu/hr	1.0 MMbtu/hr	0.05 MMbtu/hr	4 Tanks at 80 BWPD (No Control)	10 Tanks at 500 BOPD (95% Control)	500 BOPD (98% Control)	Flare at 100 MSCFD	
EPNs		ENG1	LNHTR1	HTRTR1	WHHTR1	WTRTNK1-4	OILTNK1-10	LOAD1	FLR1	
VOC_{total}	lb/hr	0.6718	0.0022	0.0045	0.0002	0.1448	4.3825	0.6008	0.4227	**6.2295**
	TPY	2.9425	0.0098	0.0196	0.0010	0.6345	19.1960	0.4775	1.8513	**25.1322**
NOx	lb/hr	1.3436	0.0407	0.0813	0.0041				0.3537	**1.8234**
	TPY	5.8850	0.1780	0.3561	0.0178				1.5493	**7.9863**
CO	lb/hr	2.6872	0.0341	0.0683	0.0034				1.6126	**4.4057**
	TPY	11.7700	0.1496	0.2991	0.0150				7.0631	**19.2968**
PM_{10}	lb/hr	0.0924	0.0031	0.0062	0.0003				0.0052	**0.1072**
	TPY	0.4047	0.0135	0.0271	0.0014				0.0228	**0.4694**
$PM_{2.5}$	lb/hr	0.0924	0.0023	0.0046	0.0002				0.0052	**0.1048**
	TPY	0.4047	0.0101	0.0203	0.0010				0.0228	**0.4590**
SO_2	lb/hr	0.0028	0.0002	0.0005	0.00002				0.0052	**0.0088**
	TPY	0.0123	0.0011	0.0021	0.0001				0.0228	**0.0384**

Alta Mesa Services
ML Investments 1-11 Well Site
Idaho Section 585 Toxic Air Pollutants

