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G70-D GENERAL PERMIT ENGINEERING EVALUATION

PREVENTION AND CONTROL OF AIR POLLUTION IN REGARD TO THE CONSTRUCTION, MODIFICATION, RELOCATION, ADMINISTRATIVE UPDATE AND OPERATION OF NATURAL GAS PRODUCTION FACILITIES LOCATED AT THE WELL SITE

APPLICATION NO.: G70-D**268**

FACILITY ID: **017-00069**

CONSTRUCTION
 MODIFICATION
 RELOCATION

CLASS I ADMINISTRATIVE UPDATE
 CLASS II ADMINISTRATIVE UPDATE

BACKGROUND INFORMATION

Name of Applicant (as registered with the WV Secretary of State's Office): EQT Production Company

Federal Employer ID No. (FEIN): 25-0724685

Applicant's Mailing Address: 625 Liberty Avenue, Suite 1700

City: Pittsburgh

State: PA

ZIP Code: 15222

Facility Name: OXF-43

Operating Site Physical Address: Mudlick Run Road

If none available, list road, city or town and zip of facility.

City: Coxs Mills

Zip Code: 26342

County: Doddridge

Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits):

Latitude: 39.15703

Longitude: -80.79285

SIC Code: 1311

NAICS Code: 211111

Date Application Received:

June 12, 2017

Fee Amount: \$4,000.00

Date Fee Received: July 10, 2017

Applicant Ad Date: July 14, 2017

Newspaper: The Doddridge Independent

Date Application Complete: July 11, 2017

Due Date of Final Action: August 20, 2017

Engineer Assigned: Jonathan Carney

Description of Permitting Action:

The OXF-43 Natural Gas Production Site will be a new production site containing ten (10) wells and associated well equipment.

PROCESS DESCRIPTION

The following process description was taken from Registration Application G70-D268:

The applicant has filed this application for EQT Production Company and addresses operational activities associated with the OXF 43 natural gas production site. Incoming raw natural gas from the ten (10) natural gas wells enters the site through a pipeline. The raw gas is first routed through the sand traps to remove any sediment. Fluids from these sand traps are manually blown down to the sand trap blowdown tank (S022), as needed. From the sand traps, raw gas is routed through line heaters (S001-S010) to assist with the phase separation process in the downstream high pressure phase separators. In the high pressure phase separators, produced fluids are removed from the raw gas before being dumped to a second stage of fluid separation. The raw gas is then routed to the sales pipeline.

The produced fluids pass through a line heater (S011) to further assist in the separation process. At this low pressure separator, produced fluid pressure is reduced from 435 psig to 30 psig. Vapors realized at the low pressure separator will be directed to one of two compressor engines, one rated at 110 hp (S026) and the other rated at 405 hp (S025), based upon well production and will be routed to the sales gas pipeline. In order to provide a conservative estimate of the potential to emit (PTE) from the OXF 143 site, EQT has included the emissions from both of the engines in this permit application.

Produced fluids from the low pressure separator are routed to the produced fluids storage tanks (S012-S021). Emissions from the produced fluids tanks and sand trap blowdown tank are directed to one of the two enclosed combustion devices (C023 and C024) where the vapors will be combusted. In order to provide a conservative estimate of the PTE of VOCs from the storage tanks, EQT has modeled tank emissions without the low pressure separator described above.

Produced fluids are pumped into a tank truck (S027) on an as-needed basis and are disposed of off-site. Vapors during truck loading will be directed to either of the two enclosed combustion devices.

SITE INSPECTION

Site Inspection Date: August 8, 2017

Site Inspection Conducted By: Douglas Hammell

Results of Site Inspection: The inspector findings were as follows:

Site is suitable for G70-D268, Closest home is ~2000 ft west of pad (attached).

House at Grove-Summers / Mudlick is ~3000 ft SE

Site work was still underway at time of insp.

There was no early equip installation.

Did Applicant meet Siting Requirements? Yes

If applicable, was siting criteria waiver submitted?

Directions to Facility: NB- directions given in app (18-Grove-Summers-Mudlick) were not used:

S.Mudlick is undeveloped dirt road with locked farm gate (attached). My directions- Sunnyside to Oxford to

S.Fork Hughes River. Go 3.5 miles on S.Fork Hughes River to unnamed gravel road, Upper Rd / CR-23/5.

Turn South (R) onto Upper Rd (39.190424, -80.794924) and cross a bridge.

