Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone (304) 926-0475
Fax (304) 926-0479

west virginia department of environmental protection

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

G70-C 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-C118D**	FACILITY ID: **085-00043**

- ☐ 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): Antero Resources Corporation

Federal Employer ID No. (FEIN): 80-0162034

Applicant's Mailing Address: 1615 Wynkoop Street

City: Denver	State: CO	ZIP Code: 80202

Facility Name: Kelly Well Pad

Operating Site Physical Address: 2475 Mountain Drive
If none available, list road, city or town and zip of facility.

City: Pennsboro	Zip Code: 26415	County: Ritchie

Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits):
Latitude: 39.31432
Longitude: -80.96267

SIC Code: 1311 NAICS Code: 211111	Date Application Received: July 13, 2016
Fee Amount: $1,500	Date Fee Received: July 14, 2016
Applicant Ad Date: July 20, 2016	Newspaper: The Pennsboro News
Date Application Complete: August 12, 2016	Due Date of Final Action: September 27, 2016

Engineer Assigned: Thornton E. Martin Jr.

Description of Permitting Action: Decrease in production, removal of Kubota engine, addition of 2 high pressure VRU engines, addition of 2 low pressure VRU engines, addition of 2 vapor recovery towers, and addition of 1 Cimarron enclosed combustor.

PROCESS DESCRIPTION

The following process description was taken from Registration Application G70-C118D:

A mixture of condensate, water, and entrained gas from the condensate and gas wells enters the facility through a series of line heaters (LH001-008) and gas production units (GPU001-GPU008) which are 3-phase separators where the gas, condensate, and produced water are separated. The line heaters and GPUs are fueled by a slip stream of the separated gas.

The gas from the three phase separators is metered and sent to the sales gas pipeline. Water flow to the produced water storage tanks (TANKPW001-002). The condensate is then sent to two phase low pressure separators where gas is separated. The gas is routed to the high pressure VRU driven by gas fueled engines (ENG001-002), compressed, metered and sent to the sales gas line. The condensate from the two phase separators then flows to the vapor recovery towers (VRT001-002) where gas is further separated. Gas from the VRTs is recovered via the low pressure VRU driven by gas fueled engines (ENG003-004), compressed, metered and sent to the sales gas line through the high pressure compressors. The condensate from the VRTs flows to the condensate storage tanks (TANKSCOND001-008). The line heaters are only used during the first several months from start of production and will be removed once production has normalized.

The facility has ten (10) tanks (TANKCOND001-010) on site to store condensate and two (2) tanks (TANKPW001-002) to store produced water prior to removal from the site. The flashing, working and breathing losses from the tanks are routed to three enclosed combustors (EC001-003) to control the emissions. The enclosed combustor(s) that will be used to control emissions are designed to achieve a VOC destruction efficiency of 98 percent.

Condensate and produced water are transported off site on an as needed basis via tanker truck. Truck loading connections are in place to pump condensate (L001) and produced water (L002) from the storage tanks into tanker trucks. Emissions from the loading operations are vented to the atmosphere.

Emissions from the facility's emission sources were calculated using the extended analysis of the condensate and gas from Hendershot No. 2H, one of the wells from the Charlene Well Pad. These extended analyses are considered representative of the materials from the Kelly Well Pad, being in the same Marcellus rock formation.

SITE INSPECTION

Site Inspection Date: September 15, 2015
Site Inspection Conducted By: Douglas Hammell
Results of Site Inspection: G70-A118 approved 2-20-15. Unannounced initial inspection after permit issued, site work but no construction yet. No issues.
Did Applicant meet Siting Requirements? Yes
If applicable, was siting criteria waiver submitted? N/A
Directions to Facility: Travel on US-50W for 36.3 miles. Turn right onto WV-74 N/Pullman Drive. Go 0.4 miles. Turn left onto E. Myles Ave./Old US 50 E., go 0.7 miles. Turn right onto Main St., go 600 ft., make sharp right onto Wells Ave., go 0.1 miles. Take left onto 1st St., go 308 ft., continue onto WV-74 N/Mountain drive, go 2.5 miles. The facility is on the left.
Overhead Google Earth Image of Facility:

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.)
GPU001-GPU008	(8) GPU Heaters	AP-42
LH001-LH008	(8) Line Heaters	AP-42
TANKCOND001-010	(10) Condensate Tanks	Tanks & ProMax
TANKPW001-002	(2) Produced Water Tanks	Tanks & ProMax
L001-L002	Condensate and Prod. Water Loading	AP-42
EC001-EC003	(3) Enclosed Combustors	AP-42
ENG001-ENG004	(4) Compressor Engines	Manufacturer Data & AP-42