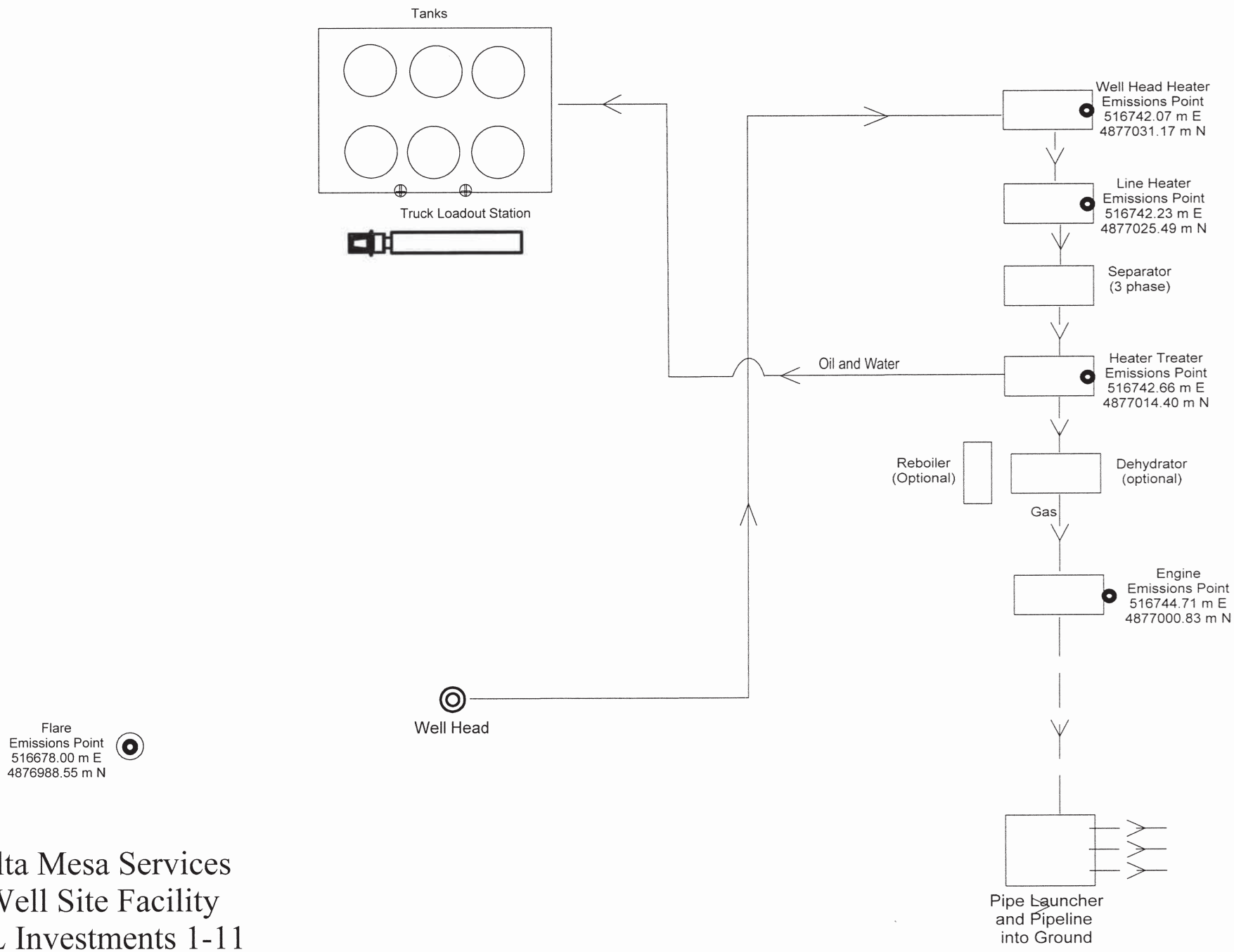
Source Description		Engine	Line Heater	Heater Treater	Well Head Heater	Water Tanks	Oil Tanks	Loading	Flare	Summary of Emissions	Summary of Non-NSPS, Non-NESHAP Emissions
Source Information		Caterpillar G398TA Type Engine - 610 hp	0.5 MMbtu/hr	1.0 MMbtu/hr	0.05 MMbtu/hr	4 Tanks at 80 BWPD (No Control)	10 Tanks at 500 BOPD (95% Control)	500 BOPD (98% Control)	Flare at 100 MSCFD		
EPNs		ENG1	LNHTR1	HTRTR1	WHHTR1	WTRTNK1-4	OILTNK1-10	LOAD1	FLR1		
Acetaldehyde	lb/hr	0.0398								0.0398	0.0000
	TPY	0.1743								0.1743	0.0000
Benzene	lb/hr	0.0075	8.54E-07	1.71E-06	8.54E-08	0.0001	0.0030	0.0002	0.0002	0.0110	0.0004
	TPY	0.0329	3.74E-06	7.48E-06	3.74E-07	0.0005	0.0130	0.0002	0.0007	0.0473	0.0009
Benzo(e)pyrene	lb/hr	0.000002								0.000002	0.0000
	TPY	0.00001								0.00001	0.0000
1,3-Butadiene	lb/hr	0.0032								0.0032	0.0000
	TPY	0.0138								0.0138	0.0000
Carbon Tetrachloride	lb/hr	0.0002								0.0002	0.0000
	TPY	0.0008								0.0008	0.0000
Chloroform	lb/hr	0.0001								0.0001	0.0000
	TPY	0.0006								0.0006	0.0000
1,1-Dichloroethane	lb/hr	0.0001								0.0001	0.0000
	TPY	0.0005								0.0005	0.0000
1,2-Dichloroethane	lb/hr	0.0001								0.0001	0.0000
	TPY	0.0005								0.0005	0.0000
1,3-Dichloropropene	lb/hr	0.0001								0.0001	0.0000
	TPY	0.0006								0.0006	0.0000
Ethylene Dibromide	lb/hr	0.0002								0.0002	0.0000
	TPY	0.0009								0.0009	0.0000
Formaldehyde	lb/hr	0.2514	3.05E-06	6.10E-06	3.05E-07					0.2514	0.0000
	TPY	1.1009	1.34E-05	2.67E-05	1.34E-06					1.1010	0.0000
Methylene Chloroide	lb/hr	0.0002								0.0002	0.0000
	TPY	0.0009								0.0009	0.0000
PAH	lb/hr	0.0007								0.0007	0.0000
	TPY	0.0029								0.0029	0.0000
1,1,2,2-Tetrachloroethane	lb/hr	0.0002								0.0002	0.0000
	TPY	0.0008								0.0008	0.0000
1,1,2-Trichloroethane	lb/hr	0.0002								0.0002	0.0000
	TPY	0.0007								0.0007	0.0000
Vinyl Chloride	lb/hr	0.0001								0.0001	0.0000
	TPY	0.0003								0.0003	0.0000