At 0.8 miles, there's an unnamed *triple fork. Go straight at triple fork another 2.4 miles to OXF 43

The upper-43 pad will be wells, lower-43 pad will be tank farm.



ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

The following table indicates which methodology was used in the emissions determination:

Emission Unit ID#	Process Equipment	Calculation Methodology (e.g. ProMax, GlyCalc, mfg. data, AP-42, etc.)
S001	Line Heater 1.54 MMBtu/hr	AP-42, 40 CFR 98 Subpart C
S002	Line Heater 1.54 MMBtu/hr	AP-42, 40 CFR 98 Subpart C
S003	Line Heater 1.54 MMBtu/hr	AP-42, 40 CFR 98 Subpart C
S004	Line Heater 1.54 MMBtu/hr	AP-42, 40 CFR 98 Subpart C
S005	Line Heater 1.54 MMBtu/hr	AP-42, 40 CFR 98 Subpart C
S006	Line Heater 1.54 MMBtu/hr	AP-42, 40 CFR 98 Subpart C
S007	Line Heater 1.54 MMBtu/hr	AP-42, 40 CFR 98 Subpart C
S008	Line Heater 1.54 MMBtu/hr	AP-42, 40 CFR 98 Subpart C
S009	Line Heater 1.54 MMBtu/hr	AP-42, 40 CFR 98 Subpart C
S010	Line Heater 1.54 MMBtu/hr	AP-42, 40 CFR 98 Subpart C
S011	Line Heater 1.54 MMBtu/hr	AP-42, 40 CFR 98 Subpart C
S012	Produced Fluids Tank 400 bbl	ProMax, AP-42, 40CFR98
S013	Produced Fluids Tank 400 bbl	ProMax, AP-42, 40CFR98
S014	Produced Fluids Tank 400 bbl	ProMax, AP-42, 40CFR98
S015	Produced Fluids Tank 400 bbl	ProMax, AP-42, 40CFR98
S016	Produced Fluids Tank 400 bbl	ProMax, AP-42, 40CFR98
S017	Produced Fluids Tank 400 bbl	ProMax, AP-42, 40CFR98
S018	Produced Fluids Tank 400 bbl	ProMax, AP-42, 40CFR98
S019	Produced Fluids Tank 400 bbl	ProMax, AP-42, 40CFR98
S020	Produced Fluids Tank 400 bbl	ProMax, AP-42, 40CFR98
S021	Produced Fluids Tank 400 bbl	ProMax, AP-42, 40CFR98
S022	Sandtrap Blowdown Tank 100 bbl	ProMax, 40CFR98
C023	Vapor Destruction Unit 19.22 MMBtu/hr	ProMax, AP-42
C024	Vapor Destruction Unit 11.66 MMBtu/hr	ProMax, AP-42
S025	Compressor Engine 405 hp (Mfg. Year 1999)	Mfg. Data, AP-42, 40CFR98
S026	Compressor Engine 110 hp (Mfg. Year 2015)	Mfg. Data, AP-42, 40CFR98
S027	Tank Truck Loading	ProMax, AP-42

The total facility PTE for the facility (excluding fugitive emissions) is shown in the following table:

Pollutant	Facility Wide PTE (tons/year)
Nitrogen Oxides	28.99
Carbon Monoxide	27.51
Volatile Organic Compounds	56.22
Particulate Matter	0.14
Particulate Matter-10/2.5	0.14
Sulfur Dioxide	0.12
Formaldehyde	0.39
Total HAPs	2.50
Carbon Dioxide Equivalent	37,513.35

Maximum detailed controlled point source emissions were calculated by the applicant and checked for accuracy by the writer and are summarized in the table on the next page.