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

Pollutant	Facility Wide PTE (tons/year)	PTE Change for Modification (tons/year)
Nitrogen Oxides	11.1473	5.4073
Carbon Monoxide	16.4154	-11.9646
Volatile Organic Compounds	51.4136	-19.3564
Particulate Matter-10	1.714	-0.226
Particulate Matter-2.5	0.8745	-0.5055
Sulfur Dioxide	0.0649	0.0049
Formaldehyde	0.2604	0.2304
Total HAPs	2.6635	-0.7765
Carbon Dioxide Equivalent	14957.116	-7179.884

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: Antero Resources Corporation **FACILITY NAME:** Kelly Well Pad **G70-C118D**

Emission Point ID#	NO_x		CO		VOC		SO_2		PM_{10}		$PM_{2.5}$		GHG (CO_2e)	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
EP-HR001	--	--	--	--	--	--	--	--	1.5341	0.8302	--	--	--	--
EP-PCV	--	--	--	--	0.0948	0.4152	--	--	--	--	--	--	7.1667	31.3900
F001	--	--	--	--	3.0338	13.2879	--	--	--	--	--	--	63.5958	278.5497
EP-(ENG001-ENG004)	0.2422	1.0608	1.8134	7.9427	0.0834	0.3653	0.0017	0.0073	0.0268	0.1172	0.0268	0.1172	326.1380	1428.4846
EP-(GPU001-GPU008)	0.9394	4.1144	0.7891	3.4561	0.0517	0.2263	0.0056	0.0247	0.0714	0.3127	0.0714	0.3127	1127.2203	4937.2248
EP-(LH001-LH008)	1.2525	5.4858	1.0521	4.6081	0.0689	0.3017	0.0075	0.0329	0.0952	0.4169	0.0952	0.4169	1502.9604	6582.9664
EP-L001	--	--	--	--	53.0064	28.2552	--	--	--	--	--	--	3.0593	1.6308
EP-L002	--	--	--	--	0.0022	0.0008	--	--	--	--	--	--	0.7933	0.2956
EP-(EC001-EC003)	0.1110	0.4863	0.0933	0.4085	1.9546	8.5612	--	--	0.0084	0.0370	0.0063	0.0277	387.3457	1696.5743
TOTAL	2.5451	11.1473	3.7479	16.4154	58.2958	51.4136	0.0148	0.0649	1.7359	1.714	0.1997	0.8745	3418.2795	14957.116

APPLICANT: Antero Resources Corporation **FACILITY NAME:** Kelly Well Pad **G70-C118D**

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
EP-HR001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-PCV	--	--	--	--	--	--	--	--	--	--	0.0103	0.0451	0.0103	0.0451
F001	--	--	0.0021	0.0092	0.0129	0.0564	0.0128	0.0561	0.0349	0.0153	0.0267	1.1700	0.3299	1.4449
EP-(ENG001-ENG004)	0.0578	0.2530	0.0045	0.0195	0.0016	0.0069	0.0001	0.0003	0.0005	0.0024	--	--	0.0647	0.2833
EP-(GPU001-GPU008)	0.0007	0.0031	--	--	--	0.0001	--	--	--	--	0.0169	0.0741	0.0413	0.1807
EP-(LH001-LH008)	0.0010	0.0043	--	0.0001	--	--	--	--	--	--	0.0225	0.0987		
EP-L001	--	--	0007	0.0004	0.0045	0.0024	0.0034	0.0018	0.0085	0.0045	0.0360	0.0192	0.0377	0.0201
EP-L002	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-(EC001-EC003)	--	--	0.0004	0.0017	0.0011	0.0049	0.0004	0.0021	0.0010	0.0046	0.0154	0.0676	0.1574	0.6894
TOTAL	0.0595	0.2604	7.007	0.0309	0.0201	0.0707	0.0167	0.0603	0.0449	0.0268	0.1278	1.4747	0.6413	2.6635

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-C

Emission Unit ID#	Emission Unit Description	Maximum Design Heat Input (MDHI) (MMBTU/hr)
GPU001-GPU008	(8) GPU Heaters	1.50
LH001-LH008	(8) Line Heaters	2.00

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.
EC001-EC003	12.0	X Yes ☐ No	98	Assuming 20,000 BTU/lb, the allowable PM emissions are 1.63 lb/hr. Using AP-42, the PM emissions were calculated to be <0.01 lb/hr.

