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Response to Public Comment

Class II General Permit Number G70-A

For the Prevention and Control of Air Pollution in regard to the
Construction, Modification, Relocation, Administrative Update
and Operation of Oil and Natural Gas Production Facilities
Located at the Well Site

Date: October 18, 2013

Response to Public Comment

The West Virginia Division of Air Quality (DAQ) has developed this *Response to Public Comment* regarding the draft *Class II General Permit G70-A for the Prevention and Control of Air Pollution in regard to the Construction, Modification, Relocation, Administrative Update and Operation of Oil and Natural Gas Production Facilities Located at the Well Site*. This document serves to provide agency response to public comment. Pursuant to 45CSR13-6.5, DAQ has reviewed and appropriately addressed comments received by the public.

If similar comments were received, the comments were consolidated. There are 86 comments addressed in this document. Each comment includes the summary of the comment, which commenter(s) provided the comment, indication if the comment was supported by another commenter, DAQ response to the comment, and DAQ action as a result of the comment.

Comments were received by and/or on behalf of the following individuals, groups, and organizations: (1) SAIC Energy Environment & Infrastructure, LLC; (2) George Monk and Molly Schaffnit; (3) Antero Resources; (4) Chesapeake Appalachia, LLC; (5) Marcellus Shale Coalition; (6) Wetzel County Action Group; (7) CONSOL Energy, Inc; (8) Group Against Smog & Pollution (GASP), Wetzel County Action Group, WV Surface Owners' Rights Organization (WV SORO), Ohio Valley Environmental Coalition, and WV Citizens Action Group (WV-CAG); and (9) WV Oil and Natural Gas Association and Independent Oil and Gas Association of WV.

This document is organized as follows:

- Section I addresses comments received regarding the Draft General Permit G70-A.
- Section II addresses comments received regarding the Draft Engineering Evaluation / Fact Sheet associated with the Draft General Permit G70-A.
- Section III addresses comments received regarding the Draft Application Forms and Instruction Documents associated with the Draft General Permit G70-A.

The Section I comments are further organized according to the section reference in the draft General Permit that the comment is in reference to. There is a “general comments” area in addition to specific references to sections within the Draft General Permit G70-A.

SECTION I: Comments Regarding the Draft Permit G70-A

GENERAL COMMENTS - ENDORSEMENTS

COMMENT #1:

We support the comments for the draft General Permit G70-A made by the Group Against Smog and Pollution (GASP).

Received by: George Monk and Molly Schaffnit

DAQ Response

DAQ acknowledges your support of GASP comments. Please refer to DAQ responses to comments received from GASP, WV SORO, Ohio Valley Environmental Coalition, WV Sierra Club, Wetzel County Action Group, and WV-CAG.

DAQ Action

No action taken.

COMMENT #2:

Antero wishes to voice its support and incorporates herein the comments of the West Virginia Oil and Natural Gas Association and the Independent Oil and Gas Association of West Virginia as if fully set forth herein.

Received by: Antero Resources

DAQ Response

DAQ acknowledges Antero's support of WVONGA and IOGA comments. Please refer to DAQ responses to comments received from WVONGA and IOGA.

DAQ Action

No action taken.

COMMENT #3:

The Marcellus Shale Coalition (MSC) fully supports the comments on the Draft G70-A submitted by the West Virginia Oil & Natural Gas Association and the Independent Oil and Gas Association of West Virginia to WV DEP on May 17, 2013.

Received by: Marcellus Shale Coalition

DAQ Response

DAQ acknowledges Marcellus Shale Coalition's support of WVONGA and IOGA comments. Please refer to specific DAQ responses to comments associated with comments received by WVONGA and IOGA.

DAQ Action

No action taken.

GENERAL COMMENTS - SCOPE

COMMENT #4:

Please reconsider the glycol dehydrator exclusion. Both Ohio EPA and PADEP have allowed for the inclusion of glycol dehydration units in their general permits (GP-12 and GP-5, respectively). This equipment is fundamental to the production of shale gas and the exclusion of these units from the general permit will result in unnecessary delays in permitting such equipment in the future. Production facilities with dehydration units are relatively common and we request that the DAQ broaden the scope of the permit to include these pieces of equipment for the purpose of reducing the permitting burden on both the industry, and the DAQ.

Received by: SAIC, Antero Resources, Chesapeake, CONSOL, WVONGA, IOGA

Supported by: Marcellus Shale Coalition

DAQ Response

Although DAQ has not received many R13 construction applications to date with dehydration units included in the emissions unit table, DAQ is aware that there are some well sites in the field that do have dehydration units. DAQ also acknowledges that the natural gas industry is a growing and evolving industry in West Virginia. DAQ agrees with the commenters and after reevaluation has decided to expand the applicability of the G70-A to include glycol dehydration units.

DAQ Action

DAQ has added sections 16, 17, 18, and 19 to the final version of the G70-A general permit to include glycol dehydrators and has updated the applicability section 2.3.1 of the G70-A general permit accordingly. DAQ has also added Glycol Dehydration Unit Reboilers into the title of Section 7.0 to be included with the other fuel burning units in the final version of the G70-A. Additionally, requirements for dehydration unit condensers have been added to section 14.0 (Control Devices Not Subject to NSPS, Subpart OOOO) in the final version of G70-A. The corresponding support documents have also been revised to reflect the change in scope as a result of DAQ's response to this comment.

COMMENT #5:

The absence of non-VRU compression units is notable and disappointing.

Received by: SAIC Energy

DAQ Response

Section 10.0 of the Draft G70-A general permit provides source specific requirements for "Natural Gas-Fired Compressor Engine(s) (RICE)". This section provides requirements for natural gas-fired compressor engines identified in the scope of this section. This section is not limited to VRU compressor engines.

DAQ Action

The final version of the G70-A Engineering Evaluation/Fact Sheet has been updated to clarify in the description that Section 10.0 is not limited to VRU compression units.

COMMENT #6:

This permit does not include provisions for those emission units with construction dates (as opposed to installation dates) prior to the applicable New Source Performance Standards. Not every storage vessel, reciprocating or centrifugal compressor, and continuous-bleed natural gas-driven pneumatic controller was constructed after the applicability date of August 23, 2011 (NSPS, Subpart OOOO).

Received by: SAIC Energy

DAQ Response

Existing emission units are subject to the requirements of the G70-A general permit if a registrant is required to obtain (or was required to obtain) a permit in accordance with the requirements of 45CSR13. Determinations regarding permit applicability is provided under Title 45 of the Legislative Rule; Department of Environmental Protection; Air Quality, Series 13 “*Permits for construction, modification, relocation and operation of stationary sources of air pollutants, notification requirements, administrative updates, temporary permits, general permits, permission to commence construction, and procedures for evaluation*”. The original effective date of 45CSR13 was June 1, 1974. This authority for the permit is stated under the general conditions of the G70-A general permit, section 2.2.

General storage vessel requirements are found in section 6.0 of the general permit and apply to any storage vessel listed in the general permit registration. If the storage vessel is subject to NSPS, Subpart OOOO, those additional requirements are located in section 12.0 of the general permit. Compressor engine requirements are found in section 10.0 of the general permit and apply to any natural gas-fired compressor engine listed in the general permit registration. There are no NSPS, Subpart OOOO requirements for compressor engines in this general permit. There are no requirements for continuous-bleed natural gas-driven pneumatic controllers if they are not subject to NSPS, Subpart OOOO.

DAQ Action

No action taken.

COMMENT # 7:

DAQ should consider an additional permit section for storage vessels that allows owners or operators to accept a federally-enforceable limit for potential VOC emissions in order to avoid being subject to any requirements for storage vessel affected facilities in 40 CFR 60, Subpart OOOO.

Received by: SAIC Energy

DAQ Response

Section 14.0 of the G70-A general permit (“Control Devices not subject to NSPS, Subpart OOOO”) is the permit section that provides federally-enforceable requirements for the control of

VOC emissions from storage vessels. The potential to emit for VOC emissions from storage tanks can be based on their controlled emissions when the registrant indicates in the registration application that they are subject to the requirements of this section for their pollution control device. If the controlled VOC emissions for each storage tank are below the NSPS, Subpart OOOO threshold, then the owner or operator is not subject to the additional control requirements of Subpart OOOO.

The draft scope of permit section 14.0 states:

The scope of this section is to address requirements for control devices that will be installed and operated to control air emissions at the natural gas production facility and that are not subject to NSPS, Subpart OOOO requirements. If the control device is subject to NSPS, Subpart OOOO control device and closed system requirements, they are subject to Section 12.0.

Possible control devices meeting the scope of this section include: (1) control devices used to control VOC and HAP emissions from the tank truck loading operations; and (2) control devices used to control VOC and HAP emissions from the storage tank(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 tanks.

If this comment was suggesting that DAQ allow owners or operators to use the G70-A general permit to obtain a synthetic minor permit, DAQ specifically excludes this in permit condition 2.3.1 and requires the owner/operator to obtain an R13 construction permit for any non-standard permit scenarios.

DAQ Action

No action taken.

COMMENT #8:

The permit does not include the federal NSPS, Subpart OOOO requirements for reciprocating or centrifugal compressors. Please include these requirements in a separate section of Source-Specific Requirements.

Received by: SAIC Energy

DAQ Response

Centrifugal and reciprocating compressor affected facilities located at a well site are not affected facilities under Subpart OOOO. [§60.5365] The Draft G70-A General Permit is for oil and natural gas production facilities located at the well site. These requirements are therefore not applicable to the Draft G70-A General Permit.

DAQ Action

No action taken.

COMMENT #9:

Compression ignition engines (i.e., diesel-fueled) should not be excluded from coverage under draft permit. WVDEP does not have a general permit for this type of engine so it will be difficult to obtain permit coverage for such equipment if needed at the same facility within the same time frame. The Ohio EPA's GP-12 includes diesel engines if they are certified to the Tier 3 standards (40 CFR 89.112) or test data can be provided to demonstrate those standards will be met and while PADEP's new GP-5 does not include diesel engines, PADEP already has other general permits that can be used to expeditiously permit that type of equipment. We request that compression ignition engines be included in allowable sources for coverage under the permit using language consistent with Ohio EPA's GP-12. (Antero Resources only)

It is requested that DAQ expand the scope of the General Permit to cover operations with diesel generators. Expanding the scope to cover these units would be beneficial to operations and would reduce the permitting burden on both DAQ and industry.

Received by: Antero Resources, CONSOL, WVONGA, IOGA

Supported by: Marcellus Shale Coalition

DAQ Response

DAQ has agreed to expand the scope of the G70-A general permit to include glycol dehydration units in response to comment #4 in an attempt to make the general permit as flexible and comprehensive as possible; however, DAQ will not be expanding the scope to include diesel generators at this time. Natural gas is abundant at the oil and natural gas well production facilities and is the likely fuel choice for the engines. DAQ has not seen evidence of diesel generators being used at the sites during the natural gas production phase. Facilities that choose to use diesel generators have the option of applying for a Rule 13 permit. If DAQ does observe evidence that there is a need to include diesel generators in the future, DAQ is willing to consider expanding the scope of the G70-A general permit at a later date.

DAQ Action

No action taken.

COMMENT #10:

It is recommended that DAQ provide a clearer distinction between those sections of the regulations that are applicable to new equipment and those that are applicable to existing equipment.

Received by: CONSOL, WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

Existing emission units are subject to the requirements of the G70-A general permit if a registrant is required to obtain (or was required to obtain) a permit in accordance with the requirements of 45CSR13. Determinations regarding permit applicability is provided under Title 45 of the Legislative Rule; Department of Environmental Protection; Air Quality, Series 13 "*Permits for construction, modification, relocation and operation of stationary sources of air pollutants, notification requirements, administrative updates, temporary permits, general permits, permission to commence construction, and procedures for evaluation*". The original

effective date of 45CSR13 was June 1, 1974. This authority for the permit is stated under the general conditions of the G70-A general permit, section 2.2.

Please also refer to DAQ response to comment #6. The G70-A general permit registrations include a permit section applicability based on the equipment and information identified in the emissions unit table of the registration application.

DAQ Action

No action taken.

GENERAL COMMENTS - OTHER

COMMENT #11:

The commenter applauds the State of West Virginia for their efforts to provide consistent, streamlined air permits for the oil and natural gas industry, and appreciate the opportunity to provide comments and suggestions on the DRAFT G70-A General Permit documents. This permit represents a step forward to addressing the air permit needs of industry stakeholders, and the comments and suggested offered in this document are intended to further clarify and refine this and future permitting actions taken by the State.

Received by: SAIC Energy

DAQ Response

WV DAQ appreciates the comment.

DAQ Action

No action taken.

COMMENT #12:

The commenter takes great interest in the standards the West Virginia Division of Air Quality (DAQ) proposes in connection with natural gas operations in the state. The commenter understands the Agency's need to develop a General Permit to incorporate the requirements of 40 CFR part 60 subpart OOOO pertaining to the oil and gas industry and appreciate the desire to create a product that will be beneficial for all concerned. The commenter provided comments to help the DAQ construct a permit that will effectively and accurately incorporate the federal requirements as well as develop an effective and efficient permitting mechanism.

Received by: Chesapeake

DAQ Response

WV DAQ appreciates the comment.

DAQ Action

No action taken.

COMMENT #13:

The members of the Associations have a keen interest in all aspects of environmental regulation associated with oil and gas activities including the proposed draft Class II General Permit G70-A. Establishing general permits of this nature is beneficial to both industry and DAQ and the Associations look forward to working cooperatively with DAQ to develop a general permit that is protective of the environment while reducing the administrative burden on both the agency and the individual members of the Associations.

Received by: WGONGA and IOGA

DAQ Response

WV DAQ appreciates the comment.

DAQ Action

No action taken.

COMMENT #14:

A significant portion of the requirements contained in the Draft General Permit are driven by the United States Environmental Protection Agency's ("USEPA") newly issued regulations entitled "Oil and Natural Gas Sector: New Source Performance Standards and National Emissions Standards for Hazardous Air Pollutants Reviews" (hereafter referred to as NSPS Subpart OOOO"). 77 Fed. Reg. 49491 (August 16, 2012). Sections 5.0, 8.0, 12.0, 14.0 and 15.0 of the Draft General Permit purport to incorporate those portions of NSPS Subpart OOOO that pertain to sources covered by the Draft General Permit. Significantly, on April 12, 2013 EPA proposed substantial revisions to the provisions of NSPS Subpart OOOO dealing with storage vessels, which would directly impact the requirements, set forth in Section 12.0 of the Draft General Permit.