APPLICANT: EQT Production Company **FACILITY NAME:** OXF-43 **G70-D268**

Emission Point ID#	NO _x		CO		VOC		SO ₂		PM ₁₀		PM _{2.5}		Methane		GHG (CO ₂ e)	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Line Heater (E001)	0.13	0.56	0.11	0.47	<0.01	0.03	<0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	180.33	789.85
Line Heater (E002)	0.13	0.56	0.11	0.47	<0.01	0.03	<0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	180.33	789.85
Line Heater (E003)	0.13	0.56	0.11	0.47	<0.01	0.03	<0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	180.33	789.85
Line Heater (E004)	0.13	0.56	0.11	0.47	<0.01	0.03	<0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	180.33	789.85
Line Heater (E005)	0.13	0.56	0.11	0.47	<0.01	0.03	<0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	180.33	789.85
Line Heater (E006)	0.13	0.56	0.11	0.47	<0.01	0.03	<0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	180.33	789.85
Line Heater (E007)	0.13	0.56	0.11	0.47	<0.01	0.03	<0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	180.33	789.85
Line Heater (E008)	0.13	0.56	0.11	0.47	<0.01	0.03	<0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	180.33	789.85
Line Heater (E009)	0.13	0.56	0.11	0.47	<0.01	0.03	<0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	180.33	789.85
Line Heater (E010)	0.13	0.56	0.11	0.47	<0.01	0.03	<0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	180.33	789.85
Line Heater (E011)	0.13	0.56	0.11	0.47	<0.01	0.03	<0.01	<0.01	<0.01	0.01	<0.01	0.01	<0.01	0.01	180.33	789.85
VDU (E023)	1.77	7.75	1.49	6.51	6.37	26.84	0.01	0.05	0.03	0.15	0.03	0.15	1.10	6.64	3,484.88	15,259.35
VDU (E024)	1.07	4.71	0.90	3.95	6.37	26.84	<0.01	0.03	0.01	0.04	0.01	0.04	1.08	4.57	2599.62	11381.91
Compressor Engine (E025)	2.13	9.31	2.21	9.70	0.10	0.43	<0.01	<0.01	0.03	0.14	0.03	0.15	<0.01	0.03	383.24	1,678.59
Compressor Engine (E026)	0.24	1.03	0.49	2.14	0.16	0.71	<0.01	<0.01	0.01	0.04	0.01	0.04	<0.01	<0.01	104.09	455.91
Tank Truck Loading Operations (E027)	-	-	-	-	0.24	1.05	-	-	-	-	-	-	0.01	0.06	0.37	1.61
TOTAL	6.64	28.96	6.30	27.47	13.24	56.20	0.01	0.08	0.08	0.48	0.08	0.49	2.19	11.41	8,555.83	37465.72

APPLICANT: EQT Production Company **FACILITY NAME:** OXF-43 **G70-D268**

Emission Point ID#	Formaldehyde		Benzene		Toluene		Ethylbenzene		Xylenes		Hexane		Total HAPs	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Line Heater (E001)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
Line Heater (E002)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
Line Heater (E003)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
Line Heater (E004)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
Line Heater (E005)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
Line Heater (E006)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
Line Heater (E007)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
Line Heater (E008)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
Line Heater (E009)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
Line Heater (E010)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
Line Heater (E011)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
VDU (E023)	<0.01	<0.01	<0.01	<0.01	0.01	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.21	0.98
VDU (E024)	<0.01	<0.01	<0.01	<0.01	0.01	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.21	0.98
Compressor Engine (E025)	0.07	0.30	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.33
Compressor Engine (E026)	0.02	0.08	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.09
Tank Truck Loading Operations (E027)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
TOTAL	0.09	0.38	<0.01	0.02	0.02	0.12	<0.01	<0.01	<0.01	0.04	0.42	1.74	0.56	2.49

REGULATORY APPLICABILITY

45CSR2 (Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers)

The purpose of 45CSR2 (Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers) is to establish emission limitations for smoke and particulate matter which are discharged from fuel burning units.

45CSR2 states that any fuel burning unit that has a heat input under ten (10) MMBTU/hr is exempt from Sections 4 (weight emission standard), 5 (control of fugitive particulate matter), 6 (registration), 8 (testing, monitoring, recordkeeping, reporting) and 9 (startups, shutdowns, malfunctions). However, failure to attain acceptable air quality in parts of some urban areas may require the mandatory control of these sources at a later date. If the individual heat input of all of the proposed fuel burning units are below 10 MMBTU/hr, these units are exempt from the aforementioned sections of 45CSR2. However, the registrant would be subject to the opacity requirements in 45CSR2, which is 10% opacity based on a six minute block average. Fuel burning units greater than 10 MMBTU/hr are ineligible for registration under General Permit G70-D

Emission Unit ID#	Emission Unit Description	Maximum Design Heat Input (MDHI) (MMBTU/hr)
E001	Line Heater	1.54
E002	Line Heater	1.54
E003	Line Heater	1.54
E004	Line Heater	1.54
E005	Line Heater	1.54
E006	Line Heater	1.54
E007	Line Heater	1.54
E008	Line Heater	1.54
E009	Line Heater	1.54
E010	Line Heater	1.54
E011	Line Heater	1.54

45CSR6 (To Prevent and Control Air Pollution from the Combustion of Refuse)

45CSR6 prohibits open burning, establishes emission limitations for particulate matter, and establishes opacity requirements. Sources subject to 45CSR6 include completion combustion devices, enclosed combustion devices, and flares.

