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west virginia department of environmental protection

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# Response to Public Comment

## Class II General Permit G70-D

For the 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

Date: September 30, 2016

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## **BACKGROUND INFORMATION**

During the week of July 18, 2016, pursuant to §45-13-8, the West Virginia Division of Air Quality (DAQ) provided notice to the public of a preliminary determination to issue General Permit G70-D for the 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. At that time, the draft permit and Engineering Evaluation/Fact Sheet were made available to the public for review.

The public notice was followed by a public comment period (required to be a minimum of 30 days under §45-13-8) scheduled to end at 5:00 P.M. on August 22, 2016. During the public comment period, the DAQ accepted comments on our preliminary determination to issue General Permit G70-D and on all documents related thereto.

## **OVERVIEW OF COMMENTS RECEIVED**

The DAQ received written comments during the public comment period. Comments were received by and/or on behalf of the following individuals, groups, and organizations: United States Environmental Protection Agency and Antero Resources. Pursuant to §45-13-8.8, all submitted comments received during the public comment period have been reviewed and are appropriately addressed in this document.

## **ORGANIZATION OF COMMENT RESPONSE**

The specific responses summarize each relevant comment that falls within the purview of the DAQ and provides a response to it. This document does not reproduce all the comments here (they are available for review in the G70-D file). Instead, each comment is summarized and key points are listed. The DAQ makes no claim that the summaries are complete; they are provided only to place the responses in a proper context. For a complete understanding of submitted comments, please see the original documents in the file. The DAQ responses, however, are directed to the entire comments and not just to what is summarized. Comments that are not directly identified and responded to in the specific response section of this document are assumed to be answered under the general response section.

## **GENERAL RESPONSE TO COMMENTS**

### ***Statutory Authority of the DAQ***

The statutory authority of the DAQ is given under the Air Pollution Control Act (APCA) - West Virginia Code §22-5-1, *et. seq.* - which states, under §22-5-1 (“Declaration of policy and purpose”), that:

It is hereby declared the public policy of this state and the purpose of this article to achieve and maintain such levels of air quality as will protect human health and safety, and to the greatest degree practicable, prevent injury to plant and animal life and property, foster the comfort and convenience of the people, promote the economic and social development of this state and facilitate the enjoyment of the natural attractions of this state.

### ***DAQ Permitting Process in Context***

It is important to note that the DAQ permitting process is but one part of a system that works to meet the intent of the APCA in WV. The DAQ maintains a Compliance/Enforcement (C/E) Section, an Air Monitoring Section, a Planning Section, *etc.* to effect this. Most pertinent to the permitting process, the C/E Section regularly inspects permitted sources to determine the compliance status of the facility including compliance with all testing, monitoring, record-keeping, and reporting requirements.

### ***General Response Conclusion***

In conclusion, in response to any substantive non-air quality issues, the APCA and 45CSR13 does not grant the DAQ the authority to take into consideration such issues in determining to issue or deny the permit. Further, the requirements of 45CSR13 require the DAQ to, when denying a permit, explicitly state the reason pursuant to §45-13-5.7. Additionally, the permit is but the beginning of the involvement of the DAQ with a source. After issuance, the facility will receive regular inspections to determine compliance with the requirements as outlined in the applicable permit.

## **RESPONSES TO COMMENTS**

### **COMMENT #1**

Permit Requirement 6.3.1. To demonstrate compliance with section 1.1.1 - 1.1.3 of this general permit, the registrant shall maintain a record of the aggregate throughput for the storage vessel(s) that contains condensate and/or produced water on a monthly and rolling twelve (12) month total. Alternatively, recording the monthly and rolling twelve (12) month total of condensate and/or produced water loaded into tanker trucks from the storage vessels according to section 14.2.1 can be used to demonstrate compliance. Said records shall be maintained in accordance with section 3.5.1 of this general permit.

This applicable requirement does not demonstrate compliance with section 1.1.1 - 1.1.3 of this general permit because it does not address the maximum annual facility emissions limit for nitrogen oxides, carbon monoxide, particulate matter and sulfur dioxide and volatile organic compounds; rather it only addresses storage vessel(s) that contain condensate and/or produced water. Add language that contain details of monitoring requirements to assure compliance with the limits in the table in section 1.1.1 and the limits in 1.1.2.

**Received From:** United States Environmental Protection Agency (USEPA)

### **DAQ Response**

Permit requirement 1.1.4 requires all registrants to prepare and submit a G70-D Annual Certification for the previous year. This certification must address the potential emissions from the facility and an updated Emissions Units/ERD/APCD table. Permit requirement 1.1.4 assures that sections 1.1.1 – 1.1.3 are being met.

