

Fact Sheet



For Final Significant Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

This Fact Sheet serves to address the changes specific to this Significant Modification, and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on September 18, 2018.

Permit Number: **R30-06900107-2018**
Application Received: **September 5, 2018**
Plant Identification Number: **069-00107**
Permittee: **Appalachia Midstream Services, L.L.C.**
Facility Name: **Battle Run Compressor Station**
Mailing Address: **100 Teletech Drive, Suite 2; Moundsville, WV 26041-2352**

Permit Action Number: *SM01* Revised: *February 26, 2019*

Physical Location:	Valley Grove, Ohio County, West Virginia
UTM Coordinates:	536.535 km Easting • 4,436.030 km Northing • Zone 17
Directions:	Heading east in I-70 from Wheeling, take exit 11. Turn left onto Dallas Pike and go 0.1 miles. Turn right onto Alexander Rd and go 0.2 miles. Turn left onto Windmill Truckers road and go 0.3 miles. The facility is straight ahead.

Facility Description

This facility is a natural gas compressor station (SIC Code: 1389). This facility currently uses twelve (12) 1,380 hp Compressor engines, one (1) 605 hp generator, three (3) 55 mmscf/d dehydrators, three (3) 1.0 MMBTU/hr reboilers, two (2) heat treater burners, and ten (10) storage tanks. Control devices include oxidation catalysts, Non-Selective Catalytic Reduction (NSCR), condensers, vapor recovery units, and carbon canisters.

This modification is for the installation of a new 5,000 hp Caterpillar compressor engine (Emission Point ID: EPCE-13) and a new 49 hp, Kohler Emergency Generator (Emission Point ID: EP-GEN1). Additionally, there are changes to the rod packing (Emission Point ID: EPCR), compressor blowdown (Emission Point ID: EPBD), emergency shutdown testing (Emission Point ID: EPBD), engine crankcase

(Emission Point ID: EPECC), pigging operation (Emission Point ID: EPPIG), produced water tanks (Emission Point ID: EPWTK9-10), and piping and equipment leak emissions (Emission Point ID: EPFUG). These changes were approved under R13-2916C on September 29, 2018.

Emissions Summary

With this modification, this facility's Potential to Emit (PTE) increased as follows:

Pollutant	Increase in PTE (TPY)
CO	26.75
NO _x	21.58
VOC	32.12
PM ₁₀ /TSP	1.64
SO ₂	0.10
Formaldehyde	1.74
Total HAPs	2.45

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit 115.51 TPY of CO, 109.3 TPY of NO_x, and 231.44 TPY of VOCs. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Appalachia Midstream Services, L.L.C. is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR13	NSR permit
	45CSR16	New stationary sources.
	45CSR30	Operating permit requirement.
	45CSR34	Emission Standards for Hazardous Air Pollutants.
	40 C.F.R. Part 60, Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.
	40 C.F.R. Part 60, Subpart OOOOa	Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution (After 9/18/2015).
	40 C.F.R. Part 63, Subpart ZZZZ	National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of

the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
R13-2916C	9/29/2018	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

Determinations and Justifications

Emission Units Table

The following changes were made to the Emission Units Table:

- The new 5,000 hp Caterpillar compressor engine (Emission Point ID: EPCE-13) was added.
- The new 49 hp Kohler Emergency Generator (Emission Point ID: EP-GEN1) was added.
- The Produced Water Storage Tanks' Emission Unit and Emission Point IDs were updated.
- A Vapor Recovery Unit (VRU) is now listed as a control device for the Produced Water Storage Tanks.
- The design capacities were updated for the Compressor Blowdown/Emergency Shutdown Tests, Pigging Operations, Piping & Equipment Leaks, and Engine Crankcase Fugitives.
- Pollutant, control device, and control efficiencies were added for the Produced Water Storage Tanks, the new Caterpillar compressor engine, and the existing Baldor generator.

40CFR60, Subpart JJJJ: SI RICE NSPS

The new 5,000 hp Caterpillar compressor engine (Emission Point ID: EPCE-13) and 49 hp Kohler Emergency Generator (Emission Point ID: EP-GEN1) are subject to this subpart. They are also subject to 40CFR63, Subpart ZZZZ (RICE MACT), but compliance is demonstrated through compliance with 40CFR60, Subpart JJJJ. The only new requirements added to this permit were emissions standards and operating requirements for emergency engines and monitoring requirements for non-certified engines.

EPCE-13 is not a certified engine, and EP-GEN1 is a certified engine. Both engines are subject to maintenance requirements and must keep maintenance records. EP-GEN1 must also use a non-resettable hour meter to ensure that it does not operate in excess of permitted limits. EPCE-13 must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years.