The facility-wide requirements of the general permit include the open burning limitations §§45-6-3.1 and 3.2.

All completion combustion devices, enclosed combustion devices, and flares are subject to the particulate matter weight emission standard set forth in §45-6-4.1; the opacity requirements in §§45-6-4-3 and 4-4; the visible emission standard in §45-6-4.5; the odor standard in §45-6-4.6; and, the testing standard in §§45-6-7.1 and 7.2.

Enclosed combustion control devices and flares that are used to comply with emission standards of NSPS, Subpart OOOO are subject to design, operational, performance, recordkeeping and reporting requirements of the NSPS regulation that meet or exceed the requirements of 45CSR6.

Emission Unit ID#	Maximum Design Heat Input (MDHI) (MMBTU/hr)	Subject to Weight Emission Standard?	Control Efficiency Claimed by Registrant	Provide Justification how 45CSR6 is met.
S025	19.22	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	98	The combustor has minimal particulate matter emissions. Therefore, the combustor should demonstrate compliance with this section. The facility will demonstrate compliance by maintaining records of the amount of natural gas consumed by the combustor and the hours of operation. The facility will also monitor the flame of the combustor and record any malfunctions that may cause no flame to be present during operation
S026	11.66	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	98	The combustor has minimal particulate matter emissions. Therefore, the combustor should demonstrate compliance with this section. The facility will demonstrate compliance by maintaining records of the amount of natural gas consumed by the combustor and the hours of operation. The facility will also monitor the flame of the combustor and record any malfunctions that may cause no flame to be present during operation

45CSR10 (To Prevent and Control Air Pollution from the Emission of Sulfur Oxides)

45CSR10 establishes emission limitations for SO₂ emissions which are discharged from stacks of fuel burning units. A "fuel burning unit" means and includes any furnace, boiler apparatus, device, mechanism, stack or structure used in the process of burning fuel or other combustible material for the primary purpose of producing heat or power by indirect heat transfer. Sources that meet the definition of "Fuel Burning Units" per 45CSR10-2.8 include GPUs, in-line heaters, heater treaters, and glycol dehydration unit reboilers.

Fuel burning units less than 10 MMBtu/hr are exempt. The sulfur dioxide emission standard set forth in 45CSR10 is generally less stringent than the potential emissions from a fuel burning unit for natural gas. The SO₂ emissions from a fuel burning unit will be listed in the G70-D permit registration at the discretion of the permit engineer on a case-by-case basis. Issues such as non-attainment designation, fuel use, and amount of sulfur dioxide emissions will be factors used in this determination. Fuel burning units greater than 10 MMBTU/hr are ineligible for registration under General Permit G70-D

Fuel burning units burning natural gas are exempt from Section 8 (Monitoring, Recording and Reporting) as well as interpretive rule 10A. The G70-D eligibility requirements exclude from eligibility any fuel burning unit that does not use natural gas as the fuel; therefore, there are no permit conditions for 45CSR10.

Emission Unit ID#	Emission Unit Description	Maximum Design Heat Input (MDHI) (MMBTU/hr)
E001	Line Heater	1.54
E002	Line Heater	1.54
E003	Line Heater	1.54
E004	Line Heater	1.54
E005	Line Heater	1.54
E006	Line Heater	1.54
E007	Line Heater	1.54
E008	Line Heater	1.54

E009	Line Heater	1.54
E010	Line Heater	1.54
E011	Line Heater	1.54

45CSR13 (Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, and Procedures for Evaluation)

45CSR13 applies to this source due to the fact that the applicant is defined as a “stationary source” under 45CSR13 Section 2.24.b. *Stationary source* means, for the purpose of this rule, any building, structure, facility, installation, or emission unit or combination thereof, excluding any emission unit which meets or falls below the criteria delineated in Table 45-13B which: (a) is subject to any substantive requirement of an emission control rule promulgated by the Secretary; (b) discharges or has the potential to discharge more than six (6) pounds per hour and ten (10) tons per year, or has the potential to discharge more than 144 pounds per calendar day, of any regulated air pollutant; (c) discharges or has the potential to discharge more than two (2) pounds per hour or five (5) tons per year of hazardous air pollutants considered on an aggregated basis; (d) discharges or has the potential to discharge any air pollutant(s) listed in Table 45-13A in the amounts shown in Table 45-13A or greater; or, (e) an owner or operator voluntarily chooses to be subject to a construction or modification permit pursuant to this rule, even though not otherwise required to do so. 45CSR13 has an original effective date of June 1, 1974.

