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Response to Public Comments

R30-03900682-2025

Specialty Products US, LLC

Date: December 20, 2024

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FACILITY DESCRIPTION

Specialty Products US, LLC (Specialty Products) produces POLYOX™ which is a water-soluble polymer used in pharmaceuticals, personal care products, adhesive, and flocculation markets. The POLYOX™ unit manufactures polyethylene oxide (PEO) by polymerizing ethylene oxide (EtO). It is manufactured by reacting various chemicals to form a solid in the presence of a diluent. The POLYOX™ solids are packaged for worldwide distribution. The POLYOX™ Plant uses a flare, a vent scrubber, and baghouses to control emissions. The facility is located in Institute, Kanawha County, WV.

STATUTORY AUTHORITY OF THE DAQ

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

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

Therefore, while the code states that the intent of the rule includes the criteria outlined in the latter part of the above sentence, it is clear by the underlined and bolded section of the above sentence that the scope of the delegated authority does not extend beyond the impact of air quality on these criteria. Based on the language under §22-5-1, et. seq., the DAQ, in making determinations on issuance or denial of permits under WV Legislative Rule 45CSR30 - Requirements for Operating Permits (45CSR30 or Title V) and 45CSR13 - 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 (45CSR13 or NSR), does not take into consideration substantive non-air quality issues such as job creation, economic viability of proposed project, strategic energy issues, non-air quality environmental impacts, nuisance issues, etc.

DAQ's TITLE V PROGRAM

Under the authority of 45CSR30, the DAQ issues Title V operating permits to major sources of emissions. A major source for Title V is defined as a facility having potential emissions of one or more regulated air pollutants that are 100 tons per year or more; one or more hazardous air pollutants that are 10 tons per year or more; and/or aggregate hazardous air pollutants that are 25 tons per year or more.

The Title V program was established in the 1990s to issue operating permits that include all of a facility's applicable air requirements. Section 5.1 of 45CSR30 states that each Title V operating permit issued shall include all applicable requirements that apply to the source at the time of

permit issuance. The Draft Title V Permit for Specialty Products which went out for public comment on February 9, 2024 included all the source's applicable air regulatory requirements at that time, specifically requirements from their minor new source review (NSR) permit, state rules, and federal regulations.

The Title V operating permit does not establish new emission or operating limitations. Emission and operating limitations are established through new source review permits, state rules, and federal regulations.

Title V permits are issued for a fixed term of five (5) years and must be renewed. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration. Specialty Products submitted a complete application to renew their Title V permit on June 8, 2022. The renewal application was due on June 19, 2022. Since the application was timely and complete, Specialty Products received an application shield which allows them to operate under the conditions of their current Title V permit until the Secretary takes final action on this Title V permit renewal application.

PUBLIC ENGAGEMENT FOR THIS TITLE V PERMIT RENEWAL

A combined public notice for the Draft Title V Permit, public meeting, and public hearing was published in *The Charleston Gazette-Mail* on Friday, February 9, 2024. The in-person public meeting was held on Monday, March 11, 2024. The virtual public hearing was held on Tuesday, March 19, 2024. The public comment period ended on March 29, 2024, ten days after the virtual public hearing, pursuant to 45CSR§30-6.8.c.2.

The DAQ received written comments during the public comment period (February 9, 2024 to March 29, 2024, 49 days total) and oral comments during the March 19, 2024 virtual public hearing. Pursuant to §45-30-6.8.e, all comments received during the public comment period and during the public hearing have been reviewed and are addressed in this document.

During the comment period, several commenters requested extension of the comment period because revisions to the National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry (HON MACT, 40 C.F.R. 63 Subparts F, G, and H) were expected to be signed on the final day of the public comment period, March 29, 2024. The DAQ did not extend the public comment period because Specialty Products is subject to the National Emission Standards for Hazardous Air Pollutant Emissions for Polyether Polyols (40 C.F.R. 63 Subpart PPP) and is only subject to the HON MACT by reference. DAQ determined that should any of the HON MACT provisions included by reference in the Title V operating permit require revisions, the Title V permit for Specialty Products could be reopened for cause pursuant to 45CSR§30-6.6.a. 45 CSR§§30-6.6.a and 6.6.a.1 states that a permit shall be reopened and revised if additional applicable requirements under the Clean Air Act or the Secretary's rules become applicable to a major source with a remaining permit term of three (3) or more years. Such reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. Reopenings for cause are subject to the same public comment procedures as those for permit renewals, with the exception that comments will only be accepted for those parts of the permit for which cause to reopen exists. Since the public would

get the opportunity to comment on potential changes to the permit as a result of reopening for cause, the public comment period was not extended.