### **DAQ Action**

Permit requirement 6.3.1 will be amended to remove the first part of sentence 1. The permit requirement now reads:

*The registrant shall maintain a record of the aggregate throughput for the storage vessel(s) that contains condensate and/or produced water on a monthly and rolling twelve (12) month total. Alternatively, recording the monthly and rolling twelve (12) month total of condensate and/or produced water loaded into tanker trucks from the storage vessels according to section 14.2.1 can be used to demonstrate compliance. Said records shall be maintained in accordance with section 3.5.1 of this general permit.*

### **COMMENT #2**

The applicable NAICS /SIC codes shown in the Fact Sheet do not agree with the applicable NAICS/SIC codes shown in the draft general permit.

**Received From:** USEPA

### **DAQ Response**

The DAQ agrees.

### **DAQ Action**

The NAICS/SIC codes in the Fact Sheet have been changed to match those in General Permit G70-D.

**COMMENT #3**

Fact Sheet pg. 2: These general permits will continue to exist, however, there will be no future registrations, modifications, or administrative updates allowed to registrations issued under this permit. If a registrant wishes to modify an existing registration under one of these general permits, it must be done so under General Permit G70-D.

EPA Comment: EPA disagrees with this language regarding modifications being allowed to the General Permit. This language appears to allow facility/site specific modifications to the General Permit itself. This appears to be incorrect. The general permit option was to allow similar facilities to become eligible under a generic permit. As such, there can be no facility/site specific modifications done to the general permit. Any proposed modification to the general permit must first go through public comment, and upon approval by the agency, must apply to all applicants eligible for a general permit. The agency must change the above referenced language from the permit and make it clear that facilities needing site specific applicable requirements must be included in a plan approval and are not eligible for a general permit.

**Received From:** USEPA

**DAQ Response**

The modification that the Fact Sheet references is “modification” as defined in 45CSR13 Section 2.17. The General Permit itself would not be modified unless the proper public notice procedures were followed.

**DAQ Action**

None.

**COMMENT #4**

Permit requirement 3.6.3. Correspondence. All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, e-mailed or mailed first class with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

EPA Comment: Notice requirements under this section should provide for electronic submission of notifications if WVDAQ and U.S. Environmental Protection Agency provides Cross-Media Electronic Reporting Regulations (CROMERR) approval for electronic notifications under this General Permit

**Received From:** USEPA

**DAQ Response**

General Permit G70-D does not provide for electronic notifications.

**DAQ Action**

None.

#### **COMMENT #5**

The draft general permit contains no provisions to address equipment leaks. The language in the permit on page 2 contains the following; *"The applicability of General Permit G70-D may include any of the following: gas wells and associated equipment, natural gas-fired spark ignition internal combustion engines, diesel-fired compression ignition internal combustion engines, storage vessels/tanks, glycol dehydration units and associated equipment, **equipment leaks**, truck loading/unloading operations, pneumatic pumps and pneumatic controllers.*

EPA has recommended in several recent title V permits for compressor stations (*See Enclosure, EPA comments on proposed Transco Jackson Station expansion*) and we recommend that similar language be considered for the draft of G70-D. This recommended language was developed with concurrence from EPA Region 3, Office of Regional Counsel.

**Received From:** USEPA

#### **DAQ Response**

Section 12.0 of General Permit G70-D provides Source Specific Requirements for fugitive GHG and VOC standards under 40CFR60 Subpart OOOOa.

#### **DAQ Action**

None.

#### **COMMENT #6**

Permit Requirement 13.5. NSPS and NESHAP Submittals under Section A, Condition 18(b), language should include the caveat, "unless such reporting requirements mandate or allow for electronic reporting."

**Received From:** USEPA

#### **DAQ Response**

The permit requirement as written states that the registrant shall comply with all applicable notifications under these rules. Therefore, if these rules mandate or allow for electronic reporting, then it is allowed.

#### **DAQ Action**

None.

#### **COMMENT #7**

Permit Requirement 8.4.3: For the purpose of demonstrating compliance with the visible emissions and opacity requirements, the registrant shall maintain records of the visible emission opacity tests and checks. The registrant shall maintain records of all monitoring data required by section 8.3.1 of this general permit documenting the date and time of each visible emission check, the emission point or equipment/ source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned.