The applicant meets the definition of a stationary source because (check all that apply):

- Subject to a substantive requirement of an emission control rule promulgated by the Secretary.
- Discharges or has the potential to discharge more than six (6) pounds per hour and ten (10) tons per year, or has the potential to discharge more than 144 pounds per calendar day, of any regulated air pollutant.
- Discharges or has the potential to discharge more than two (2) pounds per hour or five (5) tons per year of hazardous air pollutants considered on an aggregated basis.
- Discharges or has the potential to discharge any air pollutant(s) listed in Table 45-13A in the amounts shown in Table 45-13A or greater.
- Voluntarily chooses to be subject to a construction or modification permit pursuant to this rule, even though not otherwise required to do so.

General Permit G70-D Registration satisfies the construction, modification, relocation and operating permit requirements of 45CSR13. General Permit G70-D sets forth reasonable conditions that enable eligible registrants to establish enforceable permit limits.

Section 5 of 45CSR13 provides the permit application and reporting requirements for construction of and modifications to stationary sources. No person shall cause, suffer, allow or permit the construction, modification, relocation and operation of any stationary source to be commenced without notifying the Secretary of such intent and obtaining a permit to construct, modify, relocate and operate the stationary source as required in the rule or any other applicable rule promulgated by the Secretary.

If applicable, the applicant meets the following (check all that apply):

- Construction
- Modification
- Class I Administrative Update (45CSR13 Section 4.2.a)
- Class II Administrative Update (45CSR13 Section 4.2.b)

45CSR16 (Standards of Performance for New Stationary Sources Pursuant to 40 CFR Part 60)

45CSR16 applies to all registrants that are subject to any of the NSPS requirements described in more detail in the Federal Regulations section. Applicable requirements of NSPS, Subparts IIII, JJJJ and OOOO are included in General Permit G70-D.

The applicant is subject to:

- 40CFR60 Subpart IIII
- 40CFR60 Subpart JJJJ
- 40CFR60 Subpart OOOO
- 40CFR60 Subpart OOOOa

45CSR22 (Air Quality Management Fee Program)

45CSR22 is the program to collect fees for certificates to operate and for permits to construct or modify sources of air pollution. 45CSR22 applies to all registrants. The general permit fee of \$500 is defined in 45CSR13. In addition to the application fee, all applicants subject to NSPS requirements or NESHAP requirements shall pay additional fees of \$1,000 and \$2,500, respectively.

Registrants are also required to obtain and have in effect a valid certificate to operate in accordance with 45CSR22 §4.1. The fee group for General Permit G70-D is 9M (all other sources) with an annual operating fee of \$200.

40CFR60 Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines)

Subpart IIII sets forth non-methane hydrocarbon (NMHC), hydrocarbon (HC), nitrogen oxides (NOx), carbon monoxide (CO), and particulate matter (PM) emission limits, fuel requirements, installation requirements, and monitoring requirements based on the year of installation of the subject internal combustion engine. The provisions for stationary compression ignition (CI) internal combustion engines for owners or operators of this Subpart have been included in General Permit G70-D, Section 13. The following CI engines are subject to this section:

The facility does not contain an affected source (compression ignition engine) and is therefore not subject to this subpart.

40CFR60 Subpart JJJJ (Standards of Performance for Stationary Spark Ignition Internal Combustion Engines)

Subpart JJJJ sets forth nitrogen oxides (NOx), carbon monoxide (CO), and volatile organic compound (VOC) emission limits, fuel requirements, installation requirements, and monitoring requirements based on the year of installation of the subject internal combustion engine. The provisions for stationary spark ignition (SI) internal combustion engines for owners or operators of this Subpart have been included in General Permit G70-D, Section 13.

