west virginia department of environmental protection

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Response to Public Comment

Class II General Permit G70-B

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: November 2, 2015

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BACKGROUND INFORMATION

During the week of July 20, 2015, 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-B 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 24, 2015. During the public comment period, the DAQ accepted comments on our preliminary determination to issue General Permit G70-B and on all documents related thereto. To provide information on the permitting action and to facilitate the submission of comments, the DAQ held, on August 13, 2015, pursuant to §45-13-9, a public meeting concerning General Permit G70-B at the WVDEP Headquarters located in Charleston, WV.

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: (1) United States Environmental Protection Agency; (2) West Virginia Oil and Natural Gas Association; (3) Noble Energy; (4) Yi Chen; (5) 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 DAQ's response to the submitted comments includes both a general and specific response section. The general response defines issues over which the DAQ has authority and by contrast, identifies those issues that are beyond the purview of the DAQ. The general response also describes the statutory basis for the issuance/denial of a permit, discusses the role of the pre-construction permitting process in the larger divisional goal of maintaining air quality in WV.

The specific response summarizes each relevant non-general 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-B 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 all commenters who referenced 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.

SPECIFIC RESPONSES TO COMMENTS

GENERAL COMMENTS

COMMENT #1
As an initial matter, WVONGA commends WVDAQ on the agency's willingness to explore a new, more flexible general permitting approach through the Draft General Permit. Establishing general permits that are **workable/feasible** is beneficial to both industry and WVDAQ, and WVONGA greatly appreciates the agency's cooperation and collaboration in developing a Draft General Permit that is protective of the environment, while also maximizing operational flexibility and reducing the administrative burden for both WVDAQ and the individual members of WVONGA that seek coverage under the permit. WVONGA believes that the proposed adoption of facility-wide emissions caps through the Draft General Permit represents a significant improvement in the general permitting process for oil and gas production facilities in West Virginia, in light of the uniquely dynamic nature of these operations and the frequency with which equipment changes must be made.
Received From: West Virginia Oil and Natural Gas Association (WVONGA)

DAQ Response
None.

DAQ Action
None.

COMMENT #2
Confused about the emission cap. To determine whether the facility is a major source or not, we still need to follow the 10/25 for HAPs and 100 tpy for anything else, including the fugitive in calculation.
Received From: Yi Chen, GHD

DAQ Response
This permit sets emission limits below major source thresholds; therefore, no major source would be eligible for registration under this General Permit.

Sources covered by this permit are not listed sources under 45CSR30, therefore, the fugitive regulated pollutant emissions of a stationary source shall not be considered in determining whether it is a major stationary source for the purposes of 45CSR30-2.26.b or for eligibility of this General Permit.

However, HAP fugitive emissions shall be included.

DAQ Action
None.

COMMENT #3
Is alternative operating scenarios notice a parallel option for Class I, II updates and modification for listed situations? Class I, II and modification requirements still have to be followed if not listed.

- And what's the supporting material required to accompany with the notice?
- Are there any following actions/steps required?
- Will it go through public notice or depending on the nature of the alternative operating?
- Is this an after-fact notice and there's no need to have the official approval from dep?

Received From: Yi Chen, GHD

DAQ Response

- No. Alternative operating scenario notifications must be made in writing, no later than fifteen (15) days after the actual startup as required in General Permit condition 1.1.3. If a change occurs that is not listed in General Permit condition 1.1.3 as an alternative operating scenario, the registrant will need to determine whether this change constitutes a Class I or II administrative update or a modification.

- The registrant would need to complete the Alternative Operating Scenario notification form which indicates which alternative operating scenario(s) occurred and provide an updated PTE.

- There are no public notices required for the alternative operating scenarios.

- No additional official approval of the alternative operating scenario is required by the DAQ.

DAQ Action
None.

COMMENT #4
The annual certification is more on the compliance side. It is not a permit renew, right?
Received From: Yi Chen, GHD

DAQ Response
The General Permit registration does not need to be renewed.

Annually from the date of G70-B registration issuance (or alternate date requested by the registrant and established in the G70-B Registration), the registrant shall prepare and submit a G70-B Annual Certification for the previous year, addressing the potential emissions from the facility (using a generally accepted model or calculation methodology) and an updated Emission Units/ERD/APCD table (if necessary). The registrant shall pay an annual $1,000 certification fee. The fee shall be paid by negotiable instrument made payable to the "DEP-Division of Air Quality."

DAQ Action
None.

COMMENT #5
Streamlining public commenting.
Noble appreciates the importance of stakeholder input regarding the permitting process and we remain committed to protecting the wellbeing of the communities in which we operate. Public commenting is designed to allow the public an opportunity to share views and concerns related to proposed construction or modification of air emission sources that have potential to impact the public. As the G70-B is already required to undergo public commenting, the public has been afforded the opportunity to participate fully in the air permitting process and ensure the permit meets all relevant requirements. Operators applying for registration under a general permit cannot modify any terms or condition of the general permit and must meet the eligibility and compliance requirements of the permit as written.

Accordingly, requiring registration-specific public commenting does not provide the public a meaningful opportunity to comment on the content or implementation of the general permit because no changes to the general permit are allowed without formal administrative process to update the general permit.

Registration-specific public notification creates the potential for significant delays that have been encountered through additional public notification requirements in response to the Department's technical review. Where changes are sought on behalf of the Department's technical review, resulting in minimal increases of emissions, Noble contends that levying additional burden of delay at the late stages of review is counterproductive to the efforts undertaken to streamline the process. Considering that these increases must be below the limits set forth in the proposed G70-B, duly published for comment, with supporting emissions documentation available publicly, Noble recommends that issuance of registration under the G70-B not be withheld, pending additional public notification.
Received From: Noble Energy

DAQ Response
This application notice is required under 45CSR13 Section 8.3, which requires that at the time of application for a Class II general permit, the applicant shall place a Class I legal advertisement in a newspaper of general circulation in the area where the source is or will be located. The purpose of a public notice is to provide information about the application to the general public.

DAQ Action
None.

COMMENT #6

Mobile/Temporary Tanks

The oil and gas industry uses many mobile tanks on a temporary basis during drilling, completion, production and midstream operations. In the midstream sector, mobile rental tanks hold fresh water used for hydrostatic testing and water removed from the pipeline after hydrostatic testing. These mobile tanks move with the associated operations, similar to the drilling rig and the completion equipment moving from site to site, and are not used for long-term storage. Due to the portable and temporary nature of these mobile tanks, Antero proposes to specifically exclude mobile tanks used for drilling, completion, production and midstream activities from the permit application and associated permitting requirements under the West Virginia air quality and permitting program.

This proposal is consistent with WV DAQ's Oil and Gas - Permitting & Enforcement Guidance (10-9-2014 by Robert Keatley) that indicates "Permanent Storage Tanks/Vessels shall obtain a permit prior to construction and installation" and further provides "Permanent Storage Tanks are 1intended' to be located at a site for 180 consecutive days or more" thus tanks intended to be on site less than 180 days should not be included in the permit application or associated permitting updates and should be explicitly exempted. However, Antero proposes that consistent with the recently adopted statutory changes by the Legislature to the Aboveground Storage Tank laws a permanent tank should be defined as one that is maintained on site for a period of 365 days. Therefore, tanks onsite less than 365 days should be excluded from the air permit application.

Antero also suggests that the Attachment L - Storage Tank Data Table specifically exclude materials such as lube oils with very low vapor pressures (<0.1mmHg at 20°C), because they emit de minimis VOCs.

Received From: Antero Resources

DAQ Response

This language is consistent with the 180 day requirement in 40CFR60 Subpart OOOO. Additionally, the comparison to the AST law is in error since the current legislation exempts the storage tanks included with your example.

DAQ Action

None.

COMMENT #7

Timing of Notifications

General Permit G70-A requires a 15 day notification for many requirements in the permit [Conditions 1.1.3, 2.19.1, 3.4.1.c., and 15.5.2]. Antero urges WVDEP to develop an online procedure for submitting these notifications within the required 15 days of the change.

Received From: Antero Resources

DAQ Response

There are no plans at this time to develop an online notification process.

DAQ Action
None.

COMMENT #8
Conversion of Permits
Antero believes there should be a streamlined process identified as part of the issuance of the permit to allow for the conversion of existing permits from the General Permit G70-A to the General Permit G70-B where applicable and particularly where there is no additional equipment being proposed and no change in emissions making the request almost a strictly an administrative request. Such a streamlined process is advantageous to both the permittee and the WVDEP as it removes any potential confusion regarding the proper permitting of a site and assures that activities which naturally fall within the confines of the new permit can be moved swiftly and without delay.

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
Conversion of a G70-A permit registration to a G70-B permit registration would require a modification permitting action. This is required in order for the proposed conversion to undergo permit review to ensure that all G70-B requirements will be met and to accommodate the required 45CSR13 public notice procedures.

DAQ Action
None.

GENERAL PERMIT G70-B COMMENTS

COMMENT #9

Permit condition 1.1.1.

A condition should be added to this General Permit to clarify that the emissions from all sources and associated air pollution control equipment located at a natural gas compression and/or processing facility and other sources determined by DAQ as a single source shall not equal or exceed any major source emissions threshold.

There should be a condition that requires the emissions from all sources and associated air pollution control equipment located at a natural gas compression and/or processing facility to be less than the major source thresholds on a 12-month rolling sum basis.

The permit needs to include a limit of 100,000 tons per year for Greenhouse gasses, expressed as carbon dioxide equivalent (CO_2e). While the major source applicability threshold for greenhouse gases has been deleted in response to the United States Supreme Court's Utility Air Regulatory Group (UARG) v. EPA decision, No. 12-1146 (June 23, 2014), the Best Available Control Technology Requirement for major sources subject to the Prevention of Significant Deterioration (PSD) will continue to apply to GHG emissions from any new or modified source that would be subject to PSD requirements for the emission of criteria pollutants. When a facility is subject to PSD for criteria pollutants, DAQ is required to apply PSD requirements for GHG emissions if the proposed new or major stationary source emits GHGs at least 75,000 tpy of CO_2e as specified in 40 CFR 51.166(b)(48)(iv). In such instances, authorizations to use G70-B would not be granted and a Plan Approval issued by the DEP for the construction or modification of the facility would be necessary. Use of G70-B is only approved for non-major facilities.

Received From: United States Environmental Protection Agency (USEPA)

DAQ Response

Permit condition 1.1.1 states the facility wide emission limits shall not exceed the values listed in the table. Furthermore, source aggregation is addressed with each application and an analysis is provided in the accompanying engineering evaluation/fact sheet in order to show registration applicability.

The DAQ agrees that compliance with the emission table is based on a 12-month rolling total sum.

General Permit G70-B limits the emissions from any registered facility below major PSD thresholds. Therefore, no registered source could become subject to PSD requirements. Therefore, CO_2e was not included in the emission table.

DAQ Action

Compliance language was added to permit condition 1.1.5 to state that compliance demonstration for sections 1.1.1 and 1.1.2 would be shown by maintaining records of the emissions on a rolling twelve (12) month total.