EPA Comment: This section does not assure compliance with visible emissions and opacity requirements because there are no requirements to perform visible emissions and opacity tests other than initially within 180 days of startup. The permit must implement the requirements as described in 8.3.1.i-iii on a regular basis during the permit term.

**Received From:** USEPA

**DAQ Response**

Permit requirement 8.3.1.iii requires that at any time visible emissions are observed the registrant shall conduct opacity tests in accordance with Method 9 or 40CFR60 Appendix A.

**DAQ Action**

None.

**COMMENT #8**

Permit Requirement 8.4.5.ii: If you are subject to the bypass requirements, the following records shall also be maintained:

- (a) Each inspection or each time the key is checked out or a record of each time the alarm is sounded;.....

EPA Comment: The permit should provide provisions to help the permittee determine if they are subject to the above requirements.

**Received From:** USEPA

**DAQ Response**

The permit application asks the applicant whether or not bypasses will be utilized. General Permit G70-D permit requirement 2.9.1 states that the registered facility shall be constructed and operated in accordance with the information filed in the General Permit Registration Application, alternative operating scenario notifications per section 1.1.3 of this general permit, any amendments thereto or facility changes that do not meet the definition of modification as defined in 45CSR13. Therefore, the facility would be aware to these requirements.

**DAQ Action**

None.

**COMMENT #9**

Permit Requirement 13.1. Limitations and Standards

EPA Comment: The permit should show the required source-specific emission levels for existing IC engines based on limitations and standards found in NSPS for Stationary Compression Ignition Internal Combustion Engines specified in 40 CFR Part 60, Subpart IIII, Stationary Spark Ignition Internal Combustion Engines specified in 40 CFR Part 60, Subpart JJJJ, and/or the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Spark Ignition Internal Combustion Engines specified in 40 CFR Part 63, Subpart ZZZZ.

**Received From:** USEPA

**DAQ Response**

General Permit G70-D Section 13.0 states that the registrant shall comply with these requirements under permit requirement 13.1.3.



### **DAQ Action**

None.

### **COMMENT #10**

Permit requirements 13.2, 13.3, 13.4,13.5

EPA Comment: Permit should show the specific applicable requirements from NSPS for Stationary Compression Ignition Internal Combustion Engines specified in 40 CFR Part 60, Subpart IIII, Stationary Spark Ignition Internal Combustion Engines specified in 40 CFR Part 60, Subpart JJJJ, and/or the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Spark Ignition Internal Combustion Engines specified in 40 CFR Part 63, Subpart ZZZZ. as each citation relates to each of the above sections.

General EPA Comment:

Each testing method, work standard, calculation, or in general any requirement in the general permit that is based on an NSPS or MACT Standard should at the very least refer to the specific applicable standard within the NSPS or MACT standard.

**Received From:** USEPA

### **DAQ Response**

General Permit G70-D Section 13.0 states that the registrant shall comply with these requirements under permit requirement 13.1.3. Representing the information as permit requirement 13.1.3 eliminates the need for updating General Permit G70-D every time one of these rules change. Furthermore, copying and pasting every requirement under these rules does not help clarify these requirements to the registrant.

### **DAQ Action**

None.

### **COMMENT #11**

Permit condition 8.1.2.5

Antero recommends that the maximum design heat input (MDHI) for all registered flares or enclosed combustion devices be increased to 60 MMBTU/hr. Antero uses many different types of process equipment and control devices, including vapor recovery towers and vapor recovery units, to capture the majority of flashing gas and minimize VOC emissions. This reduces the pressure and volume of flash gas going to combustors. The flare or enclosed combustion device is designed to eliminate 98% of VOC emissions. Operation of the flare or enclosed combustion device results in minimal emissions of NO<sub>x</sub> and CO. Increasing the MDHI for enclosed combustion devices to 60 MMBTU/hr would not exceed the maximum annual emissions limits for VOCs, NO<sub>x</sub>, or CO specified in Section 1.1.1 of the general permit.

To minimize our footprint, future well pads will have a higher number of wells on a pad than in the past. In some cases up to 14 wells will be located on a single pad. Also, depending on the area of development/production, the gas may be richer in nature than previously produced in West Virginia having a heating value as high as 1350 BTU/scf. This means more condensate will be produced and delivered to the production tanks. This results in more gas flashing in the tanks from

the higher volume of liquid under very low tank pressure conditions. This requires additional flare or enclosed combustion devices to minimize VOC emissions from these tanks.