The HON MACT revisions were effective on May 16, 2024. Since a Proposed Title V permit was not issued until after the effective date of the HON MACT changes, DAQ reviewed Specialty Products' Title V permit to see if any changes are needed as a result of the revised HON MACT. The only change identified was the addition of the following sentence at the end of Title V permit condition 4.5.4.1: "Include the identification of the treatment process, the parameter that was out of range, and the date the parameter was out of range."

Commenters also mentioned that because Specialty Products is in an environmental justice community, the public comment period should be extended by at least 30 days to ensure fair treatment and meaningful participation. Also mentioned in the comment was EPA's *EJ in Air Permitting - Principles for Addressing Environmental Justice Concerns in Air Permitting* document which provides that air permitting should adopt certain practices in environmental justice communities such as engaging those communities early in the permitting process to ensure fair treatment and meaningful participation, including by making the administrative record and data easily available and using multiple methods of communication to encourage public engagement.

In addition to several outreach meetings regarding ethylene oxide (EtO) emissions from this facility and others in the Kanawha Valley discussed more in-depth below, for this specific Title V operating permit renewal: 1) The Title V renewal application was made available on DAQ's website (see Application Xtender Query Instructions) when submitted on June 8, 2022; 2) The application, permit, and fact sheet were available on DAQ's website when the public notice was published on February 9, 2024; 3) The DAQ published a notice in *The Charleston Gazette-Mail* on Friday, February 9, 2024 opening the comment period, announcing a public meeting to answer questions, announcing a public hearing to receive oral comments, and providing the website address for accessing the renewal application, draft permit, and fact sheet; 4) The West Virginia Department of Environmental Protection's (WV DEP) website has a mailing list where individuals can sign up to receive public notices announcing agency actions; and 5) The scheduled public meeting and public hearing were announced during the monthly Community Advisory Panel (CAP) meetings in South Charleston and the Western Kanawha Valley, which are made up of local officials, non-profit organizations, citizen groups, citizens, and local businesses.

A public meeting and hearing are not part of the standard operating procedures for Title V operating permits because of the substantial resources involved. However, because of the community's concerns with EtO emissions from this facility, the DAQ did not wait until a request was received to schedule a public hearing. The DAQ also held a public meeting to answer questions about the Title V operating permit renewal more than one week prior to the public hearing. The public meeting is not required under our Title V rule, 45CSR30, but was held to engage the community and solicit informed comments on the Title V operating permit renewal. For this Title V operating permit renewal, the DAQ engaged in additional outreach to the community due to the environmental justice concerns.

The DAQ has been transparent in the Title V permitting process, made the permitting documents easily accessible to the public, notified citizen groups and local officials, and held a public meeting to provide information and answer questions. Through the aforementioned notices,

meeting and hearing the DAQ provided fair treatment and ample opportunity for meaningful participation for the communities surrounding Specialty Products.

ORGANIZATION OF COMMENT RESPONSE

The DAQ's response to comments defines issues over which the DAQ and its Title V Program has authority and by contrast, identifies those issues that are beyond the purview of the DAQ and its Title V Program. The response also describes the statutory basis for the issuance/denial of a permit.

This document does not reproduce all the comments here (they are available for review in the R30-03900682-2025 application file accessible on Application Xtender at https://dep.wv.gov/daq/permitting/titlevpermits/Pages/default.aspx). Instead, comments are summarized and key points are listed. In some cases, similar individual comments were combined into one general comment. The DAQ makes no claim that the summaries are complete; they are provided only to place the responses in a proper context. For a complete understanding of submitted comments, please see the original documents in the file. The DAQ responses, however, are directed to the entirety of comments received, not just to what is summarized.