COMMENT #10
Permit condition 1.1.2.
A source which emits fugitive emissions of any HAP listed under section 112(b) of the Act must include fugitive HAP emissions from all emissions units at a source to determine if the source is a major HAP source without regard to whether the source falls within a listed source category. The facility must consider fugitives sources of some likely emitters of fugitive HAPs which include but are not limited to: pumps, valves, compressors, or flanges found at facilities which have a collection of storage tanks, and natural gas production facilities.
Received From: USEPA

DAQ Response
The DAQ agrees.

DAQ Action
The second sentence from permit condition 1.1.2 has been deleted.

Permit condition 1.1.2 now states:

The registered facility shall not exceed 8 tons per year for each individual Hazardous Air Pollutant (HAP) or 20 tons per year of aggregated HAPs. ~~The fugitive emissions of a stationary source shall not be considered in determining whether it is a major stationary source for the purposes of 45CSR30-2.26.b or for eligibility of this General Permit.~~

COMMENT #11
Permit condition 1.1.3.
Formaldehyde is a HAP produced by these facilities and thus the method of determining formaldehyde emissions should be noted in the permit as 40 CFR Part 63 Appendix A, Method 320 or Method 323 for all formaldehyde producing facilities besides enclosed combustion devices and flares.
Received From: USEPA

DAQ Response
The facility wide testing requirements included with permit condition 3.4 states that as per provisions in this permit or otherwise required by the DAQ, the registrant shall conduct necessary testing to demonstrate compliance. Additionally, 3.4.1.a states that on a source-specific basis, the DAQ may approve or specify additional testing or alternative testing for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority. Therefore, the DAQ believes this request is addressed through this requirement.

DAQ Action
None.

COMMENT #12
Permit Condition 1.1.3.
WVONGA supports the inclusion within the Draft General Permit of certain alternative operating scenarios that may be implemented by the permittee without a permit update, subject to the requirement to submit written notification to WVDAQ no later than 15 calendar days after active startup of that scenario. WVONGA believes that this approach greatly improves the flexibility of the permit and will avoid time-consuming and potentially costly delays in implementing many important changes at the permitted facility.
Received From: WVONGA

DAQ Response
None.

DAQ Action
None.

COMMENT #13
Permit Condition 1.1.4.
The Draft General Permit would require the registrant to pay an annual certification fee of $1000, regardless of whether or not any changes were made at the permitted facility during the previous year. While WVONGA does not object to the imposition of a fee if a permittee seeks a modification of its general permit registration, we believe that the imposition of a blanket annual fee of $1,000 is excessive and unduly burdensome. For many oil and gas production facilities, this permit will not be amended after issuance, leading to multiple years of fees without significant work required of the DAQ. The oil and gas industry has other annual regulatory fees and costs associated with the operation of wells besides the fees associated with air permitting. With this in mind, along with the current low market price of oil and gas, WVONGA believes that the annual fee of $1000 should be eliminated for facilities that have had no changes during the previous year, or a reduced fee of $200 be applied to these facilities instead.
Received From: WVONGA

DAQ Response
General Permit G70-B establishes a facility wide emissions limitation and alternative operating scenarios that can be utilized by industry without effecting a permit modification. This results in no modification permit application fees and application preparation cost savings for the permit applicants. In order to accommodate these changes, additional work for the DAQ is necessary to review the alternate operating scenario submittals and annual certifications. Therefore, this fee is necessary.

DAQ Action
None.

COMMENT #14
Conflicts of eligible NAICs Codes presented in Fact Sheet and draft G70-B. The draft G70-B only listed 211111, and 213112, whereas the fact sheet listed two additional.
Received From: Yi Chen, GHD

DAQ Response
The DAQ agrees that NAICS Codes 221210 and 486210 were included in the Fact Sheet but not in the Draft Permit. This was a mistake in the Fact Sheet.

DAQ Action
The DAQ corrected the Fact Sheet.

COMMENT #15
Permit Condition 2.3.1.f.
Noble believes there is no benefit to placing unnecessary restrictions on the eligibility of G70-B. While NSPS, Subpart Dc is not likely to apply to well production sites or natural gas compressor stations, including the requirements through general incorporation by reference will help avoid unnecessary updates to G70-B.
Received From: Noble Energy

DAQ Response
The DAQ does not encounter these size units at natural gas production facilities located at the well site. General Permits are written specific to a certain industry group with the goal of providing permit coverage to the largest equipment types. Therefore, all steam generating units covered by this General Permit shall be less than 10 MMBTU/hr. If a steam generating unit would be needed that would be 10 MMBTU/hr or greater, the applicant would be required to apply for a 45CSR13 permit.

DAQ Action
None.

COMMENT #16
Permit Condition 2.3.3.
Drilling and completion operations are temporary activities completed by portable equipment that are not associated with permanent production. Therefore, Noble asserts that G70-B should not establish any requirements for drilling and completion operations.
Received From: Noble Energy

DAQ Response
This permit condition defines *natural gas production facility activities* in relation to General Permit G70-B.

DAQ Action
None.

COMMENT #17
Permit Condition 2.5 - Acronyms
Condition 2.5 identifies acronyms. We note common acronyms dscm, Ppb, Pph, VOL from G70-A are missing from the list and urge DEP to review and, if necessary, to include them in the list.
Received From: Antero Resources

DAQ Response
These acronyms were not used in General Permit G70-B, therefore they were excluded.

DAQ Action
None.

COMMENT #18
Permit Condition 3.1.
Noble believes this language should account for existing facilities where development of a building, dwelling, business, public building, school, church, community building, institutional building, or public park occurs is proposed or occurs after the facility is already in operation.
Received From: Noble Energy

DAQ Response
If a dwelling, business, public building, school, church, community building, institutional building or public park are located within 300 feet of any emission unit(s), then the registrant would not be in compliance with this requirement. Unless a siting criteria waiver is obtained, then a 45CSR13 construction permit would be required.

DAQ Action
None.

COMMENT #19
Permit Condition 3.5.1.
This section requires that any records submitted to the agency pursuant to a requirement of the permit or upon request by the Secretary be certified by a responsible official. WVONGA suggests adding "upon request by the Secretary" to the end of this sentence, as records that are provided to agency officials during inspections and otherwise frequently are not individually certified.
Received From: WVONGA

DAQ Response
The permit condition states that any records submitted to the agency pursuant to a requirement of this permit or upon request by the Secretary shall be certified by a responsible official. If an official request is made by the Secretary, these records shall be certified by a responsible official.

DAQ Action
None.

COMMENT #20
Permit Condition 3.6.1.
Noble contends there is no reason to submit state minor source permitting documentation to the USEPA.
Received From: Noble Energy

DAQ Response
There are NSPS notifications that are required to be sent to USEPA.

Permit condition 3.6.3 requires 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:

If to the DAQ:
Director
WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304-2345

If to the US EPA:
Associate Director
Office of Air Enforcement and Compliance Assistance
(3AP20)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

DAQ Action
None.

COMMENT #21
Permit Condition 3.6.4.
Noble requests that the Agency clarify that emission inventories are only required upon request.
Received From: Noble Energy

DAQ Response
This requirement states that at such time(s) as the Secretary may designate, the registrant herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the DAQ. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

DAQ Action
None.

COMMENT #22
Permit Condition 4.1.3.
It is not possible to install equipment without the potential for leak. Leak Detection and Repair (LDAR) work practice standards are based on a leak threshold and account for the potential of insignificant amounts of material that may escape to the atmosphere. The basis for monitoring and subsequent repair is whether concentration exceeds a reasonable action level to warrant repair. Noble is concerned that the replacement requirements are vague and difficult to understand. The scope of equipment should be limited to piping designed to manage natural gas. Low volatility material such as lubricating oils and glycol should be excluded from the requirement as this material has low potential for emissions.
Received From: Noble Energy

DAQ Response
The DAQ agrees that repairs should be allowed. Therefore, language will be added to accommodate repairs in those instances.

DAQ Action
Permit condition 4.1.3 now states:

The registrant shall install, maintain, and operate all above-ground piping, valves, pumps, etc. that service lines in the transport of potential sources of regulated air pollutants to minimize any fugitive escape of regulated air pollutants (leak). Any above-ground piping, valves, pumps, etc. that shows signs of excess wear and that have a reasonable potential for fugitive emissions of regulated air pollutants shall be repaired or replaced as needed.

COMMENT #23
Permit Condition 4.1.4.
This section requires the maintenance of quarterly records of fugitive emissions for "each facility component that was inspected for fugitive escape of regulated air pollutants." WVONGA requests that this section be revised to authorize the documentation of leaks by equipment type rather than by component, given the very high number of individual components likely to be present at any given permitted facility.

WVONGA also suggests that the Draft Permit authorize a reduction in the frequency of LDAR monitoring based on the number of leaks detected. For example, Ohio's protocol is as follows: (1) An initial monitoring shall be completed within 90 days of startup and quarterly thereafter for a period of four consecutive quarters (1 year); (2) If, following the initial four consecutive quarters, less than or equal to 2.0% of the ancillary equipment are determined to be leaking during the most recent quarterly monitoring event, then the frequency of monitoring can be reduced to semiannual; (3) If, following two consecutive semi-annual periods, less than 2.0% of the ancillary equipment is determined to be leaking during the most recent semi-annual monitoring event, then the frequency of the monitoring can be reduced to annual; (4) If more than or equal to 2.0% of the ancillary equipment are determined to be leaking during any one of the semi-annual or annual monitoring events, then the frequency of monitoring shall be returned to quarterly. WVONGA suggests adopting a similar protocol in the Draft General Permit.
Received From: WVONGA

DAQ Response
This is a reasonable condition under 45CSR13 section 5.11. Fugitive leaks account for a large source of emissions from these facilities. Therefore, this requirement is necessary to minimize fugitive VOC emissions from these sources. The reduction in frequency that is referenced in your comment is based on using certified equipment to check for leaks. This is not required in permit condition 4.1.4. The LDAR language that was proposed will remain with no changes. At the time 40CFR60 Subpart OOOOa promulgates LDAR language, any necessary changes will be made to General Permit G70-B.

DAQ Action
None.

COMMENT #24
Permit Condition 4.1.4.
Noble is concerned with the ability to make repairs within the defined timeframe where ordering of parts is required.
Received From: Noble Energy

DAQ Response
This is a reasonable condition under 45CSR13 section 5.11.

DAQ Action
None.