Emission Unit ID#	Engine Description (Make, Model)	Engine Size (HP)	Date of Manufacture	Provide Justification how 40CFR60 Subpart JJJJ is met.
S026	Ford/CSG-637	110	2015	<input checked="" type="checkbox"/> Met Emission Standard <input type="checkbox"/> Certified Engine

40CFR60, Subpart OOOO (Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced after August 23, 2011, and on or before September 18, 2015)

EPA published its New Source Performance Standards (NSPS) and air toxics rules for the oil and gas sector on August 16, 2012. EPA published amendments to the Subpart on September 23, 2013 and June 3, 2016.

40CFR60 Subpart OOOO establishes emission standards and compliance schedules for the control of volatile organic compounds (VOC) and sulfur dioxide (SO₂) emissions from affected facilities that commence construction, modification or reconstruction after August 23, 2011 and on or before September 18, 2015. The affected sources which commence construction, modification or reconstruction after August 23, 2011 and on or before September 18, 2015 are subject to the applicable provisions of this Subpart as described below:

Gas well affected facilities are included in General Permit G70-D in Section 5.0.

Are there any applicable gas well affected facilities? Yes No

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.

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.

Pneumatic controllers affected facilities are included in General Permit G70-D, Section 10.0.

Are there any applicable pneumatic controller affected facilities? Yes No

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.

Requirements for storage vessel affected facilities are included in General Permit G70-D, Section 7.0. Determination of storage vessel affected facility status is included in Section 6.0 of General Permit G70-D.

Are there any applicable storage vessel affected facilities? Yes No

If No, list any emission reduction devices and control efficiencies used to avoid 40CFR60 Subpart OOOO.

The facility does not contain an affected source (storage vessel constructed, modified or reconstructed after August 23, 2011, and on or before September 18, 2015) and is therefore not subject to this subpart.

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.

40CFR60, Subpart OOOOa (Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced after September 18, 2015)

EPA published its New Source Performance Standards (NSPS) and air toxics rules for the oil and gas sector on August 16, 2012. EPA published amendments to the Subpart on September 23, 2013 and June 3, 2016.

40CFR60 Subpart OOOOa establishes emission standards and compliance schedules for the control of the pollutant greenhouse gases (GHG). The greenhouse gas standard in this subpart is in the form of a limitation on emissions of methane from affected facilities in the crude oil and natural gas source category that commence construction, modification or reconstruction after September 18, 2015. This subpart also establishes emission standards and compliance schedules for the control of volatile organic compounds (VOC) and sulfur dioxide (SO₂) emissions from affected facilities that commence construction, modification or reconstruction after September 18, 2015. The effective date of this rule is August 2, 2016.

For each well site, the registrant must reduce GHG (in the form of a limitation on emissions of methane) and VOC emissions by complying with fugitive emissions monitoring as required in §60.5397a and the alternative means of emission limitations in §60.5398a.

Gas well affected facilities are included in General Permit G70-D in Section 5.0.

Are there any applicable gas well affected facilities? Yes No

If Yes, list.

API Number	Date of Flowback	Date of Well Completion	Green Completion and/or Combustion Device	Subject to OOOOa?
047-017-06739	TBD	TBD	Green Completion	OOOOa
047-017-06740	TBD	TBD	Green Completion	OOOOa
047-017-06741	TBD	TBD	Green Completion	OOOOa
047-017-06742	TBD	TBD	Green Completion	OOOOa
047-017-06744	TBD	TBD	Green Completion	OOOOa
047-017-06745	TBD	TBD	Green Completion	OOOOa
047-017-06747	TBD	TBD	Green Completion	OOOOa
047-017-06746	TBD	TBD	Green Completion	OOOOa
047-017-06748	TBD	TBD	Green Completion	OOOOa
PLANNED	TBD	TBD	Green Completion	OOOOa

Each centrifugal compressor affected facility, which is a single centrifugal compressor using wet seals. 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.

Each reciprocating compressor affected facility, which is a single reciprocating compressor. 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.

Pneumatic controllers affected facilities are included in General Permit G70-D, Section 10.0.

Are there any applicable pneumatic controller affected facilities? Yes No

Each pneumatic controller affected facility not located at a natural gas processing plant, which is a single continuous bleed natural gas-driven pneumatic controller operating at a natural gas bleed rate greater than 6 scfh.

Requirements for storage vessel affected facilities are included in General Permit G70-D, Section 7.0.

Are there any applicable storage vessel affected facilities? Yes No

If No, list any emission reduction devices and control efficiencies used to avoid 40CFR60 Subpart OOOOa.

The storage tank VOC emissions will be controlled to less than 6 tpy. The vapors from the storage vessels will be sent to an enclosed combustor control device having a control efficiency of 98%.