RESPONSE TO COMMENTS ON DRAFT TITLE V PERMIT CONTENTS

The DAQ received comments on the contents of the Draft Title V Permit. Some of these comments resulted in changes to the conditions of the permit while others did not. Comments received on the Draft Title V Permit are discussed in more detail below.

Emission point 230HH should be added to Permit Section 1.1 as venting to the Flare A221

Commenters said the Title V permit renewal application stated that "Emission Point 230HH is no longer venting to the air and is now routed to Flare A221" and that Emission Point 230HH should be added to the Title V Emission Units Table, Section 1.1, as routing to the flare.

This was an error in the current Title V permit renewal application. Emissions from 230HH were addressed in the previous renewal via a comment made by Jay Fedzak on November 13, 2017 that states the following:

> "Just recently, a change was made to the process that eliminated emission point 230HH. New molecular sieves were installed and, instead of having a vent to the atmosphere, are now routed back into the process for recovery. As such, the emission unit labeled V412E/W, vented through emission point ID 230HH should be eliminated from the Emission Unit table (near bottom of page 3). Also, the row that has the limit in the table under 5.1.14 for V412E/W may be removed along with the reference to 230HH in 5.4.12."

The facility was notified of the error and a correction to the current Title V renewal application was made on April 16, 2024.

Condition 3.3.1.(b) should be removed from the Title V Permit

Commenters suggested that section 3.3.1.(b) could be read to unlawfully allow WVDEP to unilaterally weaken SIP testing and monitoring requirements and approve testing and monitoring changes without following the required procedures for a Title V minor or significant modification. Section 3.3.1(b) states the following:

> "The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit."

The commenters claim that if a SIP rule specifies a testing or monitoring requirement, WVDEP cannot weaken that requirement through an "alternative" without USEPA approval to revise the SIP. They also allege that except for more frequent monitoring or reporting, which can be incorporated through an administrative amendment to a Title V Permit, all changes to a Title V permit's monitoring, testing, and reporting requirements must be made through either a minor or significant permit modification; and without going through a significant modification, the public does not have an opportunity for comment.

This condition, 3.3.1.(b) from the Title V permit boilerplate refers to testing specified in West Virginia's SIP rules. Particularly, for the flares at Specialty Products, the Title V permit includes a testing condition (condition 4.3.2) from West Virginia's SIP rule 45CSR6 which states:

> "At such reasonable time as the Director may designate, the operator of any incinerator shall be required to conduct or have conducted stack tests to determine the particulate matter loading, by using 40 C.F.R. 60, Appendix A, Method 5 or other equivalent EPA approved method approved by the Director, in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or the Director's authorized representative, may at the Director's option witness or conduct such tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices. *(A221)* **[45CSR§6-7.1]**"

45CSR6 regulates a variety of sources of particulate matter emissions from combustion of refuse, such as flares, thermal oxidizers, thermal catalytic oxidizers, and human and animal crematories. The rule was designed as a one size fits all for combustion sources, and the testing requirements in the rule were written to allow testing flexibility because stack testing is not a one size fits all for various combustion sources. The rule states the following: "shall be required to conduct or have conducted stack tests to determine the particulate matter loading, by using 40 C.F.R. 60, Appendix A, Method 5 or **other equivalent EPA approved method approved by the Director**." Section 3.3.1(b) is written to allow this flexibility that was included in the SIP rules.

Another example of this flexibility written into West Virginia's SIP rules is from 45CSR§2-8.1 which states:

> "The owner or operator of a fuel burning unit(s) shall demonstrate compliance with section 3 by periodic testing in accordance with 40 CFR Part 60, Appendix A, Method 9 and 45CSR16, or a certified continuous opacity monitoring system, as approved by the Secretary, and section 4 by periodic particulate matter stack testing, conducted in accordance with the appropriate test method set forth in the Appendix 45-2 to this rule **or other equivalent EPA approved method approved by the Secretary**. The owner or operator shall conduct such testing at a frequency to be established by the Secretary."

Again, the SIP rule allows for a certain amount of flexibility as long as the testing is a USEPA approved method approved by the Secretary. Because of the flexibility allowed in many of West Virginia's SIP rules, Section 3.3.1.(b) was written to allow for this flexibility.

WVDEP agrees that specific testing requirements included in the Title V Permit cannot be changed without a minor or significant modification if such flexibility is not already stated in the requirement. However, in the cases regarding the SIP testing examples presented above, a change would not be required under Title V because the condition allows for an alternative USEPA approved test method approved by the Director. This would not be a change to the SIP rule and the Title V permit condition as this is already allowed. However, if for example, a minor NSR permit included a specific test method such as Method 5 to demonstrate compliance with a particulate matter emission limit and offered no language to allow for an additional equivalent USEPA approved method, a change to the minor NSR permit and Title V permit through a minor or significant modification would be required if the permittee wanted to use another test method other than the one prescribed in the permits.

WVDEP does not agree that as written, condition 3.3.1.(b) allowed for changes to the SIP or to Title V that would bypass the SIP approval process or the permit revision process. However, in WV's Response to Petition No. III-2023-16 for the Union Carbide Corporation Institute Facility's Title V permit, WVDEP agreed to add the following clarifying language to Title V boilerplate condition 3.3.1.(b) **(in bold underline)**:

"The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. **If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit will be revised in accordance with 45CSR§30-6.4 or 45CSR§30-6.5 as applicable.**"

Condition 3.3.1.(b) has been changed in this Specialty Product's Title V permit and also in the Title V permit boilerplate, effective September 23, 2024.

Section 3.5.11 should be removed from the Title V Permit

Commenters stated the draft Title V permit contains an unlawful provision, permit section 3.5.11, that allows for a variance during repairs made as a result of routine maintenance or in response to an unavoidable malfunction of equipment. Commenters requested that the DAQ preemptively remove the variance provision from the Title V permit without waiting on EPA to cure the problems with the SIP call identified by the D.C. Circuit. Commenters also stated that the DAQ should submit a proposed SIP revision to EPA to remove 45CSR§21-9.3 and the other unlawful loopholes from the West Virginia SIP identified in the SSM SIP call.

Revisions to 45CSR21 were authorized under SB2 during the 2024 Legislative Session. The effective date of the rule revisions was June 1, 2024. As part of the 45CSR21 revisions, 45CSR§21-9.3 (Draft Title V condition 3.5.11) was removed, therefore it has been removed from the Title V permit.

Sections 4.1.7, 4.1.8, and 4.1.9 for Emission Points 230J and 230 GG

Commenters stated the Draft Title V permit does not include adequate monitoring testing, reporting, or recordkeeping requirements to ensure compliance with PM (condition 4.1.9) and opacity limits (conditions 4.1.7 and 4.1.8) for the facility's two baghouses (Control Device IDs E707 and E221A; Emission Point IDs 230J and 230GG).

The requirements for opacity and the hourly PM limits are from West Virginia's rule 45CSR7 which does not specify a compliance method other than stack testing upon request of the Director (45CSR§§7-8.1 and 8.2, Title V conditions 4.3.3 and 4.3.4). In absence of a compliance method under 45CSR7, requirements to demonstrate compliance were added in the initial Title V permit issued on December 19, 2006. The fact sheet for the POLYOX™ unit's initial Title V permit discussed the applicability of 45CSR§§7-3.1 and 4.1 to emission points 230J and 230GG and the compliance method chosen and justification for the compliance method chosen. The fact sheet from 2006 provided the following explanation (Note: Edited to remove emission point 230P which has been removed, change emission source ID from "230B" to "D230B", and to change the reference from 5.4.7 and 5.4.8 to 4.4.7 and 4.4.8 due to renumbering):

45CSR7 Requirements

Emissions from emission points 230GG and 230J are required by 45CSR§7-3.1 to be maintained at or below twenty percent opacity. Since particulate matter emissions from these sources result primarily from displacement of air or nitrogen from containers or vessels during material transfers and these sources are equipped with baghouses or filters to provide nuisance dust control, visible emission observations were not required. To demonstrate compliance with the visible emission limits, the permittee is required to conduct preventative maintenance on these control devices and to maintain malfunction and maintenance records as specified in 4.4.7 and 4.4.8.

Emission points 230GG and 230J are also subject to the particulate matter emission limits of 45CSR§7-4.1. Emission limits are calculated from Table 45-7A based on the maximum hourly process weight rate for a type 'a' source. The following table compares the 45CSR§7-4.1 allowable particulate emission limits with the maximum actual hourly emissions. Because emissions from these sources are controlled with baghouses or filters and actual emissions from each of these sources are less than 0.1 lbs/hr and are much less than the 45CSR§7-4.1 allowable emission limit, the permittee will demonstrate compliance with these limits through preventative maintenance of their control equipment. Malfunction and maintenance records for the baghouses and filter are required under 4.4.7 and 4.4.8.

Emission Point	Emission Source	45CSR§7-4.1 PM Emission Limit lb/hr	Maximum Actual Emissions lb/hr
230GG	D230B	0.7	0.015
230J	E-707	10	0.032

The DAQ also evaluated these emissions sources and their control devices for applicability to 40 C.F.R. 64 - Compliance Assurance Monitoring (CAM) to see if they were subject to additional monitoring requirements, however, pre-control device emissions were much lower than the major source threshold for particulate matter and therefore these emission sources were not subject to additional monitoring under CAM.

In EPA's order on Petition No. III-2023-16 for the Union Carbide Corporation Institute Facility's Title V permit, EPA described five factors permitting authorities may consider as a starting point in determining appropriate monitoring for a particular facility. These are: (1) variability of emissions from the unit in question; (2) likelihood of a violation of the requirements; (3) whether add-on controls are being used for the unit to meet the emission limit; (4) the type of monitoring, process, maintenance, or control equipment data already available for the emission limit; and (5) the type and frequency of the monitoring requirements for similar units at other facilities. In addition to the justification provided above from the 2006 initial Title V permit's fact sheet and

the CAM applicability determination, DAQ is also evaluating the existing monitoring using the five factors suggested by EPA.

(1) The variability of emissions from the unit in question.

The emissions are not variable. Particulate matter emissions from a hopper (D230B) and packaging vent collection system (E-707) result primarily from displacement of air or nitrogen from containers or vessels during material transfers. This can result in a small amount of dust.

(2) Likelihood of a violation of the requirements.

Maximum estimated hourly emissions are much less than the 45CSR§7-4.1 hourly particulate matter emission limits. For emission point 230GG, maximum estimated emissions are 0.015 lb/hr and the 45CSR§7-4.1 limit is 0.7 lb/hr. For emission point 230J, the maximum estimated emissions are 0.032 lb/hr and the 45CSR§7-4.1 limit is 10 lb/hr. In both cases, estimated emissions are significantly less than the allowable emission limit under 45CSR§7-4.1.

Opacity of 20% or greater is not expected from these emission sources since maximum estimated hourly emissions were calculated to be less than 0.1 lb/hr.

(3) Whether add-on controls are being used for the unit to meet the emission limit.

Baghouses with at least a 99% control efficiency are being used on the hopper (D230B) and packaging vent collection system (E-707). For a violation of the 45CSR§7-4.1 hourly particulate matter emissions limit for 230GG to occur, the baghouse E221A would have to be operating at less than 50% control efficiency. For emission point 230J, the baghouse E-707 is not needed to meet the 45CSR§7-4.1 hourly particulate matter emission limit.

Use of the baghouses will ensure the facility meets the opacity limits of 45CSR7, furthermore, even at the maximum pre-control device emission rate, these sources are likely capable of meeting the opacity limits without controls.

However, since the baghouse E221A is still needed to meet the 0.7 lb/hr emission limit of 45CSR§7-4.1, additional language has been added to the Proposed Title V permit to specify that external visual inspections shall be conducted no less than annually and shall evaluate the physical condition and need for corrective action.

(4) The type of monitoring, process, maintenance, or control equipment data already available for the emission limit.

Since the initial Title V permit was issued in 2006, the facility has demonstrated compliance with the 45CSR§§7-3.1, 3.2, and 4.1 limits for emission points 230GG and 230J through recordkeeping of maintenance and malfunctions of the baghouse as outlined in conditions 4.4.7 and 4.4.8. Due to the small amount of particulate matter emitted when compared to the hourly emission and opacity

limits, compliance through inspection and preventative maintenance of the baghouses has been effectively used since the initial Title V permit was issued in 2006.

(5) The type and frequency of the monitoring requirements for similar units at other facilities.

Other facilities with less than 0.1 lb/hr of particulate matter emissions, such a high margin of compliance with their 45CSR§7-4.1 hourly emission limits and opacity limits, and using a baghouse with at least a 99% efficiency could also be expected to be using a similar compliance determination method.

Commenters suggested that the permit must require PM CEMS (Continuous Emissions Monitoring) and COMS (Continuous Opacity Monitoring) to demonstrate compliance with the applicable emission limits. Considering the rather insignificant amount of particulate matter emitted as a result of the material transfer operations, the use of highly efficient baghouses for control, and the low likelihood of a violation of the 45CSR7 particulate matter emission and opacity limit, the suggested compliance demonstration methods are unnecessary and excessive. Title V does not require continuous monitoring for all emission points and recognizes other methods for compliance demonstration. Not even CAM or New Source Performance Standards under Section 111 would mandate PM CEMS or COMs for these types of emission sources.

Section 4.1.11 should be removed from the Title V Permit

Commenters requested that any malfunction and exemption language be removed from the Draft Title V permit. The DAQ has identified such malfunction language in condition 4.1.11 (45CSR§7-9.1). Revisions to 45CSR7 were authorized under SB2 during the 2024 Legislative Session. The effective date of the rule revisions was June 1, 2024. As part of the 45CSR7 revisions, 45CSR§7-9.1 (Draft Title V condition 4.1.11) was removed, therefore it has been removed from the Title V permit.

Section 4.1.14 and Attachment A Emission Limits

Commenters requested that DAQ use its discretion to make all ethylene oxide and VOC emission limits federally enforceable and specifically pointed out section 4.1.14 and Attachment A of the draft Title V permit which are designated as state-enforceable only. These emission limits are state-enforceable only because they are derived from state rules 45CSR§21-40 and 45CSR27 which are not federally enforceable because they are not included in West Virginia's State Implementation Plan (SIP). The Title V permit renewal can not designate state-only requirements as federally enforceable requirements at DAQ's discretion.

Commenters further requested "that DAQ (1) bring Specialty Products into compliance with the collaborative agreement and require Specialty Products to lower its limits for ethylene oxide emissions; (2) revise the Draft Permit to include actionable collaborative agreement terms as enforceable permit requirements; and (3) add monitoring requirements and other conditions sufficient to ensure compliance with the Draft Permit's standards for ethylene oxide, as well as propylene oxide, other HAPs, and VOCs."

Under the Findings of Fact section of Specialty Products' collaborative agreement, Item 2 states that "The Facility is currently in compliance with state and federal air regulations applicable to EtO." The collaborative agreement includes site-specific state-only enforceable commitments (not requirements) to reduce the Facility's emission limitations to reflect its current business plan and to conduct a feasibility study to determine if additional controls can be implemented. These emission reductions are not required by any state or federal air regulations and are voluntarily agreed upon by DAQ and Specialty Products. There was no timeline specified in the collaborative agreement that Specialty Products must meet in this voluntary collaborative agreement; therefore, Specialty Products is not out of compliance with the collaborative agreement. DAQ recognizes that the project to route EtO emissions from previously uncontrolled sources to the flare A221 will require time to implement and since this project is voluntary will provide Specialty Products adequate time to complete this project.

Secondly, the Title V permit must include all of a facility's applicable requirements and these have been included in the Draft Title V Permit. DAQ does not have authority through its Title V rule, 45CSR30, to include actionable collaborative agreement terms as enforceable requirements. Eventually, reduced EtO emission limits will be included in the Title V permit once they are reviewed and approved through the minor new source review (NSR) permitting program. Title V permits do not create emission or operating limits. They only include applicable emission and operating limits contained in state rules, federal regulations, or NSR permits.

Lastly, commenters disagreed that the monitoring methods included in the Draft Title V permit adequately demonstrated compliance with the emission limits for EtO and propylene oxide in condition 4.1.14 and Attachment A. In response DAQ offers the following explanation:

Compliance with the emission limits in condition 4.1.15 demonstrate compliance with the state-enforceable hourly and annual EtO emission limits in condition 4.1.14 for emission point 221A. The flare (A221), venting through emission point 221A is a control device used for complying with the process vent requirements of 40 C.F.R. 63, Subpart PPP and must meet all applicable requirements under this subpart.

To demonstrate compliance with the state-enforceable hourly and annual EtO emission limits for the POLYOX™ Solids Handling System (emission points 230K, 230L, 230M, 230R, and 230J), derived from the state-enforceable only rule 45CSR27, the permittee is required to maintain records of material throughput as specified in condition 4.4.11. These record keeping requirements were added to the initial Title V permit issued on December 19, 2006 since state-enforceable 45CSR27 and the state-enforceable consent order these limits were derived from did not specify a method to demonstrate compliance. The fact sheet for the POLYOX™ unit's initial Title V permit discussed the 45CSR27 requirements and included the justification for using material handling records to demonstrate compliance with the EtO emission limits for the POLYOX™ Solids Handling System. The fact sheet from 2006 stated that "since emissions from the system result primarily from the venting of process inerting gas to the atmosphere and the amount of gas released is a function of the polymer transfer rate, controlling the amount of polymer transferred will limit the amount of inerting gas vented to the atmosphere, thereby controlling emissions of ethylene oxide." In addition to the annual checks on the rotary valve speed, the permittee is required to maintain the twelve month rolling total of ethylene oxide emissions calculated from the production rate and the amount of material vented per amount of product produced. These records are maintained no less than monthly and demonstrate

compliance with the annual emission limits and can be used to verify compliance with the hourly limits.

To demonstrate compliance with the state-enforceable hourly and annual ethylene oxide emission limits for emission points 230O and 230Q, derived from the state-enforceable only rule 45CSR27, the permittee is required to maintain records of the total number of emitting events occurring during the month as specified in condition 4.4.12. For emission point 230O, condition 4.4.12 also requires the permittee to maintain records of the duration of each emitting event. These record keeping requirements were added to the initial Title V permit issued on December 19, 2006 since state-enforceable 45CSR27 and the state-enforceable consent order these limits were derived from did not specify a method to demonstrate compliance. The justification provided in the 2006 fact sheet stated that the monthly records of emitting events can be used to calculate the twelve month rolling total of annual ethylene oxide emissions. For emission point 230O, the amount of material vented per event and the duration of the event can be used to calculate an hourly emission rate. For emission point 230Q, since emission limits in condition 4.1.14 are 0.2 lbs/hr and 2 lbs/year, only monthly records to demonstrate compliance with the twelve month rolling total emission limit were required since the hourly limit was only 1/10th of the annual emission limit.

To demonstrate compliance with the state-enforceable only hourly and annual propylene oxide emission limits for emission point 230B, derived from the state-enforceable only rule 45CSR27, the permittee is required by condition 4.4.13, to maintain records of scrubber water flow meter calibrations and records of functionality checks conducted on the scrubber interlock system. These record keeping requirements were added to the initial Title V permit issued on December 19, 2006 since state-enforceable 45CSR27 and the state-enforceable consent order these limits were derived from did not specify a method to demonstrate compliance. The justification provided in the 2006 fact sheet stated that operation of vessel 4903 is interlocked to prevent operation if the water flow rate to the scrubber is less than 25 gallons per minute. Calibrating the water flow meter and checking the functionality of the scrubber interlock system will demonstrate that Vesel 4903 will not operate if the scrubber is not functioning at a level to prevent emission exceedances. Since emissions of propylene oxide are controlled by a scrubber, the DAQ also evaluated this emission source and the scrubber for applicability to 40 C.F.R. 64 - Compliance Assurance Monitoring (CAM) to see if it was subject to additional monitoring requirements, however, pre-control device emissions were much lower than the major source threshold for a single hazardous air pollutant and therefore these emission sources were not subject to additional monitoring under CAM.

To demonstrate compliance with the state-enforceable only hourly and annual propylene oxide emission limits for emission point 230S, derived from the state-enforceable only rule 45CSR27, the permittee is required by condition 4.4.14, to maintain records of the date and material throughput. These record keeping requirements were added to the initial Title V permit issued on December 19, 2006 since state-enforceable 45CSR27 and the state-enforceable consent order these limits were derived from did not specify a method to demonstrate compliance. The justification provided in the 2006 fact sheet stated that material throughput can be used to demonstrate compliance with the emission limits.

Attachment A emission limits are state-enforceable only requirements from section 40 of 45CSR21. To demonstrate compliance with these limits, the permittee is required by

state-enforceable only 45CSR§21-40.5 to demonstrate compliance by testing, monitoring, approved emission factors, material balances, and/or representative calculations in accordance with 45CSR21. Specialty Products' Attachment A emission limits are part of an alternative emissions reduction plan approved by the Director in accordance with 45CSR§21-40.3.b.

Flare A221 monitoring requirements are insufficient

The DAQ received a comment that the flare monitoring requirements contained within the Draft Title V Permit are not sufficient to ensure compliance with the emission limits for PM_{10}, PM, SO_2, NO_x, CO, VOCs, EtO, ethylene glycol, glycol ethers and isophorone. The source of these emission limits is minor NSR permit R13-0171E issued on January 30, 2012 (later superseded and replaced by R13-3404A without a change to the emission limits for Flare A221). To demonstrate compliance with these emission limits, a multiple pronged approach was used.

This flare is subject to the requirements of 40 C.F.R. 63, Subpart PPP. Condition 4.1.1 of the Draft Title V Permit states that for the flare, the owner or operator shall comply with 40 C.F.R. §63.1437(c) as specified in condition 4.3.7, and is not required to demonstrate the control efficiency for the flare, if the owner or operator chooses to assume a 98 percent control efficiency for the flare. Under condition 4.3.7, the owner or operator shall comply with the following:

(1) Conduct a visible emission test using the techniques specified in 40 C.F.R. §63.11(b)(4) of the General Provisions;

(2) Determine the net heating value of the gas being combusted, using the techniques specified in 40 C.F.R. §63.11(b)(6) of the General Provisions; and

(3) Determine the exit velocity using the techniques specified in either 40 C.F.R. §63.11(b)(7)(i) (and 40 C.F.R. §63.11(b)(7)(iii), where applicable) or 40 C.F.R. §63.11(b)(8) of the General Provisions, as appropriate.

If the owner or operator complies with these conditions, they are not required to conduct a performance test to determine percent emission reduction or outlet organic HAP or total organic compounds (TOC) concentration.

Additionally, commenters stated that the minimum net heating value of 200 Btu/scf (7.45 MJ/scm) or greater (condition 4.1.17) and the flare gas exit velocity of less than 60 feet per second (18.3 m/sec) (condition 4.1.18) only require the one-time test specified in 40 C.F.R. 63, Subpart PPP (condition 4.3.7) and this is not adequate. The testing specified in 40 C.F.R. 63, Subpart PPP is the method determined by US EPA to be used to demonstrate compliance with the limits. If US EPA determines that increased testing is needed, revisions to Subpart PPP will add those requirements which will then be incorporated in the Title V permit through a reopening or modification.

Commenters also suggested that instead of including the correct applicable flare requirements from 40 C.F.R. 63, Subparts A and PPP which they determined were old and outdated, DAQ should incorrectly apply flare requirements developed for the petroleum refining sector which do

not apply and may not be appropriate for the polyether polyols sector. Again, the US EPA should determine if changes to the requirements of 40 C.F.R. 63, Subparts A and PPP are appropriate and if changes are made to the MACT standards, these will be reflected in the Title V permit as a reopening or modification.

To demonstrate compliance with the hourly and annual emission limits of VOCs and EtO from condition 4.1.15, the flare must be operated continuously when VOCs and/or HAPs are present in the process header vent gas (condition 4.1.16). The permittee must install, operate, and maintain a monitoring device capable of continuously detecting that at least one pilot flame or the flare flame is present (condition 4.1.19) and maintain records of such monitoring (condition 4.2.3). The permittee must monitor and record, at least once per day when VOCs are present in the flare header vent gas, the natural gas flow rate to the flare and meet the minimum natural gas flow