COMMENT #25
Permit Condition 4.1.4 – LDAR Monitoring
Antero proposes that Leak Detection and Repair (LDAR) monitoring incorporate provisions for a reduction in the monitoring frequency based on the site leaker performance. The concept of reduced monitoring frequency based on performance is featured in many Federal MACT and NSPS standards (40 CFR 63 Subpart H and 40 CFR 60 Subpart KKK) and in the state Regulation to Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds (45CSR 21) . Antero offers the following comments:

a. Initial monitoring shall be completed with 90 days of startup and quarterly thereafter for a period of four consecutive quarters (1year).
b. If following the initial four consecutive quarters, less than or equal to 2.0% of the ancillary equipment are determined to be leaking during the most recent quarterly monitoring event, then the frequency of monitoring can be reduced to semiannual.
c. If following two consecutive semi-annual periods, less than 2.0% of the ancillary equipment is determined to be leaking during the most recent semi-annual monitoring event, then the frequency of the monitoring can be reduced to annual.
d. If more than or equal to 2.0% of the ancillary equipment are determined to be leaking during any one of the semi-annual or annual monitoring events, then the frequency of monitoring shall be returned to quarterly.
e. The program shall require that the leaking component is repaired within 30 calendar days after the leak is detected.

These general program recommendations are supported by similar requirements authorized by the Ohio General Air Permit 12.1 - Oil and Gas Well-site Production Operation GP with a Small Flare and General Air Permit 12.2 - Oil and Gas Well-site Production Operation GP with a Large Flare.
Received From: Antero Resources

DAQ Response
This is a reasonable condition under 45CSR13 section 5.11. Fugitive leaks account for a large source of emissions from these facilities. Therefore, this requirement is necessary to minimize fugitive VOC emissions from these sources. The reduction in frequency that is referenced is based on using certified equipment to check for leaks. This is not required in permit condition 4.1.4. The LDAR language that was proposed will remain with no changes. At the time 40CFR60 Subpart OOOOa promulgates LDAR language, any necessary changes will be made to General Permit G70-B.

DAQ Action
None.

COMMENT #26
Permit Condition 4.2.1.
Noble is concerned that this condition is too vague. At the time of sampling, there are numerous parameters in operation.
Received From: Noble Energy

DAQ Response
The requirements of permit condition 4.2.1 outline the records of specific monitoring information that must be maintained.

DAQ Action
None.

COMMENT #27
Permit Condition 4.2.3.
Excess emissions are not defined.
Received From: Noble Energy

DAQ Response
Excess emissions are emissions that exceed the current G70-B registration or G70-B annual certification.

DAQ Action
None.

COMMENT #28
Permit Condition 5.1.2.
Completion operations are temporary activities performed by portable equipment that is not associated with permanent production. Noble asserts that G70-B should not establish any requirements for completion operations.

An exemption should be added to 45CSR§6-6 explicitly exempting portable flares and enclosed combustion devices used during drilling and completion operations.
Received From: Noble Energy

DAQ Response
45CSR6 specifically outlines in section 45-6-6 the exemptions for temporary flares.

DAQ Action
None.

COMMENT #29
Permit Condition 5.1.2 - Completion Combustion Devices/Temporary Flares/Incinerators
Condition 5.1.2 incorporates by reference the requirements of 45CSR, Series 6. Antero suggests that the section only include the specific requirements of 45CSR, Series 6, Section 4 - Emission Standards for Incinerators and Incineration and 45CSR, Series 6, Section 6 - Permits. It is unnecessary to incorporate the entire rule which addresses open burning requirements, since open burning requirements are already included in Condition 3.2.1 and 3.2.2. Antero requests that this provision be removed.
Received From: Antero Resources

DAQ Response
This requirement was incorporated by reference to allow the General Permit to remain usable for changes to rules in the future.

DAQ Action
None.

COMMENT #30
Permit Condition 6.1.3.2.ii.
Condition 6.1.3.2.ii states that "the sample location shall be equipped with appropriate sampling access and temperature and pressure instrumentation." Many of Antero's operations rely on third-party contractors to perform these measurements with their own instrumentation. While it is appropriate to require that sampling locations be provided, requiring operators to install and maintain temperature and pressure instrumentation is not appropriate or consistent with operations. Antero urges DEP to delete the phrase "and temperature and pressure instrumentation" as this instrumentation is typically provided by the third party contractors performing the sampling.
Received From: Antero Resources

DAQ Response
The DAQ agrees and will remove the requirement for temperature and pressure instrumentation.

DAQ Action
Permit condition 6.1.3.2.ii now states:

The type and location of the sample shall be appropriate for the calculation methodology or model (e.g. ProMax, E&P Tanks, HYSYS) being used to calculate the emissions. The sample location shall be equipped with appropriate sampling access ~~and temperature and pressure instrumentation~~.

COMMENT #31
Permit Condition 6.1.3.2.iii.
Condition 6.1.3.2.iii requires the notification of DAQ if the VOC potential emissions are higher than the emission limits in the registration in accordance with Condition 6.5.3. Condition 6.5.3 does not exist in the permit. The correct reference should be Condition 6.4.2. Antero urges WVDEP to correct this clerical error.
Received From: Antero Resources

DAQ Response
The DAQ recognizes this typographical error.

DAQ Action
The requested change was made.

COMMENT #32
Permit Condition 6.2.2.
Separators are enclosed devices with limited visibility inside the vessel. Identification of liquid level will have no impact on the functionality of dump valves as the level controller dictates the operation of the dump valve rather than liquid level itself.
Received From: Noble Energy

DAQ Response
Separators are equipped with sight gages that visually indicate the liquid level in the separator. If liquid level is too low, natural gas will be transferred through the liquid line to the liquid storage tank and vented to the atmosphere. The DAQ has received complaints on this issue. Monitoring the liquid level in the separator is critical. The registrant does not want to lose their product. A dump valve that is stuck open will allow the vapors to vent directly to the atmosphere.

DAQ Action
None.

COMMENT #33
Permit Condition 6.2.2.1.
This section requires the registrant, for uncontrolled production storage vessels that are fed by a gas to liquid separator, to inspect and maintain records of the separator liquid level that opens the dump valve for uncontrolled production storage vessels on an as-needed basis and annually (at a minimum). Liquid level inspection in separators is not practical, and this requirement should be deleted.
Received From: WVONGA

DAQ Response
Separators are equipped with sight gages that visually indicate the liquid level in the separator. If liquid level is too low, natural gas will be transferred through the liquid line to the liquid storage tank and vented to the atmosphere. The DAQ has received complaints on this issue. Monitoring the liquid level in the separator is critical. The registrant does not want to lose their product. A dump valve that is stuck open will allow the vapors to vent directly to the atmosphere.

DAQ Action
None.

COMMENT #34
Permit Condition 6.2.2.1.
Condition 6.2.2.1 requires that uncontrolled production storage vessels that are fed by a gas to liquid separator shall inspect the separator liquid level that opens the dump valve on an as needed basis but a minimum of once per year. The inspection is not practical and Antero requests that it be removed from the permit.
Received From: Antero Resources

DAQ Response
Separators are equipped with sight gages that visually indicate the liquid level in the separator. If liquid level is too low, natural gas will be transferred through the liquid line to the liquid storage tank and vented to the atmosphere. The DAQ has received complaints on this issue. Monitoring the liquid level in the separator is critical. The registrant does not want to lose their product. A dump valve that is stuck open will allow the vapors to vent directly to the atmosphere.

DAQ Action
None.

COMMENT #35
Permit condition 6.3.1.
It is unclear how keeping a record of the aggregate throughput for the storage vessel(s) that contain condensate and or produced water on a monthly and a rolling (12) month basis can show that the facility-wide emissions do not exceed each of the regulated emissions thresholds contained in the table under 1.1.1 and HAPs under 1.1.3. Please explain the methodologies involved or provide additional monitoring requirements to assure compliance with these thresholds.
Received From: USEPA

DAQ Response
Permit condition 6.3.1 requires the registrant to maintain records of the VOC emission rate per storage vessel, including identification of the model or calculation methodology used to calculate the VOC emission rate. This value in conjunction with the condensate and/or produced water throughput rate will be used to demonstrate compliance with the VOC emission rate.

DAQ Action
None.

COMMENT #36
Permit Condition 6.3.2.
This section requires the registrant to maintain records of the determination of the VOC emission rate **per storage vessel**, including identification of the model or calculation methodology used to calculate the VOC emission rate. WVONGA notes that not all companies calculate loading emissions on a per-tank basis, but rather as an aggregate emission point. We recognize that Section 6.3.2 refers to Section 6.1.1 which says to determine emissions "for each storage vessel" as defined in 40 CFR §60.5430, but we believe the requirement should be to keep records of tank emissions for Subpart OOOO applicability purposes, which is often done on an emission averaging basis. As Section 6.3.1 allows applicants to maintain records of aggregate throughput, it would make sense to allow aggregate emissions calculations here as well.
Received From: WVONGA

DAQ Response
The emissions determination as required by the rule is per storage vessel. Therefore, this is required.

DAQ Action
None.

COMMENT #37
Permit Condition 6.4.2.
NSPS, Subpart OOOO does not trigger re-evaluation of storage vessel affected facilities due to new sampling data. NSPS affected facilities determinations can only be triggered via construction, modification, or reconstruction. NSPS, Subpart OOOO is explicit when affected facility determination must be performed and G70-B should not impose requirements in reference to NSPS, Subpart OOOO which are inconsistent with the NSPS, Subpart OOOO language. Therefore, Noble suggests the reference to NSPS, Subpart OOOO be removed.
Received From: Noble Energy

DAQ Response
This permit condition is a requirement of General Permit G70-B. If the potential emissions exceed those that were submitted with the issued registration, then written notification is required. Furthermore, 40CFR60.2 defines 'modification' as any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.

DAQ Action
None.

COMMENT #38
Permit Condition 8.1.
All references to "Emission Reduction Devices" or "ERDs" should be changed to "Process Modifications," as this is a more accurate terminology for the equipment being addressed here. To the extent that these terms are retained, a definition should be provided to ensure clarity for the regulated community. In addition, the last sentence of Section 8.1.2.1 refers to Section 8, and we believe that should be a reference to Section 7 for controlling Subpart OOOO tanks.
Received From: WVONGA

DAQ Response
The term 'modification' is defined in 45CSR13, therefore, ERDs as described in this section are not modifications. Section 8.1 outlines possible control and emission reduction devices meeting the scope of this section.

Possible control and emission reduction devices meeting the scope of this section include: (1) control devices used to control VOC and HAP emissions from the tanker truck loading operations; (2) control devices used to control VOC and HAP emissions from the storage vessel(s) below the NSPS, Subpart OOOO threshold of 6 tpy VOC. Control devices that are permitted under a legally and practically enforceable state permit achieve a "federally enforceable PTE" for VOC emissions at the storage vessels; and (3) control devices used to control VOC and HAP emissions from dehydration units.

DAQ Action
None.

COMMENT #39

Permit Condition 8.1.2.2.

WVONGA offers the following comments on this section:

- Section 8.1.2.2.ii. This language does not account for pilotless flares.
- Section 8.1.2.2.iii. This language appears to assume that all flares will be subject to 40 C.F.R. § 60.18, which is not the case (e.g., pressure-assisted flares). If a flare is not otherwise subject to a NSPS, the Draft General Permit should not require compliance with this provision.
- Section 8.1.2.2.vi. This section requires flares to be designed for and operated with "no visible emissions." This requirement directly conflicts with 45 C.S.R. 6, which establishes a general limit of 20 percent opacity. 45 C.S.R. 6-4.3. The agency's authority and basis for being more restrictive in the Draft General Permit is unclear. As currently drafted, it appears that any visible emissions would automatically constitute a violation of the Draft General Permit, which is unreasonable. At a minimum, the Draft General Permit should be revised to be consistent with 45 C.S.R. 6.