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

45CSR10 establishes emission limitations for SO_2 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 SO_2 emissions from a fuel burning unit will be listed in the G70-C 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-C

Fuel burning units burning natural gas are exempt from Section 8 (Monitoring, Recording and Reporting) as well as interpretive rule 10A. The G70-C 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)
GPU001-GPU008	(8) GPU Heaters	1.50
LH001-LH008	(8) Line Heaters	2.00

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-C Registration satisfies the construction, modification, relocation and operating permit requirements of 45CSR13. General Permit G70-C 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):

☐ Relocation
☒ 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-C.

The applicant is subject to:
☐ 40CFR60 Subpart IIII
☒ 40CFR60 Subpart JJJJ
☒ 40CFR60 Subpart OOOO

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-C 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-C, Section 13. The following CI engines are subject to this section:

Emission Unit ID#	Engine Description (Make, Model)	Engine Size (HP)	Date of Manufacture	Provide Justification how 40CFR60 Subpart IIII is met.
N/A				☐ Met Emission Standard ☐ Certified Engine

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-C, Section 13.

Emission Unit ID#	Engine Description (Make, Model)	Engine Size (HP)	Date of Manufacture	Provide Justification how 40CFR60 Subpart JJJJ is met.
ENG001-ENG002	(2) Ford MSG-425	68	2015	☐ Met Emission Standard ☒ Certified Engine
ENG003-ENG004	(2) Ford CSG-637	98	2016	☐ Met Emission Standard ☒ Certified Engine

40CFR60, Subpart OOOO (Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution)

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

40CFR60 Subpart OOOO 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. The affected sources which commence construction, modification or reconstruction after August 23, 2011 are subject to the applicable provisions of this Subpart as described below:

Gas well affected facilities are included in General Permit G70-C in Section 5.0.
Are there any applicable gas well affected facilities? ☐ Yes ☐ No
If Yes, list.

API number(s) for each Gas Well at this facility	Date the Gas Well was drilled or re-fractured
047-085-10162-00	Completion 2/01/17
047-085-10168-00	Completion 2/01/17
047-085-10194-00	Completion 2/01/17
047-085-10233-00	Completion 2/01/17
(4) Additional Not Permitted	--

Centrifugal compressor affected facilities are included in General Permit G70-C, Section 11.0.
Are there any applicable centrifugal compressor affected facilities not located at the well site?
☐ Yes X No
If Yes, list.

Engine Description (Make, Model)
N/A

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.

Reciprocating compressor affected facilities are included in General Permit G70-C, Section 12.0.
Are there any applicable reciprocating compressor affected facilities not located at the well site?
☐ Yes X No
If Yes, list.

Engine Description (Make, Model)
N/A

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-C, Section 10.0.
Are there any applicable pneumatic controller affected facilities? ☐ Yes X 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-C, Section 7.0. Determination of storage vessel affected facility status is included in Section 6.0 of General Permit G70-C.
Are there any applicable storage vessel affected facilities? ☐ Yes X No
If No, list any emission reduction devices and control efficiencies used to avoid 40CFR60 Subpart OOOO.
EC001-EC003, (3) 12.0 MMBtu/hr Enclosed Combustors, 98% Control Efficiency

If Yes, list.

Emission Unit ID#	Storage Vessel Description	SV Size (gal)	Provide Justification how 40CFR60 Subpart OOOO is met.
N/A			

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.

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 areas source requirements are included in General Permit G70-C, as defined in §63.761.

For area source applicability, the affected source includes each trietheylene 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-C, Section 15.0.

Are there any TEG dehydration unit(s) at this facility? ☐ Yes X 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.
ENG001-ENG002	(2) Ford MSG-425	68	2015	New	JJJJ Certified
ENG003-ENG004	(2) Ford CSG-637	98	2016	New	JJJJ Certified

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 X No

If so, list the engines: N/A

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.

Are there surrounding wells or compressor stations under "common control" of the applicant?
X Yes ☐ No

Are the properties in question located on "contiguous or adjacent" properties?
☐ Yes X No

Are there surrounding facilities that share the same two (2) digit SIC code?
X 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-C. Therefore, impact on the surrounding area should be minimized and it is recommended that the facility should be granted registration under General Permit G70-C.

Permit Engineer Signature: Thornton E. Martin Jr.
Name and Title: Thornton E. Martin Jr., Permit Engineer, NSR Permitting
Date: August 12, 2016