As a result of these changes to NSPS Subpart OOOO, the General Permit will have to be modified – possibly twice – to comport with the changes to the applicable regulations at the federal level. Although it is the practice of DAQ to not incorporate by reference the applicable federal regulations in favor of having all of the applicable regulations set forth in full in a single document, the Associations suggest that incorporation by reference of the relevant portions of NSPS Subpart OOOO may be a less cumbersome and confusing method in which to deal with federal regulations that we know are already in flux.

Received by: CONSOL, WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

The draft general permit G70-A was out for public comment at the time that EPA proposed the amendments. DAQ conducted a thorough review of EPA's April 12, 2013 proposed amendments as a result of the reconsideration of certain issues related to implementation of the storage vessel provisions to NSPS, Subpart OOOO to assess the impact on the draft general permit G70-A.

The extent of the amendments for the storage vessel affected facilities is considerable. EPA expected a final action date of July 31, 2013 on the proposed amendments and they were signed

final on August 2, 2013 and published to the Federal Register on September 23, 2013. Further reconsideration of the monitoring and testing requirements for the storage vessel affected facilities by the EPA is not expected until the end of the year 2014.

DAQ agrees that given the extent of the amendments to storage vessel affected facilities, there would be more confusion created if the NSPS Subpart OOOO requirements were included prior to the EPA finalizing the amendments. DAQ believes there would be great potential for confusion for DAQ, for the industry, and for the public if the DAQ were to issue the final G70-A general permit with NSPS conditions that would be changing in the short term.

Based on the extent of the amendments specifically for the storage vessel affected facilities, DAQ decided to issue the final version of G70-A after the April 12, 2013 proposed amendments were finalized and published by the EPA. These amendments were signed final by the EPA on August 2, 2013. The amendments were published in the Federal Register on September 23, 2013 and became effective on that date.

DAQ is not changing its philosophy in regards to incorporating federal regulations by reference.

The amendments to the pneumatic controller affected facilities provide clarification to the standards. Any changes as a result of the final amendments for pneumatic controller affected facilities in section 8 and natural gas well affected facilities in section 5 of the G70-A general permit will be included in the final version of the G70-A.

DAQ acknowledges the inclusion of section 14.0 in this comment because some of the requirements in this section were driven by NSPS, Subpart OOOO requirements. This section was also reviewed to identify possible changes as a result of the amendments.

There are no NSPS, Subpart OOOO requirements provided in section 15.0.

In addition to the sections addressed in this comment, DAQ would like to mention the following sections that included NSPS, Subpart OOOO requirements that were included in the finalized amendments that will be addressed by DAQ for completeness of response to this comment: (1) section 2.4.4 had some definitions revised and added; (2) section 4.1.4.e included the definition of a storage vessel affected facility; and (3) section 6.1.4 of the draft general permit included the emissions determination requirements from NSPS, Subpart OOOO along with the related recordkeeping requirement in section 6.4.2.

DAQ Action

The final version of the G70-A general permit has been updated to include EPA's amendments to NSPS, Subpart OOOO that were published on September 23, 2013 and as further described in the response. The revised requirements to the final version of the G70-A general permit are identified below by section.

Section 2.4.4 definitions: condensate, flow line, group 1 storage vessel, group 2 storage vessel, intermediate hydrocarbon liquid, produced water, and storage vessel.

DAQ revised section 4.1.4.e.

DAQ revised the following requirements in Section 5.0: 5.1.2.4, 5.1.3.a.3, 5.1.3.a.4, 5.1.4.1, 5.4.1 intro, 5.4.1.v, 5.5.1, and 5.5.2.

DAQ revised the storage vessel emissions determination requirements Section 6.0: 6.1.4, 6.1.9, 6.10 and the corresponding recordkeeping requirement 6.4.3.

DAQ revised the following requirements in Section 8.0: 8.1.2, 8.1.3, 8.1.4, 8.1.8, 8.1.10, 8.4.1, and 8.5.1.

DAQ revised Section 12.0 as follows: 12.1.1 (§ 60.5395) has been replaced in its entirety; 12.1.2 (§ 60.5411) has been replaced in its entirety; 12.1.3 (§ 60.5412) has been replaced in its entirety; 12.1.4 (§ 60.5410 (e,h,i)) has been replaced in its entirety; 12.1.5.1 intro revised as amended; 12.2.1 (§ 60.5415(e)) has been replaced in its entirety; 12.2.2. (§ 60.5416) has been replaced in its entirety; 12.2.3 has been revised as amended (§ 60.5417); 12.3.1 (§ 60.5413) revised as amended; 12.4.1 (§ 60.5420(c)) has been replaced in its entirety; 12.5.1 (§ 60.5420(a)) revised as amended; and 12.5.2 ((§ 60.5420(b)) revised as amended.

DAQ revised the following requirements in Section 14.0 that were based on NSPS, Subpart OOOO and affected by the amendments: 14.1.2.3, 14.1.3, 14.2.1, 14.2.2, 14.2.3, 14.3.1, 14.3.4, 14.4.2, 14.4.5, and 14.4.9.

COMMENT #15:

Timing. The Associations request clarification that owners and operators are not required to obtain a General Permit prior to performing well completions in compliance with the requirements of NSPS Subpart OOOO, consistent with DAQ's practice regarding well completions to date. The inclusion of NSPS Subpart OOOO's requirements relating to well completions in Section 5.0 of the General Permit create confusion regarding whether a General Permit is necessary prior to conducting these activities. Similarly, the Associations are unclear as to whether DAQ will require operators to obtain coverage under the General Permit for the installation of new storage tanks and pneumatic devices.

Received by: WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

Natural Gas Wells:

As a result of the numerous comments and questions received in regards to section 5.0, DAQ did reconsider whether section 5.0 should be removed from the final version of the G70-A general permit. DAQ during its reconsideration, decided to keep section 5.0 in the G70-A general permit because the NSPS, Subpart OOOO requirements are applicable. There is a difference between what triggers a permit or what triggers a permit to be modified and what is an applicable requirement. Applicable requirements must be included in general permits.

DAQ has consistently provided guidance that air permits are not required in advance of well completions, except in possible cases of extended flaring that could trigger the need for a permit. The well completion activities on their own typically do not trigger the amount of emissions that would require a permit under 45CSR13 because they typically would not meet the definition of a "stationary source" per 45 CSR13 §2.24. At such time the production facility potential

emissions are evaluated with all of the planned emission units for the facility is typically when the PTE emissions would trigger the need for a permit.

DAQ has provided instructions for the well completion notifications that occur prior to the facility obtaining the G70-A general permit registration.

Even though many of the NSPS Subpart OOOO requirements for the natural gas well affected facilities occur prior to the owner/operator obtaining the G70-A general permit, the requirements are still applicable to the facility. As stated previously, all applicable requirements must be included in general permits.

New Pneumatic Devices:

For the pneumatic device affected facilities in section 8.0 of the G70-A general permit, there are no additional requirements beyond what is required by NSPS, Subpart OOOO. DAQ does not require that each pneumatic controller be uniquely identified in the Emissions Unit Table of the G70-A general permit registration and therefore, there would not be a need to update the permit registration for the addition of any new pneumatic devices, provided that the applicability to section 8.0 was previously included in the registration.

New Storage Tanks:

The determination of whether or not a registration modification to the G70-A general permit is required is driven by the requirements of 45CSR13 based on the amount of increased potential emissions from any potential new storage tank emission units and if the proposed change would trigger a modification per 45CSR13-2.17.

Administrative updates to general permit registrations follow the requirements of 45CSR13, section 4.0. A permit determination in accordance with 45CSR13-5.13 may provide notification to DAQ of any potential new emission units that are not listed in the G70-A general permit registration if an administrative update or modification to the general permit registration is not required and would satisfy condition 1.1.1 of the G70-A general permit. Administrative Updates and Modifications to general permit registrations are addressed in permit conditions 2.7.1 and 2.8.1 of the G70-A general permit.

DAQ Action

No action taken.

COMMENT #16:

To handle gaps in coverage due to changes in the federal rules referenced in this permit, we recommend adding language that will provide coverage under the general permit should the federal rule be amended. We have provided the following suggested language: *Any changes to 40 CFR Part 60, subpart OOOO shall supersede the subpart OOOO requirements contained in this permit.*

Received by: Chesapeake

DAQ Response

DAQ agrees with this comment not only for NSPS, Subpart OOOO requirements, but also for other federal requirements that are included in the G70-A general permit. DAQ will include the

suggested language for all federal requirements included in the final version of the G70-A general permit including 40 CFR Part 60, subpart OOOO (Sections 5.0, 8.0, and 12.0). DAQ will extend the action to include Sections 13.0 (NSPS, Subpart JJJJ), Section 15.0 (NESHAP, Subpart ZZZZ), and the newly added Sections 17.0, 18.0, and 19.0 (NESHAP, Subpart HH).

DAQ Action

The following requirements were added to the final version of G70-A: 5.1.6, 8.1.11, 12.1.7, 13.1.7, and 15.1.10.

COMMENT #17:

G70-A cannot establish individualized terms and conditions in general permit registrations. WVDEP's minor NSR rules provide public notice and comment opportunities prior to issuance of a new or revised Class II general permit and at the time an applicant applies for a Class II general permit registration for a specific facility; however, WVDEP does not provide a "Notice Level B" or "Notice Level C" opportunity for public comment prior to issuing a general permit registration. Because general permit registrations are not subject to notice level B or C, the public will not have an opportunity to review a draft of a facility-specific general permit registration or "an engineering evaluation supporting [DAQ's] intent to issue such a permit [45CSR 13 §§ 8.3, 8.9, 8.4,8.5, and 8.7]

In many circumstances, the limited opportunities for public participation WVDEP proposes would be sufficient to satisfy EPA's minor NSR program requirements. However, as detailed in comments 18, 19, 20, 21, and 22 in the context of G70-A, WVDEP's proposed public participation requirements are insufficient and contrary to both state and federal regulations.

Received by: GASP, WV SORO, Ohio Valley Environmental Coalition, WV Sierra Club, Wetzel County Action Group, WV-CAG

Supported by: George Monk and Molly Schaffnit

DAQ Response

Comment #17 is directed to multiple references within section 8 of 45 CSR 13 regarding the public review procedures. DAQ must comply with the public review requirements of 45CSR 13 the latest version of which became effective June 1, 2009 under the authority of W. Va. Code §22-5-1 et seq. Legislative Rule 45CSR13 is not in draft status, nor is it out for public notice. DAQ has not proposed changes to the public participation requirements.

DAQ has met the requirements of 45CSR13-8.9 in regards to general permit G70-A. DAQ will ensure that the requirements of 45CSR13-8.3 for applications submitted for registrations to the Class II G70-A general permit have been met prior to issuing a G70-A general permit registration. DAQ has nine (9) existing general permits, seven (7) of which are Class II general permits that follow the same public review procedures. It is further noted that EPA did not provide comment on the public review process that is both currently in use and is SIP approved.

General permit G70-A provides terms and conditions that all owners and operators are subject to if they choose to apply for registration to the G70-A general permit.

Please also refer to DAQ responses to comments 18, 19, 20, 21, and 22.

DAQ Action

No action taken.

COMMENT #18:

Individualized general permit registration terms and conditions are inconsistent with the rationale behind the federal general permit approval.

Typically, air permitting authorities need not provide an opportunity for public comment prior to allowing an individual source to construct pursuant to a general permit so long as the agency provided an opportunity at the time the standardized general permit itself was created. The rationale for this policy is such limited opportunity for public comment is sufficient to satisfy 40 C.F.R. §51.161 because general permits are standardized documents that will not be tailored on a case-by-case basis to individual sources. Additional opportunity for public comment is unnecessary for facility-specific authorizations to construct pursuant to the general permit because such authorizations entail no substantive conditions.

However, WVDEP's proposed G70-A provides for individualized permit conditions and emission limits in facility-specific general permit registrations. Such a policy is inconsistent with the rationale for allowing facility-specific general permit issuances to avoid public review and deprives the public of its right to participate in agency permitting decisions. [71 FR 5979, 5981]

References to the comment include G70-A §§ 6.1.1-3, 7.1.1-3, 10.1.1-2, 11.1.1-3; further, the draft engineering evaluation includes numerous statements suggesting PTE limits would be specified in individual G70-A registrations.

Received by: GASP, WV SORO, Ohio Valley Environmental Coalition, WV Sierra Club, Wetzel County Action Group, WV-CAG

Supported by: George Monk and Molly Schaffnit

DAQ Response

The G70-A general permit registration does not have individualized terms and conditions. The G70-A General Permit Registration includes facility specific information based on the information that the owner/operators provides in the application for registration to the G70-A General Permit. The G70-A Registration states:

The permittee identified at the facility listed below is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of General Permit G70-A.

The G70-A general permit provides the terms and conditions that all registrants must comply with. Section 1.1.1 of the G70-A general permit requires that only those emission units/ sources as identified in the G70-A general permit registration are authorized at the registered facility. Section 1.1.2 of the G70-A states:

In accordance with the information filed in the G70-A general permit registration application, the equipment/ processes identified in the Emissions Unit Table of the G70-A general permit registration shall be installed, maintained, and operated so as to

minimize any fugitive escape of pollutants, shall not exceed the listed maximum design capacities, shall use the specified control devices, and shall not exceed the emission limits listed in the general permit registration.

The Clean Air Act (CAA) states that each state shall have the primary responsibility for assuring air quality within the entire geographic area comprising such state by submitting an implementation plan for such state which will specify the manner in which national primary and secondary ambient air quality standards will be achieved and maintained within each air quality control region in such state. [42 USC § 7407 (a)]

The CAA requires New Source Review (NSR) permits. States are able to customize the requirements of the minor NSR program as long as their program meets minimum requirements. The permit agency's minor NSR program is part of the State Implementation Plan (SIP). WV legislative rule 45 CSR 13 is part of the approved SIP program and allows for the development of general permits. The rule requires that the designation of Class I or Class II general permit be made at the time the permit goes through public comment and adoption for the source category governed by the general permit. This was done and the designation for the G70-A general permit is Class II.

The Secretary may develop and issue Class I and Class II general permits under this rule authorizing the construction, modification, relocation and operation of a category of sources by the same owner or operator or involving the same or similar processes or pollutants upon the terms and conditions specified in the general permit.
[45CSR13 §5.12]

The G70-A general permit met the requirements for public notice as required by 45CSR13 §8.9 that this response to comments document addresses. The public notice for the G70-A general permit already included the opportunity to review the engineering evaluation for the G70-A general permit.

Class II general permit registrations are subject to the public notice "Level A" requirements under 45CSR 13 §8.3 that states:

At the time that an application for ...Class II general permit registration is filed, the applicant shall also place a Class I legal advertisement in a newspaper of general circulation in the area where the source is or will be located. No such permit or general permit registration shall be issued to any applicant until at least thirty (30) days' notice has been provided to the public. The advertisement shall contain at a minimum, the name of the applicant, the type and location of the source, the type and amount of air pollutants that will be discharged, the nature of the permit being sought, the proposed start-up date for the source and a contact telephone number for more information.