Received From: WVONGA

DAQ Response

8.1.2.2.ii.

The DAQ has not encountered pilotless flares at natural gas production facilities located at the well site. General Permits are written specific to a certain industry group with the goal of providing permit coverage to the largest equipment types. Pilotless flares are not covered under General Permit G70-B. If a pilotless flare will be utilized at one of these sites, it will need to be permitted under a 45CSR13 construction/modification permit.

8.1.2.iii.

Historically, the DAQ has encountered numerous non-compliance issues with pressure assisted flares. Additionally, the DAQ has not encountered pressure assisted flares at natural gas production facilities located at the well site. General Permits are written specific to a certain industry group with the goal of providing permit coverage to the largest equipment types. Pressure assisted flares are not covered under General Permit G70-B. If a pressure assisted flare will be utilized at one of these sites, it will need to be permitted under a 45CSR13 construction/modification permit.

8.1.2.2.vi.

The comment misinterprets the actual permit condition. The provision meets 60.18 and 45CSR6. The only way for the DAQ to grant 98% destruction efficiency is to meet permit condition 8.1.2.2.vi. Complying only with 20% opacity in 45CSR6 will not achieve 98% destruction efficiency.

DAQ Action

None.

COMMENT #40

Permit Condition 8.1.2.3.

WVONGA offers the following comments on this section:

- Section 8.1.2.3.ii. WVONGA requests the inclusion of language authorizing autoignite enclosed flares.
- Section 8.1.2.3.iii. This section requires enclosed combustion devices to be designed for and operated with "no visible emissions." Again, this requirement directly conflicts with the 20 percent opacity limitation contained in 45 C.S.R. 6- 4.3. As currently drafted, it appears that any visible emissions would automatically constitute a violation of the Draft General Permit, which is unreasonable. At a minimum, the Draft General Permit should be revised to be consistent with 45 C.S.R. 6. Further, the references in Section 8.1.2.3.iii.b to NSPS Subpart OOOO are inappropriate because this section of the Draft General Permit expressly applies to those control devices **not** subject to NSPS Subpart OOOO.

Received From: WVONGA

DAQ Response

8.1.2.3.ii.

The DAQ has not encountered pilotless flares at natural gas production facilities located at the well site. General Permits are written specific to a certain industry group with the goal of providing permit coverage to the largest equipment types. Pilotless flares are not covered under General Permit G70-B. If a pilotless flare will be utilized at one of these sites, it will need to be permitted under a 45CSR13 construction/modification permit.

8.1.2.3.iii.

The comment misinterprets the actual permit condition. The provision meets 60.18 and 45CSR6. The only way for the DAQ to grant 98% destruction efficiency is to meet permit condition 8.1.2.3.iii. Meeting 20% opacity in 45CSR6 will not achieve a 98% destruction efficiency.

DAQ Action

None.

COMMENT #41

Permit Condition 8.1.2.5.

The proposed maximum design heat input of 30 MMBTU/hr for registered flares or enclosed combustion devices is not appropriate or necessary in a general permit that establishes an overall emissions cap that must be met. A registrant may need to install an emergency flare to handle facility blowdowns that could require a much higher capacity.

Received From: WVONGA

DAQ Response

The DAQ does not encounter these size units at natural gas production facilities located at the well site. General Permits are written specific to a certain industry group with the goal of providing permit coverage to the largest equipment types. Therefore, the total of all flares or enclosed combustion devices covered by this General Permit shall not exceed 30 MMBTU/hr. If the total MDHI of all units would exceed 30 MMBTU/hr or greater, the applicant would be required to apply for a 45CSR13 permit.

DAQ Action
None.

COMMENT #42
Permit Condition 8.1.2.5.
Noble has concerns with safety and environmental implications of the proposed maximum design heat input limitation of 30 MMBTU/hr for temporary flaring. In practice, vapor control during certain, limited duration well maintenance activities will require a much higher capacity to safely handle flow associated with these events, vendor specifications for units in the needed range are included below. As these operations would be infrequent and intermittent, it is appropriate to afford operational limitations in the permit registration.
Received From: Noble Energy

DAQ Response
The DAQ does not encounter these size units at natural gas production facilities located at the well site. General Permits are written specific to a certain industry group with the goal of providing permit coverage to the largest equipment types. Therefore, the total of all flares or enclosed combustion devices covered by this General Permit shall not exceed 30 MMBTU/hr. If the total MDHI of all units would exceed 30 MMBTU/hr or greater, the applicant would be required to apply for a 45CSR13 permit.

DAQ Action
None.

COMMENT #43
Permit Condition 8.1.2.5.
Condition 8.1.2.5 limits the design heat input of any registered flare or enclosed combustion device to 30 MMBtu/hr. The agency does not justify why the maximum design heat input should be limited to 30 MMBtu/hr. Antero requests the agency provide this justification. Antero also requests the agency clarify that the maximum design heat input is for a single flare or enclosed combustion device and is not a facility wide limit for all flares permitted at the site.
Received From: Antero Resources

DAQ Response
The DAQ does not encounter these size units at natural gas production facilities located at the well site. General Permits are written specific to a certain industry group with the goal of providing permit coverage to the largest equipment types. Therefore, the total of all flares or enclosed combustion devices covered by this General Permit shall not exceed 30 MMBTU/hr. If the total MDHI of all units would exceed 30 MMBTU/hr or greater, the applicant would be required to apply for a 45CSR13 permit.

This requirement is a facility wide limit for all flares and/or enclosed combustion devices.

DAQ Action
None.

COMMENT #44

Permit Condition 8.1.3.

This provision requires the registrant to comply "with the cover requirements if the potential emissions that were calculated to determine affected facility status did include recovered vapors from the storage vessel as allowed in accordance" with Section 6.1.2 of the Draft General Permit. Similar language appears in Section 8.1.4 as well. We believe that the DAQ meant to compel permitees to comply with the cover requirements if vapor recovery was taken into account when determining potential to emit for Subpart OOOO status. See 40 CFR §60.5365(e)(3). We believe this section should say that recovered vapors are not included in potential to emit. WVONGA also requests clarification as to whether this language refers to potential emissions or actual emissions.

Received From: WVONGA

DAQ Response

Potential to emit is without the vapor recovery unit in accordance with 45CSR13.

DAQ Action

None.

COMMENT #45

Permit Condition 8.1.4.

WVONGA objects to the imposition of new LDAR requirements in this section as exceeding the agency's authority under the West Virginia Air Pollution Control Act, which expressly provides that "[n]o legislative rule or program of the director hereafter adopted shall be any more stringent than any federal rule or program except to the limited extent that the director first makes a specific written finding for any such departure that there exists scientifically supportable evidence for such rule or program reflecting factors unique to West Virginia or some area thereof." W. Va. Code § 22-5-4(a) (4). Absent some applicable federal requirement or an express finding that conditions unique to oil and gas development in West Virginia merit imposing these additional, more stringent requirements on sources to be governed by the Draft General Permit, these new and far-reaching leak detection requirements are inappropriate and should be deleted. Indeed, these requirements are more stringent than many other more complex permitted facilities in the state. In addition, it appears that Section 8.1.4 should refer to Section 6.1.2, not 6.1.4, which only applies to low pressure towers/stabilization equipment.

Received From: WVONGA

DAQ Response

- This is a reasonable condition under 45CSR13 section 5.11. To ensure that the overall capture and control efficiency is achieved this permit condition is required.
- The reference to Section 6.1.4 was a typographical error.

DAQ Action

- None.
- The reference to Section 6.1.4 was changed to Section 6.1.2.

COMMENT #46

Permit Condition 8.1.4.1.

Condition 8.1.4.1 reads as follows: You must design the closed vent system to route all gases, vapors, and fumes emitted from the material in the storage vessel to a control device that meets the requirements of 6.1.5 of this general permit or to a process. The registrant shall perform an initial LDAR evaluation within thirty (30) days of start-up and follow the procedures in section 4.1. for ongoing compliance.

a. Condition 8.1.4.1 requires the closed vent system to route all gases, vapors, and fumes emitted from the material in the storage vessel to a control device that meets the requirements of 6.1.5. Condition 6.1.5 does not exist in the permit. The correct reference should be Condition 6.1.2, which Antero urges WVDEP to correct this clerical error.

b. Condition 8.1.4.1 requires the registrant to follow the procedures in Section 4.1.4 for ongoing compliance with LDAR monitoring. Antero requests reduced LDAR monitoring frequency consistent with Comment #4.

Received From: Antero Resources

DAQ Response

a. The DAQ recognizes this typographical error.

b. This is a reasonable condition under 45CSR13 section 5.11. Fugitive leaks account for a large source of emissions from these facilities. Therefore, this requirement is necessary to minimize fugitive VOC emissions from these sources. The reduction in frequency that is referenced is based on using certified equipment to check for leaks. This is not required in permit condition 4.1.4. The LDAR language that was proposed will remain with no changes. At the time 40CFR60 Subpart OOOOa promulgates LDAR language, any necessary changes will be made to General Permit G70-B.

DAQ Action

a. The requested change was made.

b. None.

COMMENT #47

Permit Condition 8.1.5.vi.

The Draft General Permit requires the registrant to keep on-site fresh replacement for all carbon used in a carbon adsorption system. The regulatory authority for this requirement is unclear, as the Draft General Permit does not include a citation for this provision. This is expected to create logistical problems, particularly at unmanned facilities where the materials may be subject to theft. Accordingly, WVONGA requests the deletion of this requirement. In the alternative, this provision should be revised to authorize the permittee to maintain this material at a centralized field office.

Received From: WVONGA

DAQ Response
If fresh replacements are not kept on site and the carbon canister saturation indicator indicates saturation, then this control device cannot be operated appropriately, and noncompliance would occur.

DAQ Action
None.

COMMENT #48
Permit Condition 8.1.6.
WVONGA offers the following comments on this section:

- Section 8.1.6.ii. This section requires the condenser/BTEX Eliminator to be designed, operated and maintained according to good engineering practices and manufacturer's specifications so as to achieve, at a minimum, a capture and control efficiency of 50%." WVONGA is unclear on the basis for this limitation in the absence of an NSPS requirement. Is WVDAQ's intent to allow the registrant to claim a maximum capture and control efficiency of 50% unless it can provide documentation of greater reductions? Additionally, does this section conflict with Section 8.1.6.i, which requires routing vapors through a closed vent system to the condenser/BTEX Eliminator "at all times"? WVONGA believes that Section 8.1.6.ii and 8.1.6.ii.a are overly prescriptive and suggests that they be deleted.