The general permit establishes a limit based upon the MDHI of the flare or enclosed combustion device. The engineering goal is to reduce the pressure in the condensate tanks results in lower emissions. However, the operational capacity of each combustor is limited by the pressure the burner receives. The pressure to the flare or enclosed combustion device burner is controlled by the thief hatch and relief valve pressure settings. As a result of the decrease in pressure to the flare or enclosed combustion device burner, combustors typically may operate at 60% of the MDHI of the flare or enclosed combustion device. The above listed conditions require additional combustor capacity on site.

Antero understands that the permitting of additional combustor capacity can be achieved through the use of an individual permit. However, Antero prefers to use the general permit because, it allows for the flexibility to change onsite equipment as operational conditions change without having to wait several months for a permit modification.

**Received From:** Antero Resources

### **DAQ Response**

The purpose of the modification to General Permit G70-D was to incorporate the New Source Performance Standards of 40CFR60 Subparts OOOO and OOOOa. The MDHI of applicable flares or enclosed combustion devices was previously increased from 30 MMBTU/hr to 36 MMBTU/hr as a result of General Permit G70-C.

General Permit G70-B was issued on November 2, 2015. The general permit was appealed on December 1, 2015 by the West Virginia Oil and Natural Gas Association (WVONGA) and Antero Resources Corporation (Antero). The issues of the appeal included permit conditions that pertained to flare and/or enclosed combustion device sizing.

Permit condition 8.1.2.5 of General Permit G70-B limited the total maximum design heat input (MDHI) of flares and/or enclosed combustion devices to 30 MMBTU/hr. During the development of this language for General Permit G70-B, the DAQ did not regularly encounter flares and/or enclosed combustion devices that exceeded 30 MMBTU/hr. However, this has become a more common industry practice which would make the use of the general permit impossible for some registrants. General Permit G70-C was issued on June 1, 2016, which included increasing the MDHI from 30 to 36 MMBTU/hr.

The DAQ has rarely encountered facilities that would have flares or enclosed combustion devices whose total MDHI would exceed 36 MMBTU/hr. The goal of a general permit is to cover a large number of sources for a specific industry type, but will never be able to cover all sources. If in the future, these types of sources become common, the DAQ will re-evaluate this issue and act accordingly.

### **DAQ Action**

None.

## **COMMENT #12**

### Conversion of Permits

Antero suggests the agency provide a streamlined process identified as part of the issuance of the permit to allow for conversion of permits from the General Permit G70-A, General Permit G70-B, and/or General Permit G70-C to the General Permit G70-D where applicable and particularly when there is no additional equipment being proposed and no change in emissions making the request almost a strictly and administrative request. Antero would suggest a process similar to an administrative update which would allow for the easy conversion of permits so that they fall within their proper respective categories.

**Received From:** Antero Resources

### **DAQ Response**

As currently posted on the DAQ website, General Permit G70-A will continue to exist, however, there will be no future registrations, modifications, or administrative updates allowed to registrations issued under this permit. If a registrant wishes to modify an existing registration under General Permit G70-A, it must be done so under General Permit G70-C. Any registrations issued under General Permit G70-B will be covered under General Permit G70-C (no further action required by applicant). This will also be the case with the issuance of General Permit G70-D.

### **DAQ Action**

None.

## **FINAL SUMMARY**

As a result of comments received, the following changes were made:

- Permit condition 6.3.1 was changed to remove the first part of sentence 1. The permit requirement now reads:

*The registrant shall maintain a record of the aggregate throughput for the storage vessel(s) that contains condensate and/or produced water on a monthly and rolling twelve (12) month total. Alternatively, recording the monthly and rolling twelve (12) month total of condensate and/or produced water loaded into tanker trucks/rail cars from the storage vessels according to section 14.2.1 can be used to demonstrate compliance. Said records shall be maintained in accordance with section 3.5.1 of this general permit.*

- The NAICS/SIC codes in the Fact Sheet have been changed to match those in General Permit G70-D.
- The word “rail car” was added to both the Fact Sheet and General Permit in all permit conditions where truck loading was referenced. Rail car loading is allowed under General Permit G70-D.
- Permit conditions 1.1.3.g and h were changed to include 40CFR63 Subpart ZZZZ as part of the Alternative Operating Scenarios for replacement engines.
- The word “oil well” was added to both the Fact Sheet and General Permit. Oil wells are allowed under General Permit G70-D.
- Permit condition 5.1.3 was changed to include vapor combustors and enclosed combustors.
- Permit conditions 13.1.3, 13.3.3, 13.4.1 and 13.5.1 were changed to allow compression ignition engines subject to 40CFR63 Subpart ZZZZ.