Furthermore, one of the references that is cited in the comment is from Part 71. Part 71 sets forth the federal air quality operating permits permitting program consistent with the requirements of Title V of the CAA. The G70-A general permit is a minor source general permit. The G70-A clearly states in the applicability requirements under the general conditions that any natural gas well affected facility which is a major source as defined in 45CSR14, 45CSR19, or 45CSR30 are not eligible for the G70-A general permit.

The applicability, including the statement of non-eligibility of major sources is described in the engineering evaluation fact sheet for the G70-A general permit. The emissions section of the engineering evaluation provides the maximum potential emissions for the G70-A general permit.

DAQ Action

Relevant sections of the engineering evaluation have been revised in the final to clarify the relationship between the G70-A general permit and the G70-A general permit registration that will be issued to applicants that have demonstrated they meet the requirements of the G70-A general permit.

COMMENT #19:

Individualized general permit registration terms and conditions are not federally enforceable because they are not subject to public review.

Received by: GASP, WV SORO, Ohio Valley Environmental Coalition, WV Sierra Club, Wetzel County Action Group, WV-CAG

Supported by: George Monk and Molly Schaffnit

DAQ Response

The G70-A general permit met the requirements for public notice as required by 45CSR13 §8.9. The legal notice was published on March 29, 2013. The public comment period was extended from April 29, 2013 until May 17, 2013. Class II general permit registrations are subject to the public notice “Level A” requirements under 45 CSR 13 §8.3.

In accordance with section 5.7.b of 45 CSR 13, DAQ shall issue a general permit registration, unless it is determined that the proposed construction, modification, relocation and operation will not be in accordance with this rule.

The G70-A Class II general permit will be issued in accordance with the requirements of 45CSR13.

DAQ Action

No action taken.

COMMENT #20:

The G70-A standard terms and conditions are unenforceable blanket emission limitations.

Received by: GASP, WV SORO, Ohio Valley Environmental Coalition, WV Sierra Club, Wetzel County Action Group, WV-CAG

Supported by: George Monk and Molly Schaffnit

DAQ Response

DAQ assumes that this comment is in reference to the facility wide emission limits in section 4.1.2 and 4.1.3 of the G70-A general permit. The facility wide emission limits include recordkeeping requirements to demonstrate compliance. All terms and conditions of the G70-A general permit are enforceable under 45CSR13 and W. Va. Code §§22-5-1, et seq.

DAQ Action

No action taken.

COMMENT #21:

As proposed, G70-A is contrary to 45CSR13 §8.5 and W. Va. Code §22-5-11(g)(2).

45CSR13 §8.5 requires WVDEP to provide a “Notice Level C” public participation opportunity for “sources for which the agency intends to issue a permit to limit physical and operational capacity below major stationary source thresholds.” Because the restriction capable of limiting G70-A sources to below major source thresholds appears only in G70-A permit registrations, these registrations must meet notice level C public participation requirements pursuant to 45 CSR 13 §8.5.

Proposed G70-A also appears to be contrary to W. Va. Code §22-5-11-(g)(2), which indicates the legislature intended general permits to apply uniform terms and conditions to sources that are “the same or similar”.

Received by: GASP, WV SORO, Ohio Valley Environmental Coalition, WV Sierra Club, Wetzel County Action Group, WV-CAG

Supported by: George Monk and Molly Schaffnit

DAQ Response

W. Va. Code §22-5-11(g)(2) states:

The secretary shall, within a reasonable time not to exceed forty-five calendar days after the date the secretary determines that an application is complete, issue a registration under a general permit applicable to any of these sources, unless he or she determines that the proposed construction, modification or relocation will not be in accordance with this article or rules promulgated hereunder. General permits are permits authorizing the construction, modification or relocation of a category of sources by the same owner or operator or involving the same or similar processes or pollutants upon the terms and conditions specified in the general permit for those types of sources.

The G70-A Class II general permit meets the requirements of W. Va. Code §22-5-11(g)(2). The “same or similar” process is defined in the general conditions section of the G70-A general permit. The purpose provided in section 2.1 of the G70-A states:

The purpose of this Class II General Permit is to authorize the construction, modification, administrative update, relocation, and operation of eligible natural gas production facilities located at well sites through a Class II General Permit Registration process. The requirements, provisions, standards and conditions of this Class II General Permit address the prevention and control of regulated pollutants from the operation of a natural gas production facility located at a well site.

Section 2.3 of the G70-A provides additional clarification to define by applicability and by exception facilities that are eligible for G70-A general permit registration and states:

All natural gas exploration and production facilities designed and operated for the purpose of the production of natural gas from the natural gas well and is included in NAICS code 211111 (Crude Petroleum and Natural Gas Extraction) and/or SIC code 1311 (Crude Petroleum and Natural Gas) are eligible for General Permit registration except for:

- a. Any natural gas well affected facility which is a major source as defined in 45CSR14, 45CSR19, or 45CSR30.*
- b. Any natural gas production facility that is located in Putnam County, Kanawha County, Cabell County, Wayne County, or Wood County and is required by 45CSR21 to conduct a Reasonably Available Control Technology (RACT) Analysis.*
- c. Any natural gas production facility that has a fuel burning unit that is not fueled by natural gas.*
- d. Any natural gas production facility with a compression ignition engine (e.g. fueled by diesel).*
- e. Any natural gas production facility with a dehydration unit.*
- f. Any natural gas processing plant (e.g. production of ethane, propane, butane, and pentane).*
- g. Any natural gas sweetening plant.*
- h. Any natural gas transmission compressor station.*
- i. Any natural gas production facility subject to NSPS, Subpart Kb.*
- j. Any natural gas well affected facility which will require an individual air quality permit review process and/or individual permit provisions to address the emission of a regulated pollutant or to incorporate regulatory requirement(s) other than those established by General Permit G70-A.*

DAQ believes that natural gas production facilities located at a well site and described in sections 2.1 and 2.3 of the G70-A general permit meets the requirements of owners or operators involved in the same or similar processes. Additionally, the front page also describes the “same or similar” process as “Class II General Permit G70-A 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 also provides description for the same or similar processes included in the general permit.”

The duty to comply requirement along with all of the requirements specified in the G70-A general permit addresses that the G70-A general permit satisfies that the terms and conditions are specified in the general permit for those types of sources. The duty to comply clause in §2.9.2 of the G70-A general permit states that:

The registrant must comply with all applicable conditions of this Class II General Permit. Any General Permit noncompliance constitutes a violation of the West Virginia Code, and/or the Clean Air Act, and is grounds for enforcement action by the Secretary or USEPA.

Notice Level C required by 45CSR13 §8.5 is required for sources seeking a synthetic minor. The agency does not intend to issue general permit registrations to limit physical and operational

capacity below major stationary source thresholds including 45CSR14, 45CSR19, 45CSR30, and 45CSR34. Limiting the applicability of the G70-A general permit to exclude major sources is not the same as establishing physical and operational limitations for the source to be a synthetic minor. The emission limits, throughput, and design capacity that will be listed in the G70-A general permit registrations are based on potential to emit (PTE). The PTE means the maximum design capacity of a stationary source or emissions unit to emit a pollutant under its physical and operational design [45CSR13 §2.19].

DAQ Action

The final version of G70-A general permit had revisions made to some of the sections referenced in this section in response to other comments identified in this response to comment document. There was no action taken as a result of DAQ response to comment #21.

COMMENT #22:

As proposed, G70-A would allow DAQ to create individualized permit conditions in G70-A registrations. Such a policy is inconsistent with USEPA's rationale for allowing facility-specific general permit approvals to avoid public review, fails to meet the public participation requirements of the federal minor NSR program, fails to establish federally enforceable limits on PTE, fails to meet the notice requirements of 45 CSR 13 § 8.5, and conflicts with the legislative intent of W. Va. Code §22-5-11(g)(2). The final version of G70-A cannot provide for individualized permit conditions in G70-A registrations.

Received by: GASP, WV SORO, Ohio Valley Environmental Coalition, WV Sierra Club, Wetzell County Action Group, WV-CAG
Supported by: George Monk and Molly Schaffnit

DAQ Response

There is no federal minor NSR permitting program. There are only federal programs for major NSR for attainment and for non-attainment and a Title V federal program for major source operating permits. Rule 13 is DAQ's minor source permitting program. It is SIP approved.

The G70-A general permit does not allow individualized permit conditions in the G70-A registrations. All permit conditions are established in the G70-A general permit. All registrants must comply with all applicable conditions of the G70-A general permit.

Please also refer to DAQ response to comment #17, #18, #19, and #21.

DAQ Action

No action taken.

SECTION 2

COMMENT #23:

Section 2.3. We seek clarification regarding the scope of the Draft General Permit. Is a "natural gas well affected facility" the same as a "natural gas well production facility"?

Received by: WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

DAQ will use consistent terminology in 2.3.1 to clarify the scope as requested.

DAQ Action

Section 2.3.1 has been revised in the final version of general permit G70-A for consistent use of these terms.

COMMENT #24:

Section 2.3.1. - We recommend the DAQ consider modifying this section to make clear that facilities NOT primarily used for natural gas production are covered by this permit. Many operators are currently focused on the production of hydrocarbon liquids and not “natural gas” as described in this section. Facilities in the “wet” window are abundant and will continue to be the focus of many operators in the state and it is imperative they have the ability to use this permit for those liquid production operations. For the purposes of the temporary well completion/flowback operations, we understand that this permit will not apply as those activities are not covered under Subpart OOOO, but the permanent production facilities will still need an expeditious permitting mechanism such as the G70-A. We have provided the following suggested language: *All oil and natural gas production facilities designed and operated for the purpose of the production of oil and natural gas and are included in NAICS code 211111 (Crude Petroleum and Natural Gas Extraction) and/or SIC code 1311 (Crude Petroleum and Natural Gas) are eligible for General Permit registration except for.....*

Received by: Chesapeake, WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

DAQ accepts the suggested wording for section 2.3.1. “Oil and natural gas production” focuses on taking raw natural gas from underground formations. For the purposes of the G70-A general permit, “oil and natural gas production” includes “condensate” and “produced water”. This wording is also consistent with NSPS, Subpart OOOO.

DAQ Action

DAQ revised §2.3.1 introduction in the final version of general permit G70-A to reflect oil and natural gas production as eligible for the G70-A general permit. DAQ has also revised the title of the G70-A to include “oil and natural gas” in the final version for consistency.

COMMENT #25:

Section 2.3.1.a. The General Permit must acknowledge that a facility is ineligible for a general permit if it is a major source of greenhouse gases.

Received by: GASP, WV SORO, Ohio Valley Environmental Coalition, WV Sierra Club, Wetzell County Action Group, WV-CAG

Supported by: George Monk and Molly Schaffnit

DAQ Response

DAQ agrees that a facility is not eligible for a general permit if the owner/operator is a major source of greenhouse gases. DAQ did not expand on the definition of major source in this section to specifically address each type of pollutant(s) to determine major source status and instead reference the major source rules because of the level of detail.

Section 2.3.1.a excludes applicability for any oil and natural gas production facility that is a major source as defined in 45CSR14, 45CSR19, or 45CSR30. The definition of major source includes air pollutants “subject to regulation”. Greenhouse gases are included in the “subject to regulation” definition of 45CSR30 and 45CSR14 and therefore any source that would be a major source of greenhouse gases is not eligible for registration to the G70-A general permit.

DAQ Action

DAQ revised the emissions estimate section in the final version of the engineering evaluation to include the Greenhouse Gas emission limits. No action was taken on the final version of the G70-A general permit in regards to this comment.

COMMENT #26:

Section 2.3.1.f. We seek clarification on the definition of a gas processing plant. There are production facilities that may require gas conditioning equipment, such as Joules Thompson skids/valves, that extract natural gas liquids from the collected natural gas so the gas will meet pipeline specifications. These typically are not included in the definition of a gas processing plant. See 40 C.F.R. §60.5430 (defining “natural gas processing plant”).

Received by: WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

“Natural gas processing plant” is intended to have the same definition as NSPS, Subpart OOOO. A Joule-Thompson valve, a dew point depression valve, or an isolated or standalone Joule-Thompson skid is not a natural gas processing plant and are not included in the G70-A general permit.

DAQ Action

Section 2.3.1.f was revised in the final version of general permit G70-A to add the phrase “, as defined in 40 CFR §60.5430”.

COMMENT #27:

Section 2.6.2 - We also believe, with GASP, that the permit should have a limited term, requiring renewal after a set time period. This is for both the permit given to an operator and for the General Permit itself which should be open to periodic reexamination and revision.

For example, the Pennsylvania Department of Environmental Protection’s General Permit 5 (GP-5), which applies to natural gas compression and/or processing facilities, provides authorization for a term of five (5) years, after which time the permittee must re-apply. However, if construction has not commenced within eighteen (18) months, the authorization will expire.

West Virginia should take an approach similar to Pennsylvania's and set time limits on authorization validity.

Received by: George Monk and Molly Schaffnit, GASP, WV SORO, Ohio Valley Environmental Coalition, WV Sierra Club, Wetzel County Action Group, WV-CAG

DAQ Response

All minor source permits issued under 45CSR13, with the exception of Temporary Permits, do not expire. Section 10 of 45CSR13 sets forth the requirements for permit transfer, suspension, revocation, and responsibility.

DAQ Action

No action taken.

SECTION 3

COMMENT #28:

Section 3.1.1.b - For the purpose of consistency, *natural gas compressor station* should be replaced. Commenter Chesapeake recommends replacing with *natural gas production facility*. Commenter WVONGA, IOGA recommends replacing with *natural gas affected facility or emission unit*.

Received by: Chesapeake, WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

This was an error and will be corrected for consistency and clarity.

DAQ Action

DAQ updated §3.1.1 in the final version of the G70-A to replace the reference from a compressor station to an oil and natural gas production facility.

COMMENT #29:

Section 3.1.1 – Marshall, Wetzel and Tyler counties have experienced shale drilling for close to six years. The initial groups of wells were spaced further apart and on more isolated property, than the more recent well pads. The well pad density (wells per square mile) is steady increasing. More wells will need to be sited on pads much closer to occupied buildings as infilling occurs and well fields expand now that gathering pipelines and compressor stations are established. Many of the residents near the ever-expanding gas well operations, have expressed their opinion that the proposed 300 feet limit as suggested in the DRAFT permit is absolutely and unquestionably inadequate to protect residents and citizens from health and safety hazards associated with the placement of emission producing equipment on well pads.

Wetzel County Action Group herein requests that the minimum distance be increased to 1,000 feet. To put this distance in perspective, many of the well pads that we have visited and most of the recent new well applications that we have reviewed have described between 10-15 acres of total disturbed land in order to construct the final required size well pad. It has been our

observation that 1100 ft. X 400 ft. would not be atypical to achieve the final desired pad. It appears that locating the emissions producing equipment at a 1,000 ft. distance at the far end away from an occupied building would be possible and readily achievable.

Well pad and related gas processing operations in Marshall, Wetzel, and Tyler counties near here have experienced explosions and fires, resulting in injuries and multiple fatalities. Only distance from the point of the gas release that fueled those catastrophes can mitigate the potential harm. And the suggested 300 feet is woefully inadequate in those cases.

Various residents in this area have personally smelled and experienced the unique fumes from raw gas and condensate or natural gas liquids. The potential harmful effect of all of these gas releases which have been experienced by multiple residents, from multiple drillers at various well pads would have been greatly increased at a much closer distance. There are generally accepted sub-groups who have higher concerns with regard to diesel fumes, volatile organic carbons, HAPS, ozone and other air-borne pollutants that cause additional problems for those who already have respiratory challenges. The young and the elderly are in these categories.

Public health hazards are the concerns of air quality regulations.

When all else may fail, what we are left with is to require that safety and public health assurances are to be DESIGNED in at the start by REQUIRING AT LEAST 1000FT SETBACK between occupied or potentially occupied (rentable, but currently vacant) buildings from all emissions sources at well pads. Furthermore, the owner of any property near or adjacent to a parcel of property should not have the right to permanently compromise the future health and safety of future tenants or owners of any building adjacent to well pads by allowing any type of distance waiver.

We want to emphasize our support for the 1,000 foot setback distance promoted by GASP. The draft General Permit's 300 feet setback is arbitrary and not based, that we are aware of, on published West Virginia monitoring. We're troubled that the General Permit is being created in advance of the §22-6A-22 air quality study that is to appear this summer.

Received by: George Monk and Molly Schaffnit, Wetzel County Action Group, GASP, WV SORO, Ohio Valley Environmental Coalition, WV Sierra Club, Wetzel County Action Group, WV-CAG

DAQ Response

When the WV Legislature passed the Natural Gas Horizontal Well Control Act (W. Va. Code §22-6A) on December 14, 2011, it included requirements for WV DEP to complete three studies related to environmental impacts associated with horizontal well drilling. All three reports have been completed. All three reports, along with supporting information from the contractor for this project are posted to the WVDEP's Office of Oil and Gas (OOG) website at: <http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/legislativestudies/Pages/default.aspx>.

The three reports are: (1) "Air Quality Impacts Occurring from Horizontal Well Drilling and Related Activities", June 28, 2013 (in response to W. Va. Code §22-6A-22); (2) "Noise, Light, Dust, and Volatile Organic Compounds Generated by the Drilling of Horizontal Wells Related to the Well Location Restriction Regarding Occupied Dwelling Structures", May 28, 2013 (in response to W. Va. Code §22-6A-12(e)); and (3) "Safety of Centralized Large Pits and

Impoundments Used in the Drilling of Horizontal Natural Gas Wells”, March 7, 2013 (in response to W. Va. Code §22-6A-23).

Excerpts from the §22-6A-22 air quality study mentioned in the comment are provided in italics and the location of the excerpt is provided for reference.

Introduction: As directed by the Natural Gas Horizontal Well Control Act (the Act) passed by the West Virginia Legislature on December 14, 2011, the following is in fulfillment of the mandate pursuant to W. Va. Code §22-6A-22 that the West Virginia Department of Environmental Protection’s (DEP) Office of Oil and Gas (OOG) report to the Legislature on the need, if any, for further regulation of air pollution occurring from well sites, including the possible health impacts, the need for air quality inspections during drilling, the need for inspections of compressors, pits and impoundments, and any other potential air quality impacts that could be generated from this type of drilling activity that could harm human health or the environment. This report relies in part upon sampling and data analyses performed by the faculty and students of West Virginia University’s (WVU) School of Public Health via contract under the administration of WVU’s West Virginia Water Research Institute (WRI).

Office of Oil and Gas: The Act enhanced the regulatory requirements for horizontal wells, including adding well location restrictions in W. Va. Code §22-6A-12. West Virginia’s administrative rule, 35 C.S.R. 8, - Rules Governing Horizontal Well Development, becomes effective July 1, 2013 and incorporates requirements of the Act. Appendix A provides a summary of OOG’s location restrictions with respect to horizontal wells under W. Va. Code §22-6A-12 and §22-6-21.

Appendix A: Summary of Office of Oil and Gas location restrictions for horizontal wells under W. Va. Code §22-6A-12¹ and §22-6-21			
Reference Point	Minimum Distance (feet)	End point	Citation
Well pad ²	100	Perennial stream ³	W. Va. Code §22-6A-12(b)
	100	Natural lake ³	W. Va. Code §22-6A-12(b)
	100	Artificial lake ³	W. Va. Code §22-6A-12(b)
	100	Pond ³	W. Va. Code §22-6A-12(b)
	100	Reservoir ³	W. Va. Code §22-6A-12(b)
	100	Wetland ³	W. Va. Code §22-6A-12(b)
	300	Naturally reproducing trout stream ³	W. Va. Code §22-6A-12(b)
	1,000	Surface or ground water public water supply intake ^{3,4}	W. Va. Code §22-6A-12(b)
Well pad	625	Occupied dwelling	W. Va. Code §22-6A-

<i>center</i>		<i>structure</i> ⁵	<i>12(a)</i>
	625	<i>≥ 2,500 ft² used to house or shelter dairy cattle or poultry husbandry</i> ⁵	<i>W. Va. Code §22-6A-12(a)</i>
<i>Well</i>	200	<i>Dwelling</i> ⁶	<i>W. Va. Code §22-6-21</i>
	250	<i>Water well used for human or domestic animal consumption</i> ⁵	<i>W. Va. Code §22-6A-12(a)</i>
	250	<i>Developed spring used for human or domestic animal consumption</i> ⁵	<i>W. Va. Code §22-6A-12(a)</i>
¹ <i>These restrictions do not prevent activities permitted or authorized by the U.S. Army Corps of Engineers</i>			
² <i>Established by the Limit of Disturbance (LOD) of the well pad. The outermost sediment control barrier establishes the LOD around the well pad.</i>			
³ <i>May be waived by the department</i>			
⁴ <i>Distance to end point measured pursuant to W. Va. Code W. Va. Code §22-6A-12(b)(1)-(3)</i>			
⁵ <i>May be waived by the surface owner. A variance may also be granted by the secretary</i>			
⁶ <i>May be nearer upon consent by the dwelling owner</i>			

Conclusions: *Submitted to the Legislature in May 2013, OOG’s noise, light, dust and volatile organic compounds report found that, while there were no indications of a public health emergency or threat based on the air data obtained in the study, potential impacts from various well pad geometries existed. West Virginia Code §22-6A-12 established a number of siting criteria for horizontal wells, including a 625-foot distance from the well pad center to an occupied dwelling. The agency stated:*

While the statutorily-specified location restriction is defined to be from the center of the well pad, there are a wide variety of pad sizes and configurations that may allow an occupied dwelling to be close to a well pad.² Because of the potential for different well pad geometries, DEP recommends that the Legislature reconsider the reference point (i.e., from the center of the well pad) for the location restriction to occupied dwellings to reduce potential exposures. One option to consider would be to establish a location restriction from the Limit of Disturbance (LOD) of the well pad to provide for a more consistent and protective safeguard for residents in affected areas. The outermost sediment control barrier establishes the LOD around the well pad.

Based on a review of completed air studies to date, including the results from the well pad development monitoring conducted in West Virginia’s Brooke, Marion, and Wetzel Counties, no additional legislative rules establishing special requirements need to be promulgated at this time. As evident by the many air studies underway, these initiatives will result in more complete information over time. Once available, this data will help advance and guide future rule development. In the meantime, the existing regulatory framework provides a basis for implementation of requirements to minimize and mitigate human health and environmental impacts.

The siting criteria in §3.1.1 of the G70-A general permit states that:

All persons submitting a Class II General Permit Registration Application to construct, modify or relocate a natural gas well affected facility shall be subject to the following siting criteria:

- a. No person shall construct, locate or relocate any facility, affected facility or emission unit within three hundred (300) feet of any occupied dwelling, business, public building, school, church, community, institutional building or public park. An owner of an occupied dwelling or business may elect to waive the three hundred (300) foot siting criteria.
- b. Any person proposing to construct, modify or relocate a natural gas compressor station within three (300) feet of any occupied dwelling, business, public building, school, church, community, institutional building or public park may elect to obtain an individual permit pursuant to 45CSR13.

This siting criteria is used in all DAQ Class II general permits (G10-D, G-20B, G-30D, G-35-A, G40-C, G-50B, and G60-C) in addition to the G70-A. The first general permit that was developed by DAQ was the General Permit for the Coal Industry. The current version of that general permit is “Class II General Permit G10-D for the Prevention and Control of Air Pollution in regard to the Construction, Modification, Relocation, Administrative Update and Operation of Coal Preparation and Processing Plants and Coal Handling Operations”. The basis for the siting criteria used in the general permits comes from the Surface Coal Mining and Reclamation Act §22-3-22. The reference is:

(d) After the third day of August, one thousand nine hundred seventy-seven, and subject to valid existing rights, no surface-mining operations, except those which existed on that date, shall be permitted: (4) Within three hundred feet from any occupied dwelling, unless waived by the owner thereof, or within three hundred feet of any public building, school, church, community or institutional building, public park, or within one hundred feet of a cemetery;

The siting criteria in §3.1.1 of the G70-A general permit is in addition to location restrictions established in W. Va. Code §22-6A-12 and §22-6-21 that are administered by DEP’s Office of Oil and Gas.

Based on the information available to DAQ, there is no indication of a public health emergency or threat based on the air monitoring results discussed in the “Noise, Light, Dust and Volatile Organic Compounds Generated by the Drilling of Horizontal Wells Related to the Well Location Restriction Regarding Occupied Dwelling Structures”. DAQ does not believe that there is a basis to change the siting criteria in §3.1.1 of the G70-A general permit and used in other general permits that have been developed by DAQ. DAQ further believes that it is important to have consistent siting criteria across all general permits, unless there is evidence to the contrary.

DAQ Action

No action taken.

COMMENT #30:

Section 3.3- The Monitoring Requirements of Section 3.3 reference Section 4.2., which is reserved.

Received by: Chesapeake, CONSOL, WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

This was an error and will be corrected.

DAQ Action

DAQ has revised § 3.3 in the final version of the general permit G70-A to reference § 4.4 instead of § 4.2.

SECTION 4

COMMENT #31:

Section 4.1.2 “Limitations and Standards”; the requirement to emit or have the potential to emit HAPS below the major source threshold is unnecessary. The G70-A applicability is designed to exclude major sources of HAPs. In the alternative, if this term is necessary, then the permit should include monitoring, recordkeeping, and reporting sufficient to demonstrate compliance.

Received by: SAIC Energy

DAQ Response

Section 4.4.4 provides the recordkeeping requirements to demonstrate compliance with section 4.1.2 of the G70-A general permit.

DAQ Action

No action taken.

SECTION 5

COMMENT #32:

The heading of Section 5.0 states “Source-Specific Requirements [Natural Gas Well Affected Facility (NSPS, Subpart OOOO)], “implying that this section simply incorporates the relevant provisions of the federal regulations found in NSPS, Subpart OOOO. While Section 5.0 incorporates NSPS, Subpart OOOO, it also incorporates opacity-related requirements from 45CSR6. We believe that this is inappropriate, as including state opacity regulations in a section purporting to incorporate federal regulations is both misleading and confusing. To the extent that DAQ believes it is necessary to incorporate opacity requirements, a separate section should be created to do so.

The listing of specific state rules gives the appearance that industry is required to obtain a permit prior to performing completion/flowback activities and it has been confirmed by the DAQ that this is not the case.

Requiring extensive opacity and particulate matter limitations, monitoring requirements (§ 5.2.2), testing requirements (§ 5.3), and recordkeeping requirements (§ 5.4.2) for the combustion of natural gas is unnecessary. Combustion of natural gas does not generally generate opacity issues. To the extent that DAQ remains concerned with opacity issues from these combustion devices, a general duty to minimize such emissions and report such events would suffice.

Received by: Chesapeake, CONSOL, WVONGA, IOGA
Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

DAQ agrees to update the heading of Section 5.0 to prevent confusion.

DAQ acknowledges that the combustion of natural gas does not generally generate opacity issues when they are designed and operated properly; however, the requirements from 45CSR6 are applicable and will remain in the final G70-A general permit. For clarification, removal of the 45CSR6 requirements would not change the owner/operators obligation to comply with the requirements of this rule. DAQ agrees to streamline the natural gas opacity monitoring, testing, recordkeeping, and reporting requirements.

Please also refer to DAQ's response to comments #15, #33 and #34.

DAQ Action

DAQ revised the heading of Section 5.0 in the final version of the G70-A general permit and removed "NSPS, Subpart OOOO" from the title. DAQ added a note for clarification that this section includes NSPS, Subpart OOOO requirements. DAQ deleted sections 5.2.2, 5.3.1, and 5.4.2 and revised the reporting requirements in section 5.5.3 in the final version of the G70-A general permit.

COMMENT #33:

The Associations request clarification that owners and operators are not required to obtain a General Permit prior to performing well completions in compliance with the requirements of NSPS Subpart OOOO, consistent with DAQ's practice regarding well completions to date. The inclusion of NSPS Subpart OOOO's requirements relating to well completions in Section 5.0 of the Draft General Permit create confusion regarding whether a Permit is necessary prior to conducting these activities.

Received by: WVONGA, IOGA
Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

Owners and operators of natural gas well affected facilities (as defined in §60.5365) are subject to NSPS, Subpart OOOO if the owner or operator commences construction, modification, or reconstruction after August 23, 2011. A gas well facility initially constructed after August 23, 2011, is considered an affected facility regardless of this provision for hydraulically refractured wells (§60.5365 (h)(4)).

The need for requiring permits is evaluated independently and in accordance with 45CSR13. 45CSR16 establishes and adopts standards of performance for new stationary sources promulgated by the U.S. EPA pursuant to section 111(b) of the CAA. 45CSR16 codifies general procedures and criteria to implement the standards of performance for new stationary sources set forth in 40 CFR Part 60. The Secretary has adopted these standards by reference. The Secretary also has adopted associated reference methods, performance specifications and other test methods which are appended to these standards. Permitting requirements are not mandated by the NSPS, Subpart OOOO requirements.

As a result of the numerous comments and questions received in regards to section 5.0, DAQ did reconsider whether section 5.0 should be removed from the final version of the G70-A general permit. DAQ during the reconsideration, decided to keep section 5.0 in the G70-A general permit because the requirements are applicable. There is a difference between what triggers a permit or what triggers a permit to be modified and what is an applicable requirement. Applicable requirements must be included in the general permit.

DAQ has consistently provided guidance that air construction permits are not required in advance of well completions, except in possible cases of extended flaring that could trigger the need for a permit. The well completion activities on their own typically do not trigger the amount of emissions that would require a permit under 45CSR13 because they typically would not meet the definition of a “stationary source” per 45 CSR13 §2.24. At such time the production facility potential emissions are evaluated with all of the planned emission units for the facility is typically when the PTE emissions would trigger the need for a permit.

DAQ also has provided instructions for the well completion notifications. With the exception of annual reporting requirements, the NSPS Subpart OOOO requirements for many of the natural gas well affected facilities occur prior to the owner/operator obtaining the G70-A general permit.

For clarification, removing the NSPS, Subpart OOOO requirements would not change the owner/operators obligation to comply with these regulations. If there is a violation of these requirements, it would be DAQ Enforcement’s discretion on whether the violation would be an NSPS violation or a permit violation if the condition(s) were not met.

DAQ Action

No action taken.

COMMENT # 34:

Section 5.1.3.a.4 – As drafted, this is a requirement in the General Permit but is listed as an alternative compliance demonstration method in NSPS, Subpart OOOO. We request that the General Permit be revised to include this as an alternative compliance demonstration method consistent with NSPS Subpart OOOO, and not a separate stand-alone requirement.

Received by: WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

DAQ will revise section 5.0 based on the final amendments of NSPS, Subpart OOOO that were signed on August 2, 2013 and issued in the Federal Register September 23, 2013.

DAQ Action

Section 5.0 in the final version of G70-A has been revised to reflect the final amendments of NSPS, Subpart OOOO that were signed on August 2, 2013 and issued in the Federal Register September 23, 2013.

COMMENT #35:

Section 5.1.5 – The phrase “unless a more stringent state or local emission control requirement is applicable” should be deleted. Additionally, PM limits for flares are inappropriate because the control device will have minimal PM emissions on an hourly basis due to the combustion of natural gas and due to the fact that well completions generally will only last a few days.

Received by: CONSOL, WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

The phrase “unless a more stringent state or local emission control requirement is applicable” in section 5.1.1 will be deleted. Please see comment # 32 regarding the applicability of 45CSR6 requirements.

DAQ Action

The final version of G70-A general permit has been revised to remove the phrase “unless a more stringent state or local emission control requirement is applicable” from section 5.1.1.

COMMENT #36:

Section 5.2 – Method 9 testing for temporary completion flaring activities is not practical. The duration of these activities is not such that time will not allow for the scheduling and performing of a full-blown visible emissions test per Method 9.

Received by: Chesapeake, WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

Please refer to DAQ response to comment #32.

DAQ Action

Please refer to DAQ action in regards to comment #32.

COMMENT #37:

Section 5.3 –Although the Associations appreciate that the PM testing requirements are at the discretion of the Secretary, it is still unnecessary and not appropriate for flares during well completions. The duration of these activities in such that time will not allow for the scheduling and performing of a full-blown visible emissions test per Method 9. This requirement could also necessitate the installation of sample port on the flare and stack testing on a flare is a safety hazard.

Received by: Chesapeake, CONSOL, WVONGA, IOGA
Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

Please refer to DAQ response to comment #32.

DAQ Action

Please refer to DAQ action regarding comment #32.

SECTION 6

COMMENT #38:

This section is unnecessary and could be incorporated, with some revisions into Section 12.0, or removed entirely from the permit. If this section remains intact, we request clarification on the scope and applicability for storage tanks as it is unclear which tanks are subject to the provisions of this section and what criteria are used to determine their applicability. It appears to apply to all storage tanks regardless of the installation date and whether the tanks are subject to NSPS Subpart OOOO or not.

CONSOL feels further clarification within Section 6.0 is needed, as there are no requirements listed about having to quantify emissions. Monitoring and reporting requirements appear burdensome. CONSOL also believes the requirement to conduct parametric monitoring for produced water tanks is also unduly burdensome and additional clarification from DAQ is needed.

Received by: Chesapeake, CONSOL, WVONGA, IOGA
Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

This section contains the overall requirements for all storage tanks that will be located at the site. The applicability of this section is not limited to only those storage tanks that are defined as an affected storage vessel facility under NSPS, Subpart OOOO. If the storage tank(s) is(are) subject to NSPS, Subpart OOOO control requirements then the requirements in Section 12 will also apply. This approach is consistent with how the engines are handled with the overall requirements contained in one section and any additional requirements from federal requirements included in other sections.

As stated elsewhere in this response to comment document, the need for a permit is determined in accordance with 45CSR13 and not NSPS, Subpart OOOO. Section 5.1 of 45CSR13 provides the requirement for obtaining a permit. The definition of a “stationary source” in 45CSR13-2.24 excludes any emissions unit which is identified as a *de minimis* source in Table 45-13B.

If a storage tank was “grandfathered” for the purposes of 45CSR13, then the storage vessel is not subject to this section. The original effective date of 45CSR13 was June 1, 1974. A storage vessel is considered “grandfathered” if it was installed prior to June 1, 1974.

If a facility is/was required to have a permit in accordance with 45CSR13, then the storage tank(s) section applies unless it was “grandfathered” or is a *de minimis* source in Table 45-13B.

DAQ adheres to its “policy for permitting low-emitting sources” to alleviate burdensome and unneeded requirements relating to the permitting of emission limits from certain low emitting sources. The policy states: tanks of less than 20,000 gallons should not as a general rule have permitted emission limits; all tanks should be listed in the equipment table; and tanks of 10,000 gallons or more may include a maximum throughput depending on the situation.

Every storage tank will be listed in the emissions unit table section of the general permit registration. In the case of the G70-A Permit Registrations, DAQ has decided that every G70-A permit registration will include emission limits and corresponding throughput limits for condensate storage tanks because of the NSPS, Subpart OOOO VOC emission threshold.

All G70-A registration applicants are required to submit emissions data and emission calculations in their registration application for all emission units. DAQ does not typically expect that emission limits and throughput limits will be listed in the general permit registration for storage tanks that are used to store produced water, freeze protection fluid tanks, fuel tanks, etc.; however, the permit engineer does have the discretion to include them in the registration based on potential emissions and other information provided in the registration application.

Please refer to DAQ response to comment #42 regarding the monitoring and recordkeeping requirements.

DAQ Action

No action taken.

COMMENT #39:

Section 6.1.6.i and 6.2.1.i – Chesapeake strongly recommends including an alternate compliance scenario that will allow for a representative reservoir sample to be used in lieu of a site-specific pressurized liquids sampling. Accurate and acceptable flashing emissions quantification can be achieved with approved process simulation software when using a representative reservoir sample in conjunction with site-specific operating parameters. Requirements/parameters for determining whether the reservoir sample is representative, such as API gravity, can be incorporated into this section. Chesapeake recommends a similar approach as taken by TCEQ that recognizes a reservoir sample as “representative” if the API gravity is within three (3) degrees of that determined for the liquids at the facility. This change will add flexibility to the requirement without sacrificing accuracy.

Chesapeake encourages the DAQ to modify the language to allow samples to be taken from the last pressure vessel with the appropriate sampling access and instrumentation. We typically utilize a Low Pressure Tower as the last separator prior to the storage tanks and these vessels are not equipped to handle sample extraction, nor do they have the necessary temperature and pressure instrumentation needed for proper analysis of the sample.

In addition, Chesapeake believes requiring sampling of any kind for produced water tanks not storing a true second phase oil stream is inappropriate and unduly burdensome.

Received by: Chesapeake

DAQ Response

The approach taken by TCEQ is documented in the TX Air Permit Reference Guide APDG 5942 titled “Calculating Volatile Organic Compounds (VOC) Flash Emissions from Crude Oil and Condensate Tanks at Oil and Gas Production Sites” that was issued by the Air Permits Division, Texas Commission on Environmental Quality (TCEQ) and was last revised in May 2012. This document provides comments and information for multiple methods of calculating flash emissions (as well as working and breathing loss emissions). Several excerpts from this document are listed in italics below:

Comment from Table 1: Method #2, Flash Loss Estimation Methods for the process simulator computer programs:

*There are several different process simulators (e.g. WinSim, Designer II, HYSIM, HYSIS, VMG, and PROMAX, etc). The software is expensive, but the results are accurate when based on site-specific **sample and analysis**.*

The bold font that appears in the above TCEQ reference has not been added by WV DAQ in this response to comments document.

The TCEQ always prefers that the most accurate emission estimates be submitted, based on site-specific, representative worst-case data when available. Therefore we would prefer, but do not require, that methods 1-4 be used rather than other available methods. If the applicants choose to use a less accurate method, they should be aware of the risk of potentially underestimating emissions at a site.....If at an existing production site, the emission calculations should be determined from site-specific sampling or analysis. If a site is not yet in operation, information from sister-sites, nearby sites on the same field, or other empirical data may be used with a justification as to why that information is appropriate.

The TCEQ always recommends that once site specific information is available that the permitted emissions be re-evaluated if other generic information, defaults or a database were used in calculating the emissions initially. If you find that the emissions are greater than what was originally represented in a Certified Permit by Rule (PBR) or Standard Permit, you must revise your emissions to reflect the increase.

As shown in the excerpts from this document, TCEQ strongly encourages the use of site-specific sampling and analysis. DAQ agrees with the referenced sections from TCEQ that support a site-specific sample providing the most accurate emission estimates and with the recommendation that once site specific information is available that the permitted emissions be re-evaluated.

Requirement 6.1.6 does not apply to every storage vessel. The scope of 6.1.6 is limited to: storage tanks that have emission limits in their general permit registration AND do not have a control device to control the emissions AND are not using an emission reduction system (such as a vapory recovery system or a low pressure tower). Based on the information in the received comment that a low pressure tower is typically utilized, this requirement would not typically apply to the commenter.

Regarding the comment concerning the sampling of produced water tanks, produced water tanks typically will not have an emission limit in the general permit registrations and therefore, the

sampling requirement would typically not apply. Produced water tanks do have VOC emissions and depending on the situation, it may be appropriate to have emission limits for them in the registration. Please refer to DAQ's response to comment #38 for additional background regarding produced water tanks.

DAQ acknowledges that requirement 6.1.6(i) is more prescriptive than it should be for a general permit and agrees to modify the language to allow for more flexibility. DAQ also acknowledges that there are multiple methods and models used to calculate VOC flash emissions and the different methodologies correspond to different samples types and sample locations.

The numbering of 6.1.6.i has changed in the final version of the G70-A general permit as a result to action taken in response to comment #40. DAQ action below will reference the revised numbering.

Regarding section 6.2.1.i referenced in this comment, please refer to DAQ response to comment #42.

DAQ Action

DAQ has revised the site-specific sample requirement in the final version of G70-A general permit (6.1.6.2(ii)).

COMMENT#40:

Section 6.1.6 – The intent of this section is unclear. The commenters believe that this requirement is duplicative and unnecessary. Further, we believe that companies should be allowed to use a representative sample if one exists rather than having to undertake site-specific sampling. Finally, we believe that it is unnecessary to perform additional sampling with each well that is brought on-line as any variation in analyses would have a minimal impact.

Received by: Chesapeake, CONSOL, WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

DAQ does not believe that this requirement is duplicative. DAQ does not believe that the requirement is unnecessary.

The intention of this section is to have a mechanism for registrants to demonstrate to DAQ that they are not exceeding the NSPS, Subpart OOOO thresholds nor the emission limits in their registration based on the actual conditions at their facility. DAQ believes that it is reasonable for registrants to demonstrate compliance to DAQ based on a site specific sample. This section does not apply to registrants that have installed pollution control devices to reduce their VOC emissions prior to being released to the environment. This section also does not apply to registrants that have designed upstream systems that will reduce their VOC emissions prior to being released to the environment.

The emission calculations that were included in the registration application were most likely based on a representative sample from a different facility. If a representative sample were to be

allowed in this section as is requested in the comment, it then would be a duplicative requirement with the emissions determination requirement of 6.1.4 as the commenter suggests.

DAQ did not intend for requirement 6.1.6.iii to be in the draft G70-A; it was intended this requirement to be removed following an internal review.

DAQ will revise requirement 6.1.6 to clarify the intentions and requirements of this section and to delete (iii).

DAQ Action

Requirement 6.1.6 was clarified in the final version of G70-A. Requirement 6.1.6.iii was deleted in the final version of G70-A general permit. The recordkeeping requirement associated with 6.1.6 (6.4.4) was also clarified. Notification requirement 6.5.3 was added.

COMMENT # 41:

Section 6.4 – Chesapeake request the DAQ clarifies the purpose of the recordkeeping requirements. This seems overly burdensome from a continued compliance demonstration standpoint as it is well documented that liquids production declines dramatically over time and would only be necessary should a well be recompleted or new wells brought on-line. Furthermore, we ask for clarification on which types of tanks are subject to this requirement. It seems unreasonable to perform this type of monitoring/recordkeeping on tanks that only store produced water.

Received by: Chesapeake

DAQ Response

Please refer to DAQ's response to comments #38 and #42.

DAQ Action

No action taken.

COMMENT # 42:

Sections 6.2 and 6.4 - The Associations are concerned that there is a disconnect within Section 6.0 of the General Permit, as there are no requirements listed about having to quantify emissions. To further complicate matters, some of our members have a low pressure tower as the last separation vessel before the tanks. This piece of equipment usually is not designed with extensive instrumentation capability. These sections require monthly monitoring and recordkeeping to demonstrate that the parameters used to determine the potential to emit and do the initial emissions model are consistent with the permit registration. This is overly burdensome, particularly because the emissions of tanks at well sites will decrease over time, not increase, as USEPA recognized in its proposed amendments to NSPS, Subpart OOOO. The Associations also object to the requirement to conduct parametric monitoring for produced water tanks. This is unnecessary and unduly burdensome, as the uncontrolled emissions from produced water tanks and the loading of produced water into tank trucks typically are small even at high throughputs. Finally, the Associations seek clarification as to why DAQ wants this to be done and what the companies are supposed to do with the information once it is obtained. Further, this section is more stringent than NSPS, Subpart OOOO.

Received by: CONSOL, WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

Site specific temperature and pressure data from monitoring are needed to accurately calculate flash emissions from storage tanks that are subject to an emission limit in their G70-A general permit registration. Although DAQ believes that monthly monitoring is a good practice to capture fluctuations in the operating conditions, DAQ has agreed to change the minimum monitoring frequency from monthly to quarterly to reduce the monitoring burden.

As a result of the comment, DAQ will also revise the monitoring location to be less prescriptive and will clarify the scope of the requirements. For additional background concerning DAQ's response concerning produced water tanks, please refer to DAQ's response to comment #38.

Storage tank emissions are quantified to demonstrate compliance with the facility wide emission records required by section 4.4.4 of the general permit; however as a result of multiple comments that there was no requirement to quantify the storage tank emissions directly in section 6.4, DAQ agrees to add a recordkeeping requirement for storage tanks that have emission limits in their registrations.

DAQ Action

Requirement 6.2.1 has been revised in the final version of the G70-A. Requirement 6.4.2 has been inserted into the record keeping sections and the remaining requirements have been renumbered accordingly.

SECTION 7

COMMENT #43:

In section 7.0, please include requirements for NSPS, Subpart Dc as appropriate.

Received by: SAIC Energy

DAQ Response

Fuel burning units are included as emission sources in the G70-A general permit; however, it is not the intention of the DAQ to include steam generating units (> 10 MMBtu/hr) as emission sources in the G70-A general permit that would be subject to NSPS, Subpart Dc. As stated in the applicability section 2.3.1, any facility which will require an individual air quality permit review process and/or individual permit provisions to address the emission of a regulated pollutant or to incorporate regulatory requirement(s) other than those established by general permit G70-A are not eligible for the general permit.

The applications for natural gas production facilities that DAQ has received thus far have not included units greater than 10 MMBtu/hr that would meet the definition of a steam generating unit per § 60.41c. DAQ does not think that it is appropriate to add NSPS, Subpart Dc requirements to the G70-A general permit and will instead clarify that any facility that would have a steam generating unit (as defined in § 60.41c) will be excluded from applicability.

DAQ Action

DAQ added an exception for applicability in Section 2.3.1 in the final version of the G70-A general permit for steam generating units (as defined in 60.41c) subject to NSPS, Subpart Dc.

COMMENT #44:

In section 7.1.3, hourly and annual limits on fuel consumption are established, but no monitoring, recordkeeping, or reporting requirements are established to support the hourly limit. Monthly records are inappropriate to demonstrate compliance with an hourly limit. If records of fuel consumption are required to be maintained on a monthly and annual basis, then only monthly and annual limitations should be established.

It is unnecessary and overly burdensome to establish daily, hourly, or annual limitations which serve no useful purpose. Failing that, please provide a clear, reasoned explanation of the purpose of this monitoring and its necessity to the regulatory scheme in light of the additional compliance costs to permittees.

Received by: SAIC Energy

DAQ Response

Section 7.4.1 provides the recordkeeping requirements to demonstrate compliance with the emission limitation established in section 7.1.2 and states that records are required for both natural gas consumption and operating hours. The hourly and annual emissions can be calculated from the required natural gas consumption and the records of the operating hours maintained on a monthly and yearly basis. The natural gas consumption and operating hours are practical means of demonstrating compliance with the emission limits because they are parameters included in the emissions calculation.

DAQ Action

No action taken.

COMMENT #45:

Section 7.3.1. – It is our understanding that performing the testing referenced in this section is strictly at the Secretary’s discretion, but the language seems to suggest the testing is mandatory. Chesapeake recommends clarifying that the testing requirements will only be necessary should the Secretary make a specific request. Furthermore, it may not be possible to install a continuous opacity monitoring system (COMS) on units of this size. It is unlikely that the stacks on these units would be able to support a COMS unit.

Received by: Chesapeake, CONSOL, WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

The understanding that the testing referenced in this section is at the Secretary’s discretion is correct. DAQ agrees to clarify that the testing requirements will only be necessary should the Secretary make a specific request. The testing requirement states “determined in accordance with Method 9 or by using measurements from COMS approved by the Director”. It does not require COMS.

DAQ Action

The final version of G70-A general permit has been revised to include the introduction phrase “Upon request by the Director,” to requirement §7.3.1.

COMMENT #46:

Section 7.5.1. – This section mentions Method 22 visible emissions checks, but this method is not mentioned anywhere else in Section 7.0. For the sake of consistency, Chesapeake recommends removing this reference or including it in the other appropriate parts of Section 7.0.

Received by: Chesapeake

DAQ Response

DAQ agrees to remove the reference to Method 22 as requested.

DAQ Action

DAQ removed the “or 22” reference from §7.5.1 in the final version of the G70-A general permit.

SECTION 10

COMMENT #47:

In section 10.1.2, the same types of fuel consumption limitations are included here as identified in comments in section 7.1.3 with similar concerns.

Received by: SAIC Energy

DAQ Response

Please refer to DAQ’s response to comment # 44.

DAQ Action

Please refer to DAQ’s action in regards to comment #44.

COMMENT #48:

Section 10.2.1.a.2. – Please change the language to allow for the use of a site-specific maintenance plan. Many operators will develop a plan that may not track exactly with what the catalyst manufacture plan indicates, but it is more effective based on site-specific conditions and many times is more stringent than what is suggested by the manufacturer. Chesapeake suggests the following language: *2. Following the catalyst manufacturer operating and maintenance recommendations, or develop and implement a site-specific maintenance plan.*

The Associations suggest changing the wording from “*follow operating and maintenance recommendations of the catalyst element manufacturer*” to “*follow catalyst manufacturer’s emissions related recommendations or develop and use a site specific maintenance plan*”. Further, in order to avoid confusion, the requirement outlined in 45 CSR 13 §2.19.a concerning catalyst replacement also should be included.

Received by: Chesapeake, WVONGA, IOGA
Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

DAQ agrees with the suggestion to allow for the option of a site specific maintenance plan. DAQ also agrees to include language from 45CSR13-2.19.a.

DAQ Action

The final version of G70-A general permit includes the following revisions: (1) added requirement 10.1.5 for the catalytic converter language from 45CSR13-2.19.a; (2) requirements 10.2.1.a.2 and 10.1.3 allow for the use of a site specific maintenance plan; (3) DAQ added 10.4.4 to require the site-specific maintenance plan to be available and available to the Director or duly authorized representative upon request, if used; and (4) added 10.4.3 to address recordkeeping requirements (hours of operation and time from last catalyst replacement) to demonstrate compliance with 45CSR13-2.19.a.

SECTION 11

COMMENT #49:

Section 11.1.2. – Chesapeake believes that limits and/or recordkeeping requirements for produced water tanks are overly burdensome and provide no measureable benefit to air quality. For these reasons, we recommend that produced water tanks be removed from the applicability of this, or any other similar, section of the permit.

The Associations object to the requirement to conduct parametric monitoring for produced water at tank truck loading facilities as set forth in this section. As noted in the comments regarding section 6.0, this is unnecessary, unduly burdensome, and provides little to no environmental benefit, as the uncontrolled emissions from produced water tanks and the loading of produced water into tank trucks typically are small even at high throughputs.

Received by: Chesapeake, CONSOL, WVONGA, IOGA
Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

Please refer to DAQ response to comments #38 - #42 for additional background regarding produced water storage tanks and emissions. All emission units must have the regulated emissions quantified in their G70-A registration applications and must be included in the facility-wide emissions to determine minor/major source status.

The intention of requirement 11.1.2 is to demonstrate compliance with tank truck loading emissions for limits that are in the general permit registration, as stated in requirement 11.1.1. The intention was not to require tank truck loading records of transfers if they are not needed to demonstrate compliance with emission limits recorded in the general permit registration.

DAQ Action

Requirements 11.1.2 and 11.4.1 will be revised in the final version of the G70-A general permit to match up with the wording in requirement 11.1.1.

SECTION 12

COMMENT #50:

Section 12.1.3.a.1. – Vapor combustor needs to be added to the list of acceptable control devices.

Received by: Chesapeake

DAQ Response

Section 12.1.3 will be revised in accordance with the September 23, 2013 amendments to NSPS, Subpart OOOO.

DAQ Action

DAQ revised 12.1.3 in response to comment #14.

COMMENT #51:

Section 12.1.6 – As stated in the comment on Section 5.0, including state opacity and particulate matter emissions in Section 12.0, which purports to incorporate only NSPS, Subpart OOOO requirements is inappropriate. Similarly, as stated in the comment on Section 5.1.5, it is unnecessary to include particulate matter limits for natural gas combustors or flares – especially when such requirements relate to “particles of unburned or partially burned refuse or ash from an incinerator”.

Received by: WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

DAQ agrees that Section 12.0 may not be the appropriate section for the 45CSR6 state requirements and agrees to move them to the overall storage tank requirements that are located in Section 6.0. Section 12.0 therefore will include only the NSPS, Subpart OOOO requirements.

Flares and combustors are subject to 45CSR6. The definition of “incinerator” means any device used to accomplish incineration [45CSR6-2.8]. “Incineration” means the destruction of combustible refuse by burning in a furnace designed for that purpose. For the purpose of this rule, the destruction of any combustible liquid or gaseous material by burning in a flare or flare stack, thermal oxidizer or thermal catalytic oxidizer stack shall be considered incineration [45CSR6-2.7]. “Flare” means and includes a combustion source normally comprised of, but not limited to, a length of stack or pipe which has an attached burner mechanism designed to destroy liquid or gaseous material with an open or semi-enclosed flame [45CSR6-2.6]. The language in §12.1.6 is taken directly from 45CSR6.

Please refer to DAQ’s response to comment #32 regarding the requirements of 45CSR6 in Section 5.1.5. DAQ’s actions below are consistent with the actions taken in response to comment #32.

DAQ Action

The 45CSR6 requirements from section 12.1.6 were moved to 6.1.6.2(ii) in the final version of the G70-A. Requirements 12.2.4, 12.3.2, and 12.4.8 were deleted in the final version of the G70-A. Requirement 12.5.3 was moved to 6.5.4 and was revised, consistent with DAQ's action taken in response to comment #32.

COMMENT #52:

Section 12.2.1.2.vii.D.4. – Chesapeake disagrees that replacing fuel nozzles and burner tubes upon the first failure is appropriate without first evaluating the system and considering all possible causes. If those components were not the cause of the visible emissions exceedance, then replacing them is not the proper corrective measure. From such evaluation, proper corrective measures can be implemented, which may not require the replacement of fuel nozzles and burner tubes.

Received by: Chesapeake, WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

Section 12.1.3 will be revised in accordance with the September 23, 2013 amendments to NSPS, Subpart OOOO. Please refer to comment #14 related to Section 12.0 for additional detail.

DAQ Action

Please refer to DAQ action from comment #14 related to Section 12.0.

COMMENT #53:

Section 12.2.2. – Chesapeake would like to recommend adding a provision to this section that would exempt facilities from the inspection/monitoring requirements should an unsafe condition exist.

Received by: Chesapeake

DAQ Response

EPA addressed this issue in their amendment to NSPS, Subpart OOOO that was issued on September 23, 2013. As noted in DAQ's response to comment #14, these amendments are included in the final version of G70-A.

DAQ Action

Please refer to DAQ action from comment #14 related to Section 12.2. DAQ revised 14.2.2 in the final version of G70-A to include provisions for unsafe conditions.

COMMENT #54:

Section 12.2.3.d.1.viii.A. – Chesapeake believes installing flow meters on the controls devices as described in this section will be overly expensive, inaccurate and unnecessary. The most likely meter for this application would be a thermal mass flow meter. These meters can run as high as \$10,000, not including installation and options. These meters are calibrated for a standard temperature and pressure. As ambient conditions drift outside of the calibrated range, accuracy

will be compromised. As much as an 8% error could be observed between a temperature of 32 degrees and 70 degrees. Condensation from water vapor in the gas can create additional accuracy issues with these meters as well. It will form in the meter and cause the temperature reading to be lower than it actually is creating errors in the mass flow calculation. Ultrasonic meters are another possible option, but are completely cost prohibitive. Most combustor units have an automatic shutdown when the temperature exceeds the combustor rating and this will then trigger an emergency shutdown of the entire facility.

Received by: Chesapeake

DAQ Response

Section 12.1.3 will be revised in accordance with the September 23, 2013 amendments to NSPS, Subpart OOOO. Please refer to comment #14 related to Section 12.0 for additional detail.

DAQ Action

Please refer to DAQ action from comment #14 related to Section 12.0.

COMMENT #55:

Section 12.3.1.d. These requirements do not apply to the owner or the operator of the source and should be removed as inapplicable.

Received by: SAIC Energy

DAQ Response

This section was revised in response to comment #14 in accordance with NSPS, Subpart OOOO amendments issued September 23, 2013. The manufacturer's performance test requirements specified in § 60.5413(d)(2) through (10) will be removed from the final version of the G70-A as they are inapplicable to owner/operators.

DAQ Action

§ 60.5413 (d)(2)-(10) requirements of 12.3.1 are "reserved" in the final version of G70-A.

COMMENT #56:

Section 12.3.2. – We feel that the term *incinerator* is inappropriate and should be replaced with the term *enclosed combustion device* in this section, and throughout the permit.

Received by: Chesapeake, CONSOL, WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

The term "incinerator" is technically correct within the requirements of 45CSR6.

Flares and combustors are subject to 45CSR6. The definition of "incinerator" means any device used to accomplish incineration [45CSR6-2.8]. "Incineration" means the destruction of combustible refuse by burning in a furnace designed for that purpose. For the purpose of this rule, the destruction of any combustible liquid or gaseous material by burning in a flare or flare stack, thermal oxidizer or thermal catalytic oxidizer stack shall be considered incineration

[45CSR6-2.7]. “Flare” means and includes a combustion source normally comprised of, but not limited to, a length of stack or pipe which has an attached burner mechanism designed to destroy liquid or gaseous material with an open or semi-enclosed flame [45CSR6-2.6]. The language in §14.3.5 is taken directly from 45CSR6 and as such, will not be changed.

DAQ Action

Please refer to DAQ action in response to comment #51.

COMMENT #57:

Section 12.3.2 “VRU’s” should not be identified as a control device.

Received by: CONSOL, WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

There is no mention of “VRU’s” in section 12.3.2. Section 12.3.2 of the draft general permit was a testing requirement for 45CSR6 as noted in comment #56 above. Section 12 has been updated as a result of EPA’s amendments to NSPS, Subpart OOOO that were issued on September 23, 2013 and addressed in comment #14. DAQ responded to comments concerning VRU’s regarding section 14.

DAQ Action

No action taken.

SECTION 14

COMMENT #58:

Our members have noted several incorrect citation references to other sections of the Draft General Permit throughout this particular section. For this reason, we would ask that DAQ please review the references in this section carefully and correct any errors or inconsistent cross-references prior to its issuance of the final Permit.

Received by: WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

DAQ reviewed the references in this section at the request of the commenter and did find a few incorrect citation references to other sections of the G-70 general permit.

DAQ Action

The inconsistencies that were found were corrected in the final version of G-70A.

COMMENT #59:

Section 14.1.2.3.iv. – If an enclosed combustion device used for tank controls malfunctions creating an emergency shutdown of the facility, the working and flashing emissions will cease, but breathing losses will continue be vented.

Received by: Chesapeake

DAQ Response

DAQ understands the comment. If the scenario described in the comment were to occur, the registrant would follow the reporting requirement §14.5.4.

DAQ Action

No action taken.

COMMENT #60:

Section 14.1.5. - We strongly recommend removing Low Pressure Towers (LPT) from the control device section. LPT's should not be considered a piece of control equipment as they are part of a process and not designed to directly control/reduce emissions. There is no precedent for this and they are only designed to separate liquids from the gas and reduce the pressure of the liquids before final deposition into the storage vessels, and therefore should not be treated as a control device and this section should be deleted from the Draft General Permit in its entirety. Furthermore, this equipment does not meet the definition of air pollution control device listed in the instruction forms.

Received by: Chesapeake, CONSOL, WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

DAQ agrees that the Low Pressure Towers (LPT) do not meet the definition of an air pollution control device and should not be included in the control device section of the G70-A general permit.

DAQ recognizes that although the LPTs may not be designed specifically to directly control or reduce emissions, the LPTs when used in the process do in fact greatly reduce the flash VOC emissions from the downstream storage tanks. DAQ recognizes the multiple benefits of this technology and encourages the use of this technology.

DAQ considers the use of low pressure towers in a process similarly to the use of vapor recovery systems in a process. When potential emissions (PTE) are calculated using the LPT, the PTE that is calculated is considerably lower. When the LPT is used to calculate the potential emissions that are provided in the registration application, it is reasonable that permit conditions exist. If the LPT is not used to calculate the potential emissions provided in the registration application, DAQ agrees that there should not be any permit requirements for the LPT.

DAQ will revise the LPT requirement 14.1.5 (moving to 6.1.7) to notify DAQ when a low pressure tower that was used to calculate the PTE emissions in the registration application is removed from service and will add a corresponding notification requirement. For consistency, DAQ will also remove the reference of the LPT from requirement 7.1.4.

DAQ Action

DAQ has moved the LPT requirement from 14.1.5 to 6.1.7 in the final version of the G70-A and has revised the requirement as discussed in the response. DAQ added notification requirement 6.5.2. DAQ deleted the LPT requirement 7.1.4 I the final version of the G70-A.

COMMENT #61:

Section 14.1.6. – Vapor Recovery Units (VRU's) are not considered control devices and should not be included in this section. In a response letter to the American Petroleum Institute, EPA explicitly stated that it does not consider VRU's to be control devices. These devices do not reduce or capture emissions, they simply reroute storage tank overheads as a part of the process and, therefore, are considered process equipment and do not meet the definition of an air pollution control device as written in the instruction forms of this general permit. Accordingly, VRUs should not be subject to the control device requirements in this section of the Draft General Permit.

Received by: Chesapeake, CONSOL, WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

The reference of EPA's response letter to the American Petroleum Institute (API) concerning their July 25, 2012 letter to the EPA's final rulemaking as stated in the comment is incomplete.

The full EPA response states that EPA does not consider VRUs that route recovered gas and vapor back to the process to be control devices, which is consistent with their treatment under NESHAP subpart HH. The final amended storage vessel standards in subpart HH include an option for conveying emissions through a closed-vent system to a process natural gas line. Although this option was not specifically provided in subpart OOOO, storage vessel affected sources are not prohibited from using this option to meet the 95 percent VOC reduction standard in subpart OOOO. EPA believes that compliance with the NSPS can be demonstrated with this option for a storage vessel equipped with a cover that meets the conditions in §60.5411(b) and connected to a process line through a closed-vent system that meets the conditions in §60.5411(a).

Section 14.0 of the draft G70-A general permit was developed to address EPA's response to the API in regards to "federally enforceable PTE" of VOC emissions. EPA's response was in determining the PTE, the source can take into account emission limits from a legally and practically enforceable state rule, operating permit or other mechanism.

DAQ believes that when VRU's are used, they are used when determining the PTE of the storage tank(s). It is therefore reasonable to have permit conditions associated with the operation of VRU's. Because VRU's are not an end of line pollution control and do not meet the definition of a control device, the VRU permit conditions will be moved from Section 14.0 (Control Devices not subject to NSPS, Subpart OOOO) to Section 6.0 (Storage Tanks) in response to this comment.

The NSPS, Subpart OOOO amendments that were issued on September 23, 2013 include provisions for vapors that are recovered and routed to a process when determining VOC potential emissions. DAQ's intention of requirement 14.1.6 in the draft G70-A is similar to what is

included in EPA's final amendments. To avoid redundancy with the revised emissions determination section in the final version of the G70-A general permit (6.1.4), requirement 14.1.6 will be deleted in the final version of the G70-A general permit; however, the corresponding recordkeeping, and reporting requirements will be moved to the storage vessel section 6.0 in the final version of the G70-A.

DAQ Action

The VRU requirement 14.1.6 was deleted in the final version of G70-A to avoid redundancy as discussed in the response. The VRU recordkeeping requirement 14.4.7 was moved to 6.4.5 in the final version of G70-A and the VRU reporting requirement 14.5.3 was moved to 6.5.2 in the final version of G70-A.

COMMENT #62:

Section 14.1.6.iii. – If an enclosed combustion device is used as a backup for the VRU, the time period while the backup device is in operation should be treated in a manner similar to “planned down-time” and should not be included in the on-line rate (for the purposes of assessing compliance with the minim on-line rate of 95%).

Received by: Chesapeake, WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

This comment is actually in regards to the on-line rate records associated with requirement 14.1.6.iii (14.4.7). DAQ agrees that any time emissions from the VRU system would be routed to an enclosed combustion device with a minimum control efficiency of 95%, that they should not be required to be included in the calculation of the on-line rate. The recordkeeping requirement 14.4.7 was moved to section 6.4.5 in the final version of G70-A in response to comment #61. The DAQ action will therefore reference section 6.4.5.

DAQ Action

Requirement 6.4.5 was revised to further define the on-line rate calculation records.

COMMENT #63:

Section 14.3.5. - We feel that the term *incinerator* is inappropriate and should be replaced with the term *enclosed combustion device* in this section, and throughout the permit.

Received by: Chesapeake, CONSOL, WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

The term “incinerator” is technically correct within the requirements of 45CSR6.

Flares and combustors are subject to 45CSR6. The definition of “incinerator” means any device used to accomplish incineration [45CSR6-2.8]. “Incineration” means the destruction of combustible refuse by burning in a furnace designed for that purpose. For the purpose of this rule, the destruction of any combustible liquid or gaseous material by burning in a flare or flare stack, thermal oxidizer or thermal catalytic oxidizer stack shall be considered incineration

[45CSR6-2.7]. “Flare” means and includes a combustion source normally comprised of, but not limited to, a length of stack or pipe which has an attached burner mechanism designed to destroy liquid or gaseous material with an open or semi-enclosed flame [45CSR6-2.6]. The language in §14.3.5 is taken directly from 45CSR6 and as such, will not be changed.

DAQ Action

No action taken.

COMMENT #64:

Section 14.5.3. – Chesapeake recommends the DAQ require reporting of VRU downtime only if the emissions during the downtime were not controlled by a backup control device, such as an enclosed combustion device. If the on-line rate is less than 95% and no back up is in place, reporting should be required. Otherwise, this should be a non-reportable event.

Received by: Chesapeake, WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

DAQ accepts the recommendation to require reporting of VRU downtime only if the emissions during the downtime were not routed and controlled to a control device.

DAQ Action

Requirement 14.5.3 was moved to 6.5.1 in response to comment #61 and has been revised in the final version of G70-A.

SECTION 15

COMMENT #65:

This section purports to incorporate “only the area source requirements for non-emergency spark ignition engines” ; however, this section is very inclusive of 40CFR63, Subpart ZZZZ, even though many parts of this particular NESHAP are not appropriate for coverage under the G70-A. Chesapeake recommends removing the references to the ZZZZ sections that fall outside the scope of the general permit and only include those that are applicable. It appears that the following sections have inadvertently included sources outside the scope: §15.1.3.3.b, §15.2.1.c.3, §15.2.1.j, §§15.2.3.a and 15.2.3.b, §15.3.2, §15.3.3.b, §15.4.1.a, §15.5.1.a.5, §15.5.1.f, and §15.5.2.b.5.

Received by: Chesapeake, CONSOL, WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

DAQ has reviewed each of the above referenced sections identified in the comments. In the limitations and standards, §15.1.3.3.b all of the subsequent requirements were previously “reserved” and “reserving” the entire section is more appropriate.

When section15.0 was developed, if the monitoring, testing, recordkeeping, or reporting sections included requirements for multiple tables or references some of which were applicable and some

of which were not, DAQ kept the federal requirement in its entirety and only “reserved” those sections where the entire requirement did not apply. In the cases involving cross-referenced sections this was not intentional. DAQ does not object to removing references or “reserving” sections that are included in the comment section with the exception of §15.5.1.a.5 because there were no engine size limitations in the general permit.

DAQ Action

The final version of general permit G70-A includes the following changes: (1) §15.1.3.3.b – reserved; (2) §15.2.1.c.3 - reserved; (3) §15.2.1.j, - removed reference of Table 2c; (4) §§15.2.3.a and 15.2.3.b, - removed references of Tables 1a, 1b, 2a, 2b and 2c; (5) §15.3.2, - reserved; (6) §15.3.3.b, removed references to b1 - b4 and removed b1 – b4; (7) §15.4.1.a, - removed reference to (c); (8) §15.5.1.f, - reserved; and (9) §15.5.2.b.5. – reserved.

COMMENT #66:

We have identified minor typographical issues in the following sections: §15.1.1, 15.2.1.b.3, 15.2.1, 15.3.3, Tables 5, 6, 7, and 8.

Received by: WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

DAQ agrees with this comment except DAQ did not identify an issue in section 15.2.1.b.3.

DAQ Action

DAQ corrected the minor typographical issues that were found in the following sections of the final version of G70-A: §15.1.1, 15.2.1, 15.3.3, Tables 5, 6, 7, and 8.

COMMENT # 67:

Section 15.1.9. The counterpart regulation from Subpart ZZZZ expressly provides that “new or reconstructed stationary RICE located at an area source of HAP emission do not need to comply with any of the requirements of the General Provisions specified in Table 8.” 40 CFR §63.6665. Accordingly, Section 15.1.9 should be revised to include similar clarifying language.

Received by: CONSOL, WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

DAQ reviewed 40 CFR §63.6665 and agrees with the comment.

DAQ Action

DAQ added the requested clarifying language in the final version of G70-A.

SECTION II – Comments regarding the Draft Engineering Evaluation/Fact Sheet

COMMENT #68:

On page 1, the air permit fees required under West Virginia Code of State Regulations (CSR) 45-22 are listed. Application fees for sources subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements are identified in 45-22-3.4.b. This section refers to those sources subject to the requirements of 45-15, which was repealed in 2008 and replaced with 45-34. The rule regarding air pollution fees for facilities subject to NESHAP standards refers only to 45-15 and not to 45-34; therefore no NESHAP fee can attach to this general permit; the referenced CSR rule was repealed.

Even assuming that the rule did include a reference to 45-34 (which consolidated a number of rules, including 45-15), rule 45-15 regulated those sources subject to the original NESHAP program established under 40 CFR 61, not to the current NESHAP standards promulgated under 40 CFR 63. There are no sources subject to the regulations in 40 CFR 61 included in this general permit. Please remove the inapplicable \$2,500 fee from this permit. This comment also applies to the “Regulatory Applicability” section related to fees on page 7 and the “General Permit Application Fee and Time Table” fact sheet. This change will bring the cost of this general permit in line with other general permits offered by DAQ.

Received by: SAIC Energy

DAQ Response

The current version of Rule 22 predates the inclusion and movement of Rule 15 into Rule 34. The clear intent of the 1990 Clean Air Act Amendments was to create “MACT” standards under Part 63 to replace the “inefficient” NESHAPS of Part 61. Congress chose to create a new section (Part 63) instead of including these new regulations for Hazardous Air Pollutants under Part 61. It is commonly understood that NESHAPS now include Parts 61 & 63.

DAQ Action

No action taken.

COMMENT #69:

On page 4, “Estimate of Emissions by Reviewing Engineer,” please explain what is meant by “Sources of fugitive emissions may include...general clean-up emissions.” Clean-up emissions are typically associated with surface coating operations. Please clarify the intent of this statement or remove it from the assessment.

Received by: SAIC Energy

DAQ Response

Clean-up emissions can be associated with any type of operation. In the case of natural gas operations, clean-up is typically referred to as “blow down”.

DAQ Action

DAQ replaced “general clean-up” emissions with “blow down” emissions in the final version of the G70-A engineering evaluation/fact sheet.

COMMENT #70:

In the “Regulatory Applicability” section, 40 CFR 60, Subpart Dc is not discussed. Subpart Dc applies to line heaters, gas production units, and heater/treaters with design heat input rates greater than or equal to 10 MMBtu / hr. All these units are indirectly fired and heat a heat transfer medium; they fall squarely into the definition of “steam generating unit” in 40 CFR 60.41c. Please include DAQ’s determination of the applicability of these requirements to the sources in the DRAFT permit, and include the regulatory requirements for natural gas-fired units as appropriate.

Received by: SAIC Energy

DAQ Response

Based on the applications that DAQ has received, the units have been less than 10 MMBtu/hr and have not subject to NSPS, Subpart Dc and therefore, there was not a discussion on this regulation in the evaluation.

NSPS, Subpart Dc is applicable for each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 100 MMBtu/hr or less, but greater than or equal to 10 MMBtu/hr except as provided in paragraphs (d), (e), (f), and (g) of § 60.40c(a).

“Steam generating unit” as defined in § 60.41c means a device that combusts any fuel and produces steam or heats water or heats any heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

“Process heaters” as defined in § 60.41c means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

DAQ Action

DAQ added a discussion for NSPS, Subpart Dc in the final version of the G70-A engineering evaluation / fact sheet.

COMMENT #71:

On page 8, “Regulatory Applicability” for 40 CFR Part 60, Subpart OOOO for centrifugal and reciprocating compressors, pneumatic controllers, and storage vessels the applicability refers to those affected sources being subject to the requirements of the subpart based on their date of installation. This was done explicitly for reciprocating and centrifugal compressors, and implicitly for pneumatic controllers and storage vessels. To the extent that the NSPS does not apply to existing sources, please include the state requirements for existing sources that are not modified or reconstructed and may be relocated and installed at facilities applying for this permit. This misunderstanding is likely the result of the changes made between the proposed and

final standard and confusion caused by U.S. EPA's attempt to revise its long-standing definition of "construction."

Received by: SAIC Energy

DAQ Response

The section of the regulatory applicability referred to in this comment is specifically a discussion of the applicability of the NSPS, Subpart OOOO requirements. It is not appropriate to discuss state requirements for existing sources in this section. The regulatory discussion for state requirements are discussed in the regulatory applicability section for state requirements that begins on page 5.

DAQ Action

DAQ expanded the discussion of 45CSR13 in the final version of the G70-A fact sheet.

COMMENT # 72:

On page 13, "Regulatory Applicability" for 40 CFR Part 63, Subpart HH for dehydration units, it is unclear why DAQ chose to exclude these common units from this DRAFT permit, while electing to include requirements for reciprocating internal combustion engines from 40 CFR 63, Subpart ZZZZ. While the applicability discussion states that 40 CFR 63, Subpart HH doesn't apply to the G70-A permit because dehydrators are excluded, this simply begs the question. There is no rational basis or reasoned explanation provided for why the state has chosen to exclude dehydration units. Please reconsider this choice and reach the common-sense conclusion that dehydrators, as common well site operations, should be included in this general permit. Failing that, please provide a clear, logical explanation for excluding these common operations from the DRAFT permit that does not on its face appear arbitrary and capricious.

Received by: SAIC Energy

DAQ Response

Please see DAQ response to comment # 4.

DAQ Action

The regulatory section of the engineering evaluation has been revised in the final version based on DAQ response to comment #4.

SECTION III – Comments regarding the Draft Application Forms/Instructions

COMMENT #73:

On page 5, "1.0 Definitions" for Natural Gas Compressor Engines, the reference here is the same from other general permits that exclude well-site operations. Please revise this definition to clearly indicate that these compressors are intended to act as VRUs and provide other compression needs supporting oil and natural gas well site production activities.

Received by: SAIC Energy

DAQ Response

These natural gas compressor engines may or may not be used as part of a VRU system. The definition however does reference gathering lines and transmission pipelines that are not included in the scope of the G70-A general permit.

DAQ Action

DAQ will revise this definition in the final version of the Application Instructions and Forms for the General Permit G70-A.

COMMENT #74:

On page 9, “3.0 Attachments and Supporting Documents” the statement “Control devices meeting the requirements of G70-A and registered under General Permit G70-A are considered federally-enforceable.” is confusing. The emissions limitations established under the permit, when issued in accordance with the requirements and procedures in 45-13 can create legally and practically enforceable restrictions when they are supported with adequate monitoring, testing, recordkeeping and reporting. DAQ’s statement seems to indicate that the existence of a control device itself is federally enforceable. It may be more accurate to state that the terms and conditions of G70-A related to the installation and operation of emission control equipment are also considered federally-enforceable limitations on potential to emit. Please revise this statement.

Received by: SAIC Energy

DAQ Response

The federally enforceable reference is not needed in the instructions and forms document.

DAQ Action

DAQ deleted the referenced comment in the final version of the Application Instructions and Forms for the General Permit G70-A. DAQ also deleted the reference to federal enforceability that was on Attachment “H”.

COMMENT #75:

Section II, Item 18A of the application form reads, “Briefly describe the proposed change(s) to the facility.” We suggest that it be revised to read, “Briefly describe the proposed new operations or change(s) to the facility”.

Received by: Antero Resources

DAQ Response

Agreed.

DAQ Action

DAQ will revise item 18A of the application form as requested.

COMMENT #76:

Attachment “G” is a new *Storage Vessel Affected Facility Data Sheet*. This new form contains information that is very similar to the existing Rule 13 Attachment L – *Emission Unit Data Sheet Storage Tanks*. We believe that the use of multiple forms to collect similar information will lead to confusion and unnecessary lost time. To the extent possible, we request that WVDEP consider using a single form rather than two different forms are require similar information so as to simplify the permit application process. This comment applies to other emission units as well such as Attachment H – *Vapor Combustion* vs. the existing Attachment M for *Air Pollution Control Devices* and the Attachment G – *Tank Truck Loading Data Sheet* vs. the existing Attachment L – *Emission Unit Data Sheet Bulk Liquid Transfer*.

Received by: Antero Resources

DAQ Response

The background for using attachments specific to the G70-A registration application is a carry-over from other industries that also use the general permit application for the existing general permits that were previously developed. All general permit forms and instructions are intended to be comprehensive and stand-alone documents for the specific general permit registration application for which the registrant is applying. Other industries that use the general permit application may not be as familiar with the R13 construction forms.

To keep the general permit program consistent across all general permits and industries, the same methodology will continue to be used for the G70-A forms and instruction documents; however, if the registrant is more comfortable continuing to use the forms that have been submitted with the construction permits they will be accepted if they provide all of the required information for a complete application.

DAQ Action

The instructions for Attachments “G” and “H” have been revised in the final version of the Application Instructions and Forms for General Permit G70-A Document accordingly.

COMMENT #77:

Attachment G – Natural Gas Well Affected Facility Data Sheet. If DAQ takes the position that a General Permit is not required for well completion activities, this form would appear to be inappropriate to include with the Draft General Permit. For purposes of consistency, and to minimize confusion among the regulated community regarding what activities are subject to the General Permit, the removal of this form from the packet is requested.

Received by: CONSOL, WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

DAQ has not changed its position that the requirements for Natural Gas Wells are applicable requirements and will remain in the final version of the G70-A general permit. DAQ is gathering information regarding the natural gas wells on this application form. The form will remain in the application package. DAQ has not changed its position that the general permit is not required prior to the well completion activities. Please refer to DAQ response to comment #15 regarding G70-A section 5 for additional background.

DAQ Action

DAQ simplified the Natural Gas Well Affected Data Sheet (Attachment G) to include only the information that will be included in the G70-A registration.

COMMENT #78:

Attachment “G” is a new *Storage Vessel Affected Facility Data Sheet*. Section 41 of this form requires operators to identify the “Material Name and CAS No” for storage vessel emissions. Because only emissions of VOCs and HAP are anticipated, however, the Associations believe that “pollutant” should be substituted for “Material Name and CAS No”.

Received by: CONSOL, WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

DAQ does not agree with the request because the existing wording allows for speciated VOC and HAP identification in addition to total VOC and total HAP emissions data. DAQ does acknowledge that there is not a corresponding CAS number for “total HAP” or for “total VOC”.

DAQ Action

No action taken.

COMMENT # 79:

On page 12, “3.0 Attachments and Supporting Documents” for Attachment M “Siting Criteria Waiver” appears to overlap with the regulatory authority for the Office of Oil and Gas (*see* West Virginia Code 22-6A-12(a)) and therefore inappropriate to include in an air permit. DAQ does not have the authority to implement this Code section. The broad authority provided in 45-13-5.11 cannot be read to implicitly extend beyond air pollution control to regulate zoning or well siting. Please remove this requirement as beyond the authority of the Secretary to implement through an air permit.

Received by: SAIC Energy

DAQ Response

The siting criteria waiver (if used) is ONLY for compliance with section 3.1 of the G70-A general permit. The siting criteria waiver (if used) does not overlap with the regulatory authority of the Office of Oil and Gas. Compliance with the siting criteria waiver does not override other requirements contained within the G70-A general permit, nor does it override any requirements that are authorized and regulated by DEP’s Office of Oil and Gas.

The permission/approval for Gas Well Drilling is not part of the G70-A general permit and is handled by the WV DEP, Office of Oil & Gas.

For additional background information regarding siting criteria, please reference DAQ response to comment #29. Sources that do not meet the siting criteria of the general permit and cannot obtain a waiver(s) are not eligible for the G70-A general permit registration and must apply for a construction permit under 45CSR13.

DAQ Action

No action taken.

COMMENT # 80:

On page 14, “Section Applicability Form” the note at the bottom of the page should indicate that the NSPS applies only to those storage vessels constructed, modified, or reconstructed following the applicability date of the regulations. This should also be carried over to the storage vessel affected facility data sheet, which does not include a selection for existing sources.

Received by: SAIC Energy

DAQ Response

The storage vessel affected facility data sheet, item #5 identifies the date installed or modified for existing tanks. The note that was at the bottom of the section applicability form was originally added for the purpose of clarification but it is not needed and will be removed.

DAQ Action

The note that was at the bottom of the page was removed to prevent confusion.

COMMENT # 81:

On page 40, “G70-A Example Opacity Record” appears to be misnamed. This sheet is a visible emissions evaluation sheet based on U.S. EPA Method 22, and does not include any determination of opacity using U.S. EPA Method 9. Please rename this sheet.

Received by: SAIC Energy

DAQ Response

This form was used from a different permit where it is an example form that can be used for opacity or visible emissions. It is an example only and is not required. That being said, DAQ agrees to update the title to minimize confusion.

DAQ Action

DAQ revised this form in the final version of the Application Instructions and Forms for the General Permit G70-A.

COMMENT # 82:

On Page 41, “Aggregation Determination Guidance” the guidance includes reference to the NAICS codes as one criterion of determining source aggregation. This appears to be in error, and in contravention of the State’s implementation plan and the Clean Air Act. The regulatory framework surrounding source aggregation is well-defined, and only the Source Industrial Classification (SIC) Code may be used in this determination. The NAICS is neither referenced in the state or federal regulatory framework nor should it be utilized in practice.

Received by: SAIC Energy

DAQ Response

Although the North American Industry Classification System (NAICS) that was adopted in 1997 to replace the Standard Industrial Classification (SIC) system is the standard used by Federal statistical agencies, it is the two-digit SIC code that is considered for the same major industrial grouping as one of the three factors in the single source test for aggregation. The SIC code is included in the “major source” definition in 45CSR30 and included in “building, structure, facility, or installation” definitions in 45CSR14 and 45CSR19.

DAQ Action

The aggregation determination guidance was updated in the final version of the application and instruction forms for the G70-A general permit to include only the SIC code in the discussion.

COMMENT #83:

Attachment “M” (Siting Criteria Waiver). The form indicates that the applicant “will construct a natural gas compressor station”...This statement should be revised to state, “will construct a *natural gas production facility...*”

Received by: Antero Resources

DAQ Response

DAQ agrees with the comment. This was inadvertently not corrected when it was copied from another document.

DAQ Action

DAQ has updated the example waiver and section 3.1.1 as discussed in the DAQ response.

COMMENT #84:

Applicants must provide a facility’s SIC code, as Federal and State Regulations require the use of SIC codes in making source determinations. For the following reasons, WVDEP must determine, or require the applicant to provide, the facility’s SIC code. NAICS codes are not an adequate substitute for SIC codes for source determination analysis’s. (A) The federal and state definitions of “source” reference the SIC code, not the NAICS code. (B) SIC and NAICS codes do not perfectly correspond with each other. (C) SIC code 1311 is not the only SIC code that may apply to affected facilities. (D) Proper use of these codes is vital to determining whether sources are part of the “same industrial grouping” for purposes of aggregation analysis.

Received by: GASP, WV SORO, Ohio Valley Environmental Coalition, WV Sierra Club, Wetzel County Action Group, WV-CAG

Supported by: George Monk and Molly Schaffnit

DAQ Response

DAQ agrees that the applicants must provide a facility’s SIC code to make the source determinations. The definition of “major source” in 45CSR30 (Requirements for Operating Permits) includes a reference to the SIC code. The definition of “major stationary source” or “source” in 45CSR14 (Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration) do not include a

reference to the SIC code. The SIC code is however referenced in the definition of “building, structure, facility, or installation” in 45CSR14 §2.13.

Standard Industrial Classification (SIC) codes are four digit numerical codes assigned by the U.S. government to business establishments to identify the primary business of the establishment. The classification was developed to facilitate the collection, presentation and analysis of data; and to promote uniformity and comparability in the presentation of statistical data collected by various agencies of the federal government, state agencies and private organizations. The classification covers all economic activities.

According to the U.S. Census Bureau, the North American Industrial Classification (NAICS) is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy. NAICS was developed and adopted in 1997 to replace the Standard Industrial Classification (SIC) system.

SIC code 1311 is for establishments primarily engaged in operating oil and gas field properties. Such activities may include exploration for crude petroleum and natural gas; drilling, completing, and equipping wells; operation of separators, emulsion breakers, desilting equipment, and field gathering lines for crude petroleum; and all other activities in the preparation of oil and gas up to the point of shipment from the producing property. This industry includes the production of oil through the mining and extraction of oil from oil shale and oil sands and the production of gas and hydrocarbon liquids through gasification, liquid fraction, and pyrolysis of coal at the mine site. Also included are establishments which have complete responsibility for operating oil and gas wells for others on a contract or fee basis.

NAICS code 211111 is for Crude Petroleum and Natural Gas Extraction. The U.S. industry comprises establishments primarily engaged in (1) the exploration, development and/or the production of petroleum or natural gas from wells in which the hydrocarbons will initially flow or can be produced using normal pumping techniques or (2) the production of crude petroleum from surface shales or tar sands or from reservoirs in which the hydrocarbons are semisolids. Establishments in this industry operate oil and gas wells on their own account or for others on a contract or fee basis.

The applicability section 2.3.1 of the G70-A general permit limits the applicability to SIC code 1311 and NAICS code 211111.

DAQ Action

DAQ has revised the following in the final versions of the documents:

- Application and instruction forms – (1) instructions for item #8 of the application and (2) the aggregation discussion guidance will be clear that the SIC code is used when making major source determinations.
- G70-A General Permit Registration removed “or”.
- G70-A Fact Sheet –updated the aggregation determination section to only reference SIC codes.

COMMENT #85:

The Associations believe that a \$2,500 NESHAP fee for facilities subject to 40 CFR Part 63, Subpart ZZZZ is unnecessary when the requirements of Subpart ZZZZ are satisfied by complying with the NSPS requirements of 40 CFR Part 60, Subpart JJJJ. Therefore, we request that a provision be added to waive the NESHAP fee under these, or similar, circumstances.

Received by: Chesapeake, WVONGA, IOGA

Supported by: Antero Resources, Marcellus Shale Coalition

DAQ Response

DAQ re-evaluated the \$2,500 NESHAP fee for facilities with new engines that satisfy the NESHAP, Subpart ZZZZ requirements by complying with the NSPS, Subpart JJJJ engine requirements and will not apply the NESHAP fee under this circumstance. Upon request of several commenters, glycol dehydration units will be added to the G70-A as well as NESHAP, Subpart HH. Sources subject to Subpart HH will be charged the \$2,500 NESHAP fee.

DAQ Action

DAQ updated the final version of the G70-A engineering evaluation and the final version of the G70-A forms and instruction documents accordingly.

COMMENT #86:

General Permit Application Fee and Time Table. There is an error in the total fee calculation for the Class II Administrative Update. It should be \$3,800 instead of \$4,000.

Received by: Chesapeake

DAQ Response

DAQ agrees with comment.

DAQ Action

DAQ updated the General Permit Application Fee and Time Table in the final versions.