Received From: WVONGA

DAQ Response
8.1.6.ii.
This is a reasonable condition under 45CSR13 section 5.11. Permit condition 8.1.6 allows the registrant the opportunity to be approved on manufacturer's specifications with a capture and control efficiency greater than 50%, therefore, this requirement is not overly prescriptive.

DAQ Action
None.

COMMENT #49
Permit Condition 8.1.7.
Additionally, Section 8.1.7.i requires the registrant to comply with the closed vent system requirements of Section 8.1.4 of the Draft General Permit. It is not appropriate to impose closed vent requirements on a non-NSPS Subpart OOOO source regulated under this section. This is also not applicable to sources not subject to an NSPS or NESHAP controls.
Received From: WVONGA

DAQ Response
Closed vent systems are a vital part of any capture system such as VRUs or combustors used to reduce emissions to non-NSPS levels. Additionally, EPA has identified closed vent systems as sources of emissions that should be controlled. This is a reasonable condition under 45CSR13 section 5.11. To ensure that the overall capture and control efficiency is achieved this permit condition is required.

DAQ Action
None.

COMMENT #50
Permit Condition 8.1.8.
This section appears to mix two possible systems for the control or recycling of possible emissions from a dehydrator—a condenser and a flash tank. WVONGA believes that this section is unusable as currently drafted because it is possible to have one or both of these systems on a dehydrator. Section 8.1.8.a is redundant for a condenser, as this is addressed in Section 8.1.6.i. Section 8.1.8.b is problematic because if a dehydrator does not have a condenser it is impossible to burn vapors in the reboiler from the still column as the water content is too great. Additionally, if a dehydrator has only a condenser, it is possible for natural gas to be the primary fuel for the reboiler. With regard to Section 8.1.8.c, again, if a dehydrator does not have a condenser then it is impossible to burn vapors from the still column as the water content is too great. Often, a dehydrator equipped with a condenser does not use the non-condensables as a primary fuel because this has the chance of putting out the reboiler flame. It is introduced to the flame zone in addition to the primary burner fuel and has a back-up system that will control the vapors if the reboiler turns off. There is a great variety of ways that this is done, including but not limited to glow plugs, extra burners, and some burn management systems. Additionally, Section 8.1.8.c would not apply to a dehydrator that has a flash tank only. Section 8.1.8 goes on to limit the control and capture efficiency to 50% unless a greater capture efficiency is approved based on manufacturer's specifications. This again appears to mix a condenser and a flash tank. First, a condenser and flash tank will have two different percentage rates by which they will limit emissions that are unrelated to each other. This can even be seen in the emission calculations for a dehydrator. The calculations treat these systems as separate limiting factors. The condenser will be more likely to be based on manufacturer's design. A flash tank will be more related to the BTU/scf of the gas, glycol pump type, and the size of the reboiler that is attached to the dehydrator. For that reason, it is highly unlikely that a company will be able to provide manufacturer's specifications for a flash tank. Additionally, in dry gas areas 85% has been a standard capture efficiency for a flash tank and has in the past and currently been accepted by many states.

Due to this conflation of the condenser and flash tank systems, WVONGA believes that this section will be unusable for dehydrators that have a condenser only, flash tank only or both, and require companies with such dehydrators to obtain an individual permit under 45 C.S.R. 13. Because dehydrators are one of the most common pieces of equipment in oil and gas operations and flash tanks are common, this would mean that a sizable numbers of sites would not be able to use this general permit.

Accordingly, in order to avoid redundancy with Section 8.1.6, WVONGA suggests that this section be rewritten for requirements for a flash tank only, as follows:

8.1.8. *Glycol Dehydration Units Equipped with a Flash Tank.* If the registrant reduces waste gas by recycling it as fuel via process design such the use of a dehydration flash tank back to the flame zone of the reboiler, it may be designed and operated in accordance with the following:

a. The reboiler shall only be fired with vapors flash tank, noncondensables

from a condenser, and natural gas may be used as a supplemental fuel.

The registrant may claim a recycling factor of 50% for wet gas and 85% for dry gas systems for those units meeting the requirement of 8.1.8.a. The registrant may claim a recycling factor greater than 50% or 85% if the General Permit Registration was approved based on manufacturer's specifications or calculations based on gas analysis, glycol pump type and burner size. An additional capture and control efficiency can be applied to flash tanks that are routed to another type of control listed in section 8 as either a secondary or primary control of the vapor.

Received From: WVONGA

DAQ Response

The intent of permit condition 8.1.8 was not to require a condenser and flash tank to claim a capture and control efficiency of 50%. Therefore, this permit condition will be modified to state that the use of a condenser or flash tank will allow the registrant to claim a capture and control efficiency of 50%. This permit condition allows the registrant to claim a capture and control efficiency greater than 50% if the General Permit Registration was approved based on manufacturer's specifications and the unit was operated as such.

DAQ Action

Permit condition 8.1.8 now states:

The registrant may claim a capture and control efficiency of 50% for those units meeting the requirements of ~~a through c~~ either a or b. The registrant may claim a capture and control efficiency greater than 50% if the General Permit Registration was approved based on manufacturer's specifications and the unit was operated as such.

COMMENT #51

Permit Condition 8.2.1.

The Draft General Permit requires the pilot flame for flares and enclosed combustion devices to be "equipped such that it sounds an alarm, or initiates notification via remote alarm to the nearest field office, when the pilot light is out." Again, the regulatory basis for this requirement is unclear. Many remote locations may not be equipped with such an alarm. Further, this does not account for multiple pilots (if one pilot goes down but others remain lit, would an alarm have to be sent?), and should not matter if the unit is equipped with an automatic re-igniter.

Received From: WVONGA

DAQ Response

If there is no alarm to notify the registrant that the flare is not operating appropriately, then the control device is non-functioning, and noncompliance would occur.

DAQ Action

None.

COMMENT #52

Permit Condition 8.2.2.

The requirements of this section relating to the initial leak inspection and subsequent leak monitoring requirements are overbroad and unduly burdensome. These are not appropriate for controls not subject to NSPS Subpart OOOO.

Received From: WVONGA

DAQ Response

This is a reasonable condition under 45CSR13 section 5.11. Fugitive leaks account for a large source of emissions from these facilities. Therefore, this requirement is necessary to minimize fugitive VOC emissions from these sources.

DAQ Action

45CSR§13-5.11 citation was added.

COMMENT #53

Permit Condition 8.2.2.

Condition 8.2.2. is confusing because it requires both quarterly monitoring consistent with 40 CFR 60 method 21 or optical gas imaging, and annual inspections of the closed vent system. Antero urges WVDEP to revise the permit language to clearly indicate what must be inspected on an annual basis and how that requirement differs from the quarterly monitoring requirements.

Received From: Antero Resources

DAQ Response

The annual inspection language will be removed. These inspections are required quarterly, therefore, additional annual inspections are unnecessary and will be removed.

DAQ Action

Permit conditions 8.2.2.b.i and ii were removed.

COMMENT #54

Permit Condition 8.2.3.

WVONGA offers the following comments on this section:

- Section 8.2.3.i. Please see the comment to Section 8.2.1, above, regarding the requirement to equip a pilot flame with an alarm.
- Section 8.2.3.iii. WVONGA requests clarification regarding the incorporation of NSPS Subpart OOOO requirements into this section of the Draft General Permit, which expressly governs non-NSPS Subpart OOOO sources. It seems unlikely that a source would install an NSPS Subpart OOOO certified combustor if it is not subject to NSPS Subpart OOOO in the first instance.

Received From: WVONGA

DAQ Response

- If there is no alarm to notify the registrant that the flare is not operating appropriately, then the control device is non-functioning, and noncompliance would occur.
- This is a reasonable condition under 45CSR13 section 5.11. This permit condition is to ensure that the enclosed combustion device is operating properly.

DAQ Action

None.

COMMENT #55

Permit Condition 8.2.3.iii.

Condition 8.2.3.iii states the registrant is exempt from the pilot flame requirements of i. and ii. if the registrant installed an enclosed combustion device model that was tested under 60.5413(d), which meets the criteria in 60.5413(d)(11). Antero requests that these sections be clarified that (i) and (ii) reference 8.2.3.i. and 8.2.3.ii.

Received From: Antero Resources

DAQ Response

The reference to paragraphs (i) and (ii) in 8.2.3.iii will be changed to 8.2.3.i and 8.2.3.ii.

DAQ Action

Permit condition 8.2.3.iii now states:

The registrant is exempt from the pilot flame requirements of permit condition ~~paragraphs (i)~~8.2.3.i and ~~(ii)~~8.2.3.ii of this section if the registrant installed an enclosed combustion device model that was tested under § 60.5413(d) which meets the criteria in § 60.5413(d)(11).

COMMENT #56

Permit Condition 8.3.1.

This section prescribes testing requirements relating to the visible emissions requirements in Sections 8.1.2.2, 8.1.2.3 and 8.1.2.6 of the Draft General Permit. As stated above, WVONGA objects to these requirements on the ground that they would render any visible emissions an automatic violation of the Draft General Permit, and contradict the 20 percent opacity limitation contained in 45 C.S.R. 6. Furthermore, the testing protocols required in this section are much more stringent than other sources currently permitted in West Virginia, and without any regulatory basis. WVONGA suggests that the opacity limitations from 45 C.S.R. 6 be incorporated into the Draft General Permit as the governing standard—which may already be the case, pursuant to Section 8.1.2.6, although it is unclear how this provision relates to other sections relating to visible emissions—and then, if visible emissions are detected using Section 11 of EPA Method 22, the registrant should be given a certain timeframe in which to correct the issue. If a follow-up test using Method 22 indicates that the leak persists, then a Method 9 test may be appropriate within 10 days thereafter (due to difficulties in getting someone who is certified to perform Method 9 tests out to the individual sites immediately).

Received From: WVONGA

DAQ Response
This is a reasonable condition under 45CSR13 section 5.11. To ensure that the flare achieves a 98% control efficiency, these minimum visible emission requirements are necessary. Complying only with 20% opacity in 45CSR6 will not achieve 98% destruction efficiency.

DAQ Action
None.

COMMENT #57
Permit Condition 8.3.2.
WVONGA requests clarification regarding (1) what performance testing is referenced in this section and (2) whether compliance with 40 C.F.R. §60.18 is mandatory under the Draft General Permit (as some flares will not be able to comply with this requirement, as discussed above in conjunction with our comment on Section 8.1.2.2.iii).
Received From: WVONGA

DAQ Response
- The term "performance testing" will be replaced with "compliance demonstration".

- Pressure assisted flares are not covered under General Permit G70-B. The DAQ has not encountered pressure assisted flares at natural gas production facilities located at the well site. General Permits are written specific to a certain industry group with the goal of providing permit coverage to the largest equipment types. If a pressure assisted flare will be utilized at one of these sites, it will need to be permitted under a 45CSR13 construction/modification permit.

DAQ Action
Permit condition 8.3.2 now states:

A flare that is designed and operated in accordance with §60.18(b) shall not require ~~performance testing~~ a compliance demonstration, unless at the request of the Secretary, but must conduct visible emission check.

COMMENT #58
Permit Condition 8.3.3.
WVONGA notes that several of the methods referenced in this section are not included in 45 C.S.R. 6-7.1 and may not be appropriate for use here. Specifically, Method 5 is unnecessary and would prove very difficult, if not impossible, to perform with any accuracy due to the high temperatures and the lack of sampling access on flare exhaust stacks. Special equipment such as glass filter frits and quartz probe liners would be needed just to handle the heat. The preferred nozzle (glass) would not be possible since the union used to connect glass probe nozzles to probe liners must be made of Teflon (max sampling temperature of Teflon is 500°F) to prevent nozzle damage. Furthermore, filter and probe temperatures are almost impossible to maintain at the required 248± 25°F due to the extremely high temperature gas samples being drawn into the sampling system. Since the flare is used to burn natural gas that has a very low particulate loading, a full blown Method 5 particulate test will most likely not tell you anything you could

not surmise from a visual observation of the exhaust. When you consider the applicable Method 22 opacity testing requirement this seems, at the very least, duplicative.

Method 18, for many of the same reasons stated above, will not be possible on these types of sources. The Tedlar bags used in this method can only handle about 225°F and any Teflon components in the sample train will start to deform above 500°F. Again, when a flare is operating it is controlling emissions sufficiently and performing a stack test is duplicative in nature and simply not necessary.
Received From: WVONGA

DAQ Response
This is a requirement in 45CSR6. However, permit condition 3.4.1 allows alternative testing at the Director's discretion.

DAQ Action
None.

COMMENT #59
Permit Condition 8.4.1.
It appears that this section presumes that a flare-specific on-site design evaluation in accordance with 40 C.F.R. § 60.18. Again, WVONGA notes that some flares are not subject to 40 C.F.R. § 60.18, and therefore requests confirmation that such flares would not have to comply with this requirement. If that is the case, WVONGA suggests adding express language to this section limiting its applicability to any flares subject to 40 C.F.R. § 60.18.
Received From: WVONGA

DAQ Response
The DAQ has not encountered pressure assisted flares at natural gas production facilities located at the well site. General Permits are written specific to a certain industry group with the goal of providing permit coverage to the largest equipment types. Pressure assisted flares are not covered under General Permit G70-B. If a pressure assisted flare will be utilized at one of these sites, it will need to be permitted under a 45CSR13 construction/modification permit.

DAQ Action
None.

COMMENT #60
Permit Condition 8.4.5.
For the reasons discussed above in conjunction with Section 8.2.2, the closed vent monitoring requirements should not be applicable to non-NSPS Subpart OOOO sources and therefore should be deleted from the Draft General Permit.
Received From: WVONGA

DAQ Response
This is a reasonable condition under 45CSR13 section 5.11. Fugitive leaks account for a large source of emissions from these facilities. Therefore, this requirement is necessary to minimize fugitive VOC emissions from these sources.

DAQ Action
45CSR§13-5.11 citation was added.

COMMENT #61
Permit Condition 8.4.8.
This section requires that any records submitted to the agency pursuant to a requirement of the permit or upon request by the Director be certified by a responsible official. WVONGA suggests adding "upon request by the Secretary" to the end of this sentence, as records that are provided to agency officials during inspections and otherwise frequently are not individually certified.
Received From: WVONGA

DAQ Response
The permit condition states that any records submitted to the agency pursuant to a requirement of this permit or upon request by the Secretary shall be certified by a responsible official. If an official request is made by the Secretary, these records shall be certified by a responsible official.

DAQ Action
None.

COMMENT #62
Permit Condition 8.4.9.
This section would require the registrant to record the volume of gas flared and the heating value of the gas flared on a monthly basis to demonstrate compliance with the maximum heat design input for a flare or enclosed combustion device. This requirement is unnecessary overly burdensome for ensuring compliance with the maximum heat design input, and not all operators have a means of readily collecting this information.
Received From: WVONGA

DAQ Response
DAQ agrees and has removed the requirement to record the heating value of the gas flared.

DAQ Action
Permit condition 8.4.9 now states:

To demonstrate compliance with section 8.1.2.5 of this general permit, the registrant shall record the volume of gas flared ~~and the heating value of the gas flared~~ on a monthly basis.

COMMENT #63
Permit Condition 8.4.10.
For the glycol dehydrators that have condenser overheads that are routed to a combustion device or to the reboiler to be combusted, WVONGA believes this requirement is unnecessary, and accordingly, WVONGA requests the deletion of this requirement. Additionally, for the glycol dehydrators that have the condenser overheads vented to the atmosphere rather than combusted, WVONGA suggests that monitoring be quarterly, as in Section 15.2.3.
Received From: WVONGA

DAQ Response
DAQ agrees and has removed the requirement.

DAQ Action
Permit condition 8.4.10 was removed in its entirety.

COMMENT #64
Permit Condition 8.5.
WVONGA submits that this entire section is without a regulatory basis (and the Draft General Permit cites to no authority for any of the requirements in this section), and as such constitutes an unreasonable overreach by the agency in the context of the relatively minor sources to be permitted subject to the Draft General Permit. Further, with regard to Section 8.5.3 specifically, WVONGA questions why any reporting is necessary in the absence of any exceedance of emissions, regardless of the operational status of the air pollution control device.
Received From: WVONGA

DAQ Response
This is a reasonable condition under 45CSR13 section 5.11. Additionally, this ensures that the capture and control efficiency allowed under the permit are being met.

DAQ Action
None.

COMMENT #65
Permit Condition 13.1.2.d.
WVONGA requests confirmation that the requirement to "monitor" the temperature to the inlet of the catalyst does not require that this information be **recorded**, as this is typically not the case—rather, it is monitored and the unit will alarm and shut down in the event of high temperature. WVONGA also questions whether thermal deactivation is such a common issue that it needs to be addressed in such a specific, prescriptive manner in this section of the permit, rather than as a part of the registrant's normal operation and maintenance procedures.
Received From: WVONGA

DAQ Response
This permit requirement does not require that this information is recorded, only monitored. This issue is a concern to DAQ, therefore it will remain a requirement.

DAQ Action
None.

COMMENT #66
Permit condition 13.1.3.
The general permit should have language requiring the owner or operator of a natural gas compression and/or processing facility to submit to the DAQ the appropriate DEP Regional Air Quality Office requests, reports, applications, submittals and other communications concerning applicable federal New Source Performance Standards and National Emissions Standards for Hazardous Air Pollutants.
Received From: USEPA

DAQ Response
Permit condition 3.6.3 requires 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:

If to the DAQ:
Director
WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304-2345

If to the US EPA:
Associate Director
Office of Air Enforcement and Compliance Assistance (3AP20)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

DAQ Action
None.

COMMENT #67
Permit Condition 14.1.2 and 14.2.2.
Conditions 14.1.2 and 14.2.2 require MACT and/or NSPS Annual Leak Tests to demonstrate compliance with the capture efficiencies. These conditions indicate that the requirement can be satisfied if the trucking company provides certification that all tanker trucks servicing the location are compliant. Antero believes and requests the conditions should include a statement to clarify that the certification requirement for rail cars can also be met if the rail company provides certifications that all rail cars servicing the location are compliant MACT and/or NSPS Annual Leak Tests.
Received From: Antero Resources

DAQ Response
DAQ agrees and will add rail car language to these permit conditions.

DAQ Action
Permit condition 14.1.2 now states:

The following applicable capture efficiencies are required:

a. For tanker trucks and/or rail cars not passing one of the annual leak tests in 14.1.2(b) or (c) and has vapor return – 70%
b. For tanker trucks and/or rail cars passing the NSPS level annual leak test – 98.7%.
c. For tanker trucks and/or rail cars passing the MACT level annual leak test – 99.2%

Compliance with this requirement shall be demonstrated by keeping records of the applicable MACT or NSPS Annual Leak Test certification for every truck and railcar loaded/unloaded. This requirement can be satisfied if the trucking/railcar company provided certification that all tanker trucks/rail cars servicing the location are compliant. This certification must be submitted with the G70-B Annual Certification.

Permit condition 14.2.2 now states:

For the purpose of demonstrating compliance with section 14.1.2, the registrant shall maintain records of the MACT and/or NSPS Annual Leak Tests of all trucks/rail cars loaded at the facility. This requirement can be satisfied if the trucking/rail car company provided certification all tanker trucks/rail cars servicing the location was compliant. This certification must be submitted in writing to the Director of the DAQ.

COMMENT #68
Permit Condition 15.3.
WVONGA requests confirmation that advance notification of the sampling to be conducted pursuant to this section is not required.
Received From: WVONGA

DAQ Response
Advance notification of the sampling is not required, unless the registrant chooses to use alternative methods that must be approved by the DAQ.

DAQ Action
None.

COMMENT #69
Permit Condition 15.5.2.
WVONGA submits that this should not be required if the source was permitted as such and has not exceeded any permitted limits.
Received From: WVONGA

DAQ Response
If this is the case, it is equally important that the registrant notify the DAQ of this compliance determination.

DAQ Action
None.

GENERAL PERMIT G70-B APPLICATION COMMENTS

COMMENT #70

Pending G70-A Applications.

At various points during the course of the development of the Draft General Permit, WVDAQ has stated its intention that, although existing registrations under General Permit No. G70-A will continue in effect after the issuance of the Draft General Permit, any modifications or updates to the earlier "superseded" permit will be processed through (and trigger coverage under) the final General Permit G70-B. WVONGA also requests clear guidance from WVDAQ as to how pending permit applications will be handled once the Draft General Permit is finalized and becomes available for use. While WVDAQ has stated that the permit writer would contact the applicant to obtain any necessary supplemental information that might be needed to allow for processing of General Permit G70-B, WVONGA anticipates that this may be an onerous process for both the agency and the applicant that filed an application that was valid and proper at the time of its submission. WVONGA therefore suggests that WVDAQ issue the permit type for which an applicant applied unless otherwise requested by the applicant, while mandating the use of the General Permit G80-A application after a certain date (i.e., the permit issuance).

Received From: WVONGA

DAQ Response

The DAQ does not agree that this would be an onerous process.

DAQ Action

General Permit G70-B was signed by the DAQ Director on November 2, 2015. In order to accommodate any pending G70-A registration applications, the DAQ has established a transition period that will cover three (3) separate scenarios.

1. Any current G70-A registration application under review by the DAQ will be issued as such, unless the applicant chooses to change to the G70-B application process. If so, the DAQ will require the applicant to withdraw the pending G70-A application and submit a new G70-B application utilizing the new G70-B forms. The DAQ will not require these applicants to pay an additional application fee nor re-publish their Class I legal advertisement.

2. All G70 applications received on or after November 2, 2015 and ending on December 31, 2015 have the option of applying for registration under either G70-A or G70-B.

3. All G70 applications received on or after January 1, 2016 are required to apply for G70-B and utilize G70-B forms. If G70-B forms are not used, the application will be returned.

COMMENT #71

Application Forms

WVONGA appreciates the significant improvements made to the application forms following the close of the comment period on the Draft General Permit G80-A. However, WVONGA notes that in certain places the forms continue to prompt the entry of data multiple times and in multiple places, which increases the likelihood of errors that may result in permit delays. Accordingly, WVONGA urges WVDAQ to review the proposed forms once more in an effort to eliminate all duplicative data entry requirements.

Received From: WVONGA

DAQ Response
The standardized forms developed by the DAQ expedite internal permit application review.

DAQ Action
No change.

COMMENT #72
General Permit Registration Application pp. 1-2.
For purposes of clarity and ease in completing the application forms, WVONGA suggests that the individual check boxes for construction, modification and relocation at the top of page 1 of the application be replaced with a single box for "New Registration" (as modifications and relocations are not expected to be applicable here). Corresponding changes (from "Construction, Modification and Relocation" to "New Registration," deleting unnecessary references to "modifications" and "relocations," etc.) should be implemented throughout the forms. The Class I and Class II Administrative Update boxes should remain as-is in the Draft General Permit.

In the last row on page 2, the application requires the registrant to provide "One (1) paper copy and two (2) copies of CD or DVD of pdf copy of Application and Excel Spreadsheets (plot plans, all attachments and supporting documents)." WVONGA notes that plot plans are not easily convertible to PDF and as such requests that one paper copy of these plans is sufficient to provide with the application (particularly as any PDF of a plot plan is likely to be too small to read anyway).

Finally, WVONGA believes that this form needs to be clearer regarding what documentation and forms are required for the different types of applications. For example, is a plot plan required when filing for an administrative update?
Received From: WVONGA

DAQ Response
Modifications and administrative updates are both an option under General Permit G70-B.

All attempts to include a plot plan with the pdf copy should be made. However, if inclusion is impossible, one (1) paper copy shall be sufficient. Additional paper copies may be requested.

Attachment F clearly states that a plot plan is required for an administrative update. Each attachment is clear on its necessity to be included with the application submittal.

DAQ Action
None.

COMMENT #73
Application Attachment A - Single Source Determination Form.
It appears that the current proposed version of this form—as revised from the version included with the draft General Permit G80-A earlier this year—would require all applicants to provide a narrative source aggregation analysis, those facilities located within one mile of another facility owned by or associated with the natural gas industry would also have to complete the extensive "Single Source Determination Form" checklist. While WVONGA appreciates the agency's limitation of the requirement to fill out the detailed checklist, WVONGA continues to believe that this checklist will create far more confusion for both the regulated community and the agency than the current narrative-only approach. Despite this attempt to systematize and simplify the aggregation analysis, the fact remains that whether aggregation is appropriate is a highly site-specific inquiry that is best evaluated on the basis of a narrative justification. Furthermore, it is unclear from the checklist what additional "explanations" regarding the specific questions would be required beyond what the applicant presumably already would have included in its narrative discussion on page 3. Finally, WVONGA notes that the current checklist ultimately may end up conflicting with any revisions to the aggregation analysis ultimately finalized by the United States Environmental Protection Agency. Accordingly, WVONGA suggests that WVDAQ delete the proposed checklist in favor of requiring a narrative aggregation analysis/justification only, consistent with current practice.
Received From: WVONGA

DAQ Response
If the proposed facility is located within one (1) mile of another facility in the natural gas industry, the checklist must be completed. This checklist was developed to assist DAQ personnel in making source determinations. The DAQ does not believe it creates confusion for the regulated community. These questions are routinely asked of applicants when facilities are located this close to one another. This checklist will help expedite single source determinations.

If USEPA clarifies air permitting rules in regards to single source determinations for the oil and natural gas industry, DAQ will reassess this form and modify appropriately.

DAQ Action
None.

COMMENT #74
Application Attachment A – Single Source Determination
It is not possible to account for all of the potential scenarios that must be addressed in a single source determination via a checklist form. This issue is subject to numerous factors including guidance from the USEPA. Furthermore, responses to the proposed questions may inaccurately represent the situation.
Received From: Noble Energy

DAQ Response
The checklist only needs to be completed if the proposed facility is located within one (1) mile of another facility in the natural gas industry, the checklist must be completed. This checklist was developed to assist DAQ personnel in making source determinations. The DAQ does not believe it creates confusion for the regulated community. These questions are routinely asked of

applicants when facilities are located this close to one another. This checklist will help expedite single source determinations.

If USEPA clarifies air permitting rules in regards to single source determinations for the oil and natural gas industry, DAQ will reassess this form and modify appropriately.

DAQ Action
None.

COMMENT #75
Source Aggregation Evaluation
The West Virginia Department of Environmental Protection (WVDEP), Division of Air Quality requires as part of its air permit application review process an air aggregation source determination analysis be performed and such review requires an analysis of sources beyond ¼ mile from the proposed source. Antero urges WVDEP to review the application to be sure it is consistent with the federal Clean Air Act (CAA) regulations and current case law and further that it adopt a general standard that sources which are beyond ¼ mile in distance from the proposed source are by definition not "contiguous" and "adjacent" to the proposed source for purposes of performing its source aggregation evaluation, this approach is consistent USEPA's proposed clarification of air permitting rules for the oil and gas industry issued on August 18, 2015. See Proposed Rule, Oil and Natural Sector: Emissions for New and Modified Sources available at http://www.epa.gov/airquality/oilandgas/pdfs/og_nsps_pr_081815.pdf. In the August 18, 2015 proposal for USEPA's air permitting rules as they apply to the oil and gas industry, USEPA, consistent with the decision in Summit, proposes to adopt the Quarter Mile Rule as a general benchmark when performing its source aggregation evaluation.

We support the use of this general rule and that sources located greater than a quarter mile away in distance do not meet the common sense notion of contiguous or adjacent. Sources closer than ¼ mile in distance would be subject to a case by case review to determine whether source aggregation is proper. Antero urges WVDEP to reduce the radius for its review of neighboring sources to those sources within ¼ mile of the proposed facility.

Antero also urges the agency to consider the following comments:

a. The application requires the applicant to identify whether there is a facility owned by or "associated with the natural gas industry" within one mile from the proposed facility. Antero urges WVDEP to limit this distance to ¼ mile from the proposed facility as further described above. Furthermore, the phrase "associated with the natural gas industry" is vague and undefined. Presumably, this question seeks to identify whether the sources belong to a single major industrial grouping. This question should be refined to ask whether there are any facilities within a prescribed distance "that belong to the same single major industrial grouping as the proposed facility." The Single Source Determination Form should contain check boxes for the response "unknown" because; it may not be possible for authorized official to certify "yes" or "no" to each of the questions.

b. Antero urges WVDEP to develop a tool for applicants to identify facilities belonging to the same single major industrial grouping based on site coordinates as this would expedite the application and review process.

Received From: Antero Resources

DAQ Response
The DAQ requires the registrant to provide a source aggregation analysis for the proposed facility. Furthermore, the checklist only needs to be completed if the proposed facility is located within one (1) mile of another facility in the natural gas industry, the checklist must be completed. This checklist was developed to assist DAQ personnel in making source determinations. The DAQ does not believe it creates confusion for the regulated community. These questions are routinely asked of applicants when facilities are located this close to one another. This checklist will help expedite single source determinations.

If USEPA clarifies air permitting rules in regards to single source determinations for the oil and natural gas industry, DAQ will reassess this form and modify appropriately.

DAQ Action
None.

COMMENT #76
Application Attachment F - Plot Plan.
WVONGA notes that a plot plan should not be required for an administrative update that does not affect the location of an emission point or the location of the facility.
Received From: WVONGA

DAQ Response
It is common for as built changes to have occurred since the original registration issuance.

DAQ Action
No change.

COMMENT #77
Application Attachment F – Plot Plan
Plot plans should not be required for an administrative update which does not affect the location of the emission units.

Received From: Noble Energy

DAQ Response
It is common for as built changes to have occurred since the original registration issuance.

DAQ Action
None.

COMMENT #78
Application Attachment G - Area Map.
Like the plot plan discussed above, an area map should not be required for an administrative update that does not affect the location of an emission point or the location of the facility.
Received From: WVONGA

DAQ Response
It is common for changes (new dwellings or roads) to have occurred since the original registration issuance.

DAQ Action
No change.

COMMENT #79
Application Attachment G – Area Map
Area maps should not be required for an administrative update which does not affect the location of the emission units.

Received From: Noble Energy

DAQ Response
It is possible for changes to area maps to occur since the original registration issuance.

DAQ Action
None.

COMMENT #80
Application Attachment I – Emission Units/ERD Table.

- The reference in the header of the Table to "Emission Reduction Devices" should be changed to "Process Modifications." WVONGA notes further that control devices and ERDs are not interchangeable like Section 8.0 of the Draft General Permit treats them—many of the "emissions reductions devices" are treated separately by the Draft General Permit as quasi-controls, despite being legitimate process configurations. These terms are not defined in the permit to provide the needed clarity.
- The introductory language at the top of the table should clarify that this attachment does not apply to sources of fugitive emissions.
- WVONGA approves of the agency's deletion of language requiring the applicant to list all storage vessels associated with the permitted facility's operation, including those that have "negligible emissions," in this table. WVONGA seeks confirmation that these *de minimis* tanks are no longer required to be included in Attachment I (i.e., and they are to be entered into Attachment L only).
- The fourth column on the chart would require the registrant to provide the "Year Installed/Modified." WVONGA requests that the agency delete the reference to modification as confusing and potentially duplicative, as any change will be captured in the seventh column ("Type and Date of Change").

Received From: WVONGA

DAQ Response

- The term 'modification' is defined in 45CSR13, therefore, ERDs as described in this section are not modifications. Section 8.1 outlines possible control and emission reduction devices meeting the scope of this section.

  Possible control and emission reduction devices meeting the scope of this section include: (1) control devices used to control VOC and HAP emissions from the tanker truck loading operations; (2) control devices used to control VOC and HAP emissions from the storage vessel(s) below the NSPS, Subpart OOOO threshold of 6 tpy VOC. Control devices that are permitted under a legally and practically enforceable state permit achieve a "federally enforceable PTE" for VOC emissions at the storage vessels; and (3) control devices used to control VOC and HAP emissions from dehydration units.
- Clarification will be provided.
- Clarification will be provided.
- Clarification will be provided.

DAQ Action

- None.
- A sentence was added that states, "Do not include fugitive emission sources in this table".
- A sentence was added that states, "Deminimis storage tanks shall be listed in the Attachment L table".
- The fourth column's heading will be changed to "Year Installed". Modifications would be covered under the Type and Date of Change column.

COMMENT #81

Application Attachment J – Fugitive Emissions.

- WVONGA incorporates its comments relating to the monitoring frequency for fugitive emissions in the Draft General Permit, above, and requests the deletion of the "Monitor Frequency" column in the table on page 12.
- WVONGA notes that the form on page 12 could cause confusion by requiring the applicant to denote "Closed Vent System" and "Stream Type" for each type and count of component. It becomes unclear how to complete this form if there are valves in both gas and liquid service, for example. Additionally, these two fields provide no benefit to WVDAQ, as they will not provide any additional information for regulatory applicability or for inspections.
- At the bottom of the table on page 12, WVDAQ requests the applicant to provide an explanation of the sources of fugitive emissions, including pneumatic controllers. Historically, WVDAQ has not required any information on pneumatic controllers to be included in the permit application. The reference to pneumatic controllers in this question should be removed.
- The question at the bottom of the table on page 12 relating to closed vent bypasses is unnecessary. Such systems are either not regulated or are regulated by NSPS Subpart OOOO. If they are subject to NSPS Subpart OOOO, the general references to the regulation in the Draft General Permit itself would cover all regulatory requirements. This question provides no additional value to the forms.

Received From: WVONGA

DAQ Response

- This is required in the permit to be monitored quarterly. Therefore, this column will be removed.
- The DAQ agrees it is unclear to represent component types in both gas and liquid service.
- The G70-B registration application specifically requests information concerning pneumatic controllers in Attachment Q.
- This question requires all equipment used in the closed vent system to assist in making the determination whether or not the closed vent system meets the regulatory requirements of the permit.

DAQ Action

- The "Monitor Frequency" column was removed.
- The stream type column will be modified to include check boxes for each stream type or both stream types.
- None.
- None.

COMMENT #82

Application Attachment K – Gas Well Affected Facility Data Sheet.

- The purpose of the "Date of Flowback" and "Date of Well Completions" fields is not clear. The Draft General Permit states that a gas well affected facility must comply with NSPS Subpart OOOO. The Draft General Permit may cover gas wells that are not "gas well affected facilities" under this regulation. Additionally, the NSPS Subpart OOOO reporting requirements will cover this information.
- The purpose of the "Green Completion and/or Combustion Device" field is not clear. Historically, WVDAQ has regulated a completion if flaring would require an air permit.

Received From: WVONGA

DAQ Response

- The form clearly states that it must be completed for natural gas well affected facilities.
- The green completion and/or combustion device column is included for the registrant to inform the DAQ how they intend to comply with the regulation.

DAQ Action

None.

COMMENT #83

Application Attachment K – Gas Well Affected Facility Data Sheet

This form should be deleted. It provides no useful information for ongoing compliance. Gas well completion activities are transient activities without ongoing compliance requirements. All gas well completion activities subject to NSPS OOOO will be identified via the 2-day notification requirements. Recordkeeping and reporting requirements will be satisfied outside of the G70-B permit.

Received From: Noble Energy

DAQ Response

The form clearly states that it must be completed for natural gas well affected facilities. This form is required for the registrant to inform the DAQ how they intend to comply with the regulation.

DAQ Action

None.

COMMENT #84

Application Attachment L – Storage Vessel Data Sheet.

The Storage Tank Data Table on page 18 of the application prompts the applicant to identify all *de minimis* storage tanks. WVONGA requests clarification as to how companies should address the installation or removal of *de minimis* tanks, as emissions from these tanks do not have to be quantified and the tanks are not subject to emissions limits. Will a notification to WVDEP be required of any change in the number of *de minimis* tanks on site?

Received From: WVONGA

DAQ Response

This issue would be covered under 45CSR13 Sections 5.13 or 5.14 as it relates to the permit determination process

DAQ Action

None.

COMMENT #85

Application Attachment N – Internal Combustion Engine Data Sheet.

- In the seventh row of the table on page 20, WVONGA requests clarification regarding what the agency means by "NESHAP ZZZZ/NSPS JJJJ Window."
- WVONGA requests clarification of whether, by checking "yes" in response to the question of whether the Air Pollution Control Device Manufacturer's Data Sheet is included on the "Engine Air Pollution Control Device" form on page 22, the remainder of the form can be left blank.
- The "Engine Air Pollution Control Device" form on page 22 requires the registrant to specify the "Service life of the catalyst." This is unnecessary and will vary. The "Pressure drop against the catalyst bed" also changes.
- WVONGA objects to the requirement in the "Engine Air Pollution Control Device" form on page 22 to specify the recommended frequency of replacement of the catalyst as unnecessary and irrelevant. The purpose of this requirement is unclear.

- As a global comment on the "Engine Air Pollution Control Device" form on page 22, WVONGA notes that much of this information should not be necessary to provide if the manufacturer's data sheet is included with the application. The agency should take all efforts to minimize unnecessary duplication.

Received From: WVONGA

DAQ Response

- NESHAP ZZZZ/NSPS JJJJ Window refers to engines that fall into a 'window' where there are no requirements under either 40CFR63 Subpart ZZZZ or 40CFR60 Subpart JJJJ. Therefore, those engines that are 'new' under 40CFR63 Subpart ZZZZ (i.e. construction or reconstruction commenced on or after June 12, 2006) located at an area source of HAP emissions, and ordered or manufactured before the applicable dates in 40CFR60 Subpart JJJJ, do not have to meet the requirements of either rule.
- No. The APCD manufacturer's data sheet must be included and the form must be completed.

- This requirement ensures that the air pollution control device is being operated per manufacturer's recommendations. Otherwise, non-compliance may occur.
- All of the requested information on this form is not included with the manufacturer's data sheet. Therefore, the APCD manufacturer's data sheet must be included and the form must be completed.

DAQ Action

None.

COMMENT #86

Application Attachment P – Glycol Dehydration Unit Data Sheet.

- In the "Date Installed/Modified/Removed" field, the reference to "removal" should be deleted. Why would a form be completed for the removal of a dehy? Corresponding changes should be made to footnotes 1 and 2 on page 25.
- The purpose of the series of questions relating to NESHAP Subpart HH is not clear. If this subpart is referenced generally in the Draft General Permit and an applicant has the option to have a dehy that is either above or below the control thresholds in NESHAP Subpart HH, there is no purpose for including these questions in the application.

Received From: WVONGA

DAQ Response

- This information would be required in those instances where the registrant is applying for an administrative update and chooses to use the DAQ 'potential to potential' netting policy.
- These questions allow the DAQ to assist in the determination of which regulatory requirements apply to the registrant.

DAQ Action

- None.
- None.

COMMENT #87

Application Attachment R – APCD/ERD Data Sheets.

- Consistent with its comments elsewhere, all references to "Emission Reduction Device" should be changed to "Process Modification."
- Comments on the "Vapor Combustion" form on page 29:
  The form prompts the registrant to "Describe all operating ranges and maintenance procedures required by the manufacturer to maintain the warranty. *(If unavailable, please indicate).*" The purpose and relevance of this information is unclear. Further, in many cases specific units will not have been purchased yet at the time that the registration is filled out; by requiring this type of extremely specific information, the agency is encouraging last-minute permitting and precluding permitting ahead, which thereby creates a need for permits to be processed in a more expedited fashion than they otherwise would have been. WVONGA requests clarification/confirmation that a permit application may be submitted without this specific information (i.e., such that the information would be indicated as "unavailable" here on the form) and the application would still be considered "complete" for purposes of its processing by the agency in accordance with applicable statutory timeframes.
- Comments on the "Adsorption System" form on page 31:
  It is unclear what certification WVDAQ is referring to by the question "Has the control device been tested by the manufacturer and certified?" If the purpose of the question is to determine whether the control efficiency is guaranteed, that information is on the form elsewhere. WVONGA requests the removal of this question.

Received From: WVONGA

DAQ Response

- The term 'modification' is defined in 45CSR13, therefore, ERDs as described in this section are not modifications. Section 8.1 outlines possible control and emission reduction devices meeting the scope of this section.

  Possible control and emission reduction devices meeting the scope of this section include: (1) control devices used to control VOC and HAP emissions from the tanker truck loading operations; (2) control devices used to control VOC and HAP emissions from the storage vessel(s) below the NSPS, Subpart OOOO threshold of 6 tpy VOC. Control devices that are permitted under a legally and practically enforceable state permit achieve a "federally enforceable PTE" for VOC emissions at the storage vessels; and (3) control devices used to control VOC and HAP emissions from dehydration units.

- This requirement ensures that the vapor combustor is being operated per manufacturer's recommendations. Otherwise, non-compliance may occur. If the information is unavailable, please indicate why.

- All of the requested information on this form is not included in this question. Therefore, this question must be answered and the form must be completed.

DAQ Action
None.

COMMENT #88
Application Attachment S – Emission Calculations.

- WVONGA requests that WVDAQ make its emissions summary sheets available in Excel format. This will make the provision of the requested information much simpler and foster consistency.
- WVONGA notes that it is unnecessarily duplicative to provide emissions on separate forms AND here. This increases the likelihood of unintentional errors and confusion without any corresponding benefit. Information should only have to be provided once.
- WVONGA requests clarification regarding what the agency intends by requiring "speciated emissions calculations."
- For purposes of clarity, WVONGA recommends the following revision to this language: "If calculations are based on a compositional analysis of the gas, attach the laboratory analysis. Include the following information: the location that the sample was taken ~~as representative~~ (and whether the sample was taken from the actual site or a representative site); the date the sample was taken; ~~whether the sample was taken from the actual site or a representative site~~; and, if the sample is considered representative ..."

Received From: WVONGA

DAQ Response

- DAQ will make the emissions summary sheets available in MS Excel on our website upon issuance of this permit.
- The standardized forms developed by the DAQ expedite internal permit application review.
- Speciated emissions calculations must be included for HAPs. The HAP emissions shall include formaldehyde, benzene, toluene, ethylbenzene, xylenes and hexane. Totals HAPs shall also be included. This information is necessary in making major source and other regulatory applicability determinations.
- DAQ agrees with suggested change.

DAQ Action

- DAQ will make the emissions summary sheets available in MS Excel on our website upon issuance of this permit.
- None.
- None.
- The suggested change was made.

COMMENT #89
Application Attachment T- Facility Wide Emissions Summary Sheet
For clarity, WVONGA suggests retitling the form on page 36 "Requested Permitted Potential to Emit for Facility."

Note: The same comment applies to the "Facility Wide HAP Controlled Emissions Summary Sheet" on page 35.
Received From: WVONGA

DAQ Response
Sections 1.1.1 and 1.1.2 of General Permit G70-B establishes the maximum annual emission limit of any registered facility. Attachment T summarizes the facility's potential to emit (PTE) in order to show that Sections 1.1.1 and 1.1.2 will be met. Therefore, Attachment T is not a PTE request made by a registrant.

DAQ Action
None.

COMMENT #90
Application Attachment U – Class I Legal Advertisement.
With regard to the "Air Quality Permit Notice" on page 37 of the forms, WVONGA recommends adding a header to this page reflecting that this constitutes a "Recommended Template." If the agency intends to reject permit applications for not following the exact wording of this notice—despite the lack of any regulatory authority for being so prescriptive—then that should be very clearly stated to minimize unnecessary delays.
Received From: WVONGA

DAQ Response
The DAQ agrees with adding a header to the page that contains the suggested Air Quality Permit Notice.

DAQ Action
A header was added to this page that states, "RECOMMENDED PUBLIC NOTICE TEMPLATE".