Each storage vessel affected facility, which is a single storage vessel with the potential for VOC emissions equal to or greater than 6 tpy as determined according to this section.

Fugitive Emissions GHG and VOC Standards affected facilities are included in General Permit G70-D in Section 12.0.

Did the registrant commence construction, modification, or reconstruction of the well site after September 18, 2015 and is subject to §60.5397a? Yes No

For the purposes of §60.5397a, a "modification" to a well site occurs when a new well is drilled at an existing well site, a well at an existing well site is hydraulically fractured, or a well at an existing well site is hydraulically refractured.

A well site that only contains one or more wellheads is not an affected facility under this subpart. The affected facility status of a separate tank battery surface site has no effect on the affected facility status of a well site that only contains one or more wellheads.

Requirements for pneumatic pump affected facilities are included in General Permit G70-D, Section 16.0.

Are there any applicable pneumatic pump affected facilities at the well site? Yes No

Each pneumatic pump affected facility at the well site, which is a single natural gas-driven diaphragm pump. A single natural gas-driven diaphragm pump that is in operation less than 90 days per calendar year is not an affected facility under this subpart as well as the required records are kept.

40CFR63 Subpart HH (National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities)

This Subpart applies to owners and operators of each triethylene glycol (TEG) dehydration unit that are located at oil and natural gas production facilities. Only area source requirements are included in General Permit G70-D, as defined in §63.761.

For area source applicability, the affected source includes each triethylene glycol (TEG) dehydration unit located at a facility that meets the criteria specified in §63.760(a).

Glycol dehydration unit(s) are included in General Permit G70-D, Section 15.0.

Are there any TEG dehydration unit(s) at this facility? Yes No

Are the TEG dehydration unit(s) located within an Urbanized Area (UA) or Urban Cluster (UC)?
 Yes No

Are the glycol dehydration unit(s) exempt from 40CFR63 Section 764(d)? Yes No

If Yes, answer the following questions:

The actual annual average flowrate of natural gas to the glycol dehydration unit(s) is less than 85 thousand standard cubic meters per day, as determined by the procedures specified in §63.772(b)(1) of this Subpart. Yes No

The actual average emissions of benzene from the glycol dehydration unit process vent(s) to the atmosphere are less than 0.90 megagram per year (1 ton per year), as determined by the procedures specified in §63.772(b)(2) of this Subpart. Yes No

40CFR63 Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines)

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. This section reflects EPA's final amendments to 40 CFR part 63, Subpart ZZZZ that were issued on January 15, 2013 and published in the Federal Register on January 30, 2013.

WVDEP DAQ has delegation of the area source air toxics provisions of this Subpart requiring Generally Achievable Control Technology (GACT). The provisions of this Subpart have been included in this general permit under Section 13.0.

Emission Unit ID#	Engine Description (Make, Model)	Engine Size (HP)	Date of Manufacture	New or Existing under 40CFR63 Subpart ZZZZ?	Provide Justification how 40CFR63 Subpart ZZZZ is met.
S025	Caterpillar G3408TA	405	1999	Existing	The engine is equipped with NSCR

Are there any engines that fall in the window of being new under 40CFR60 Subpart ZZZZ but manufactured before the applicability date in 40CFR60 Subpart JJJJ? Yes No

If so, list the engines:

SOURCE AGGREGATION DETERMINATION

“Building, structure, facility, or installation” is defined as all the pollutant emitting activities which belong to the same industrial grouping, are located on one or more contiguous and adjacent properties, and are under the control of the same person.

Is there equipment and/or activities used for onshore oil and natural gas production that are located on the same site, or on sites that share equipment and are within ¼ mile of each other?

Yes No

Is this equipment and/or activities under “common control”?

Yes No

Do these facilities share the same two (2) digit SIC code?

Yes No

Final Source Aggregation Decision.

Source not aggregated with any other source.

Source aggregated with another source. List Company/Facility Name:

RECOMMENDATION TO DIRECTOR

The information provided in the permit application, including all supplemental information received, indicates the applicant meets all the requirements of applicable regulations and the applicant has shown they meet the eligibility requirements of General Permit G70-D. Therefore, impact on the surrounding area should be minimized and it is recommended that the facility should be granted registration under General Permit G70-D.

Permit Engineer Signature: _____

Name and Title: Jonathan Carney

Date: August 14, 2017