Alta Mesa Services
ML Investments 1-11 Well Site
Idaho Section 586 Toxic Air Pollutants

Source Description		Engine	Line Heater	Heater Treater	Well Head Heater	Water Tanks	Oil Tanks	Loading	Flare	Summary of Emissions	Summary of Non-NSPS, Non-NESHAP Emissions
Source Information		Caterpillar G398TA Type Engine - 610 hp	0.5 MMbtu/hr	1.0 MMbtu/hr	0.05 MMbtu/hr	4 Tanks at 80 BWPD (No Control)	10 Tanks at 500 BOPD (95% Control)	500 BOPD (98% Control)	Flare at 100 MSCFD		
EPNs		ENG1	LNHTR1	HTRTR1	WHHTR1	WTRTNK1-4	OILTNK1-10	LOAD1	FLR1		
Acrolein	lb/hr	0.0245								0.0245	0.0000
	TPY	0.1072								0.1072	0.0000
Biphenyl	lb/hr	0.0010								0.0010	0.0000
	TPY	0.0044								0.0044	0.0000
Chlorobenzene	lb/hr	0.0001								0.0001	0.0000
	TPY	0.0006								0.0006	0.0000
Chloroethane	lb/hr	0.00001								0.00001	0.0000
	TPY	0.00004								0.00004	0.0000
Cyclohexane	lb/hr								0.000003	0.000003	0.0000
	TPY								0.00002	0.00002	0.0000
Cyclopentane	lb/hr	0.0011								0.0011	0.0000
	TPY	0.0047								0.0047	0.0000
1,2-Dichloropropane	lb/hr	0.0001								0.0001	0.0000
	TPY	0.0006								0.0006	0.0000
Ethylbenzene	lb/hr	0.0002				0.00004	0.0010	0.0001	0.0000	0.0013	0.0001
	TPY	0.0008				0.0001	0.0035	0.0000	0.0002	0.0047	0.0003
Heptane	lb/hr							0.0195	0.01367	0.0332	0.0332
	TPY							0.0155	0.0001	0.0156	0.0156
n-Hexane	lb/hr	0.0053						0.0122	0.0086	0.0261	0.0208
	TPY	0.0231						0.0097	0.0376	0.0705	0.0474
Methanol	lb/hr	0.0146								0.0146	0.0000
	TPY	0.0638								0.0638	0.0000
Methylcyclohexane	lb/hr	0.0059							0.000003	0.0059	0.0000
	TPY	0.0256							0.000014	0.0257	0.0000
Naphthalene	lb/hr	0.0005								0.0005	0.0000
	TPY	0.0020								0.0020	0.0000
n-Nonane	lb/hr	0.0005								0.0005	0.0000
	TPY	0.0023								0.0023	0.0000
n-Octane	lb/hr	0.0017								0.0017	0.0000
	TPY	0.0073								0.0073	0.0000
Pentanes	lb/hr	0.0124						0.0278	0.0195	0.0597	0.0473
	TPY	0.0542						0.0221	0.0852	0.1615	0.1073
Phenol	lb/hr	0.0001								0.0001	0.0000
	TPY	0.0005								0.0005	0.0000
Toluene	lb/hr	0.0027	0.000001	0.000003	0.0000001	0.0001	0.0035	0.0002	0.0002	0.0067	0.0005
	TPY	0.0116	0.000006	0.00001	0.000001	0.0005	0.0145	0.0002	0.0007	0.0276	0.0015
2,2,4-Trimethylpentane	lb/hr	0.0012						0.0006	0.0004	0.0022	0.0010
	TPY	0.0052						0.0005	0.0018	0.0075	0.0022
Xylene	lb/hr	0.0009				0.00008	0.0025	0.0002	0.0001	0.0038	0.0004
	TPY	0.0041				0.0004	0.0115	0.0001	0.0005	0.0166	0.0011

ATTACHMENT 6

PRELIMINARY PLOT PLAN



Alta Mesa Services
Well Site Facility
ML Investments 1-11
EPN Plot Plan