The following new permit conditions were added to include R13-2916C and 40CFR60, Subpart JJJJ requirements for the new Caterpillar Engine and Kohler Generator:

Title V Permit Condition	Summary of Condition	Regulatory Citation	R13-2916C Condition
4.1.2.	Caterpillar Engine emission limits	N/A	5.1.2.
4.1.4.	Kohler Generator emission limits	N/A	5.1.4.
4.1.8.	Kohler Generator maximum annual operation	N/A	5.1.8.
5.1.3.	40CFR60, Subpart JJJJ emissions standards	45CSR16; 40CFR§60.4233(d)	6.2.2.
5.1.7.	Emergency RICE operating requirements	45CSR16; 40CFR§60.4243(d)	N/A
5.1.8.	Non-resettable hour meter	45CSR16; 40CFR§60.4237(c)	N/A
5.2.1.a.2.i.	Maintenance plan and records of maintenance: engines rated less than 100 HP	45CSR16; 40CFR§§60.4243(a)(2)(i) and (b)(1)	6.4.1.
5.2.1.b.	Maintenance plan and records of maintenance: engines rated above 500 HP	45CSR16; 40CFR§§60.4243(b)(2) and (b)(2)(ii)	6.4.1.
5.4.2.	Emergency RICE hour meter	45CSR16; 40CFR§60.4245(b)	6.6.1.b.

Section 6.0: 40CFR60, Subpart OOOO/OOOOa Requirements [emission point ID(s): EPCE-1—EPCE-13]

This section was revised to include EPCE-13. EPCE-1—EPCE-12 are subject to 40CFR60, Subpart OOOO. However, EPCE-13 is subject to 40CFR60, Subpart OOOOa. A notation was added at the beginning of Section 6.0 to clarify the applicability of 40CFR60, Subparts OOOO and OOOOa. The language in these subparts are generally very similar requiring minor revisions to existing permit language and citations to incorporate the requirements of 40CFR60, Subpart OOOOa. However, the reporting requirements found in 40CFR§§60.5420a(b)(1), (4), which apply to EPCE-13, were added as condition 6.5.3. These requirements are similar to existing condition 6.5.2, however the language was different enough to justify the addition of a new permit condition.

Additionally, it has been determined that the pneumatic controller requirements of 40CFR60, Subparts OOOO and OOOOa do not apply to this facility (see Non-Applicability Determinations). Therefore all pneumatic controller requirements were removed.

Section 12.0: Source-Specific Requirements (40CFR60 Subpart OOOOa Requirements, Fugitive Emission Components)

This is a new section added with this modification since the addition of EPCE-13 made the facility subject to 40CFR60, Subpart OOOOa for fugitive emission components. This section’s requirements are as follows:

Title V Permit Condition	Summary of Condition	Regulatory Citation	R13-2916C Condition
12.1.1	GHG (methane) and VOC emissions reduction through fugitive emissions monitoring plans	45CSR16; 40 C.F.R. § 60.5397a	14.1.1.
12.2.1.	Initial compliance demonstration period/schedule	45CSR16; 40 C.F.R. § 60.5410a	14.2.1.
12.2.2.	Initial compliance with fugitive emissions standards	45CSR16; 40 C.F.R. § 60.5410a(j)	14.2.2.
12.2.3.	Continuous compliance demonstration	45CSR16; 40 C.F.R. § 60.5415a(h)	14.3.1.
12.4.1.	Recordkeeping requirements	45CSR16; 40 C.F.R. § 60.5420a(c)(15)	14.4.3.
12.5.1.	Notification requirements	45CSR16; 40 C.F.R. § 60.5420a(a)	14.4.1.
12.5.2.	Reporting requirements	45CSR16; 40 C.F.R. §§ 60.5420a(b)(1) and (7)	14.4.2.

Additional Permit Changes

- The citation in conditions 3.1.10, 9.1.3., 9.1.4., 9.2.3., and 9.4.5. were revised to say “45CSR§13-5.10” instead of “45CSR§13-5.11”.
- Emission Points EPCE-13 and EP-GEN1 (The Caterpillar Engine and Kohler Generator) were added to the headings in Sections 4.0 and 5.0.
- The emission limits for EUCRP were modified in condition 4.1.5.
- Emission Unit EUCE-13 (the Caterpillar Engine) was added to condition 4.1.7.
- References to the Produced Water Tanks (Emission Point ID: EPWTK-9 and EPWTK-10) were added to conditions, 9.1.1., 9.1.3., and 9.1.4.
- References to TK-1—TK-8, WTK-1, and WTK-2 were changed to EUTK-1—EUTK-8, EUWTK-9, and EUWTK-10.
- Condition 11.1.1. was revised to include a limit to the number of yearly compressor blowdown events for EPCE-13.
- Condition 11.1.2. was revised to include a limit to the total number of pigging events instead of wet gas pigging events.
- Condition 11.1.3, which limited dry gas pigging events, was removed.
- Various citations and references were adjusted throughout the permit to account for the new Title V and NSR permit conditions.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

- a. 40 C.F.R. Part 60, Subpart OOOO—Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution (After 8/23/2011 and Before 9/18/2015). This rule does not apply to the pneumatic controllers because they are compressed air driven. (40CFR§60.5365(d)(1))
- b. 40 C.F.R. Part 60, Subpart OOOOa—Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution (After 9/18/2015). This rule does not apply to the pneumatic controllers because they are compressed air driven. (40CFR§60.5365a(d)(1))

Request for Variances or Alternatives

None.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: Wednesday, January 9, 2019
Ending Date: Friday, February 8, 2019

Point of Contact

All written comments should be addressed to the following individual and office:

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Division of Air Quality
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Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Response to Comments (Statement of Basis)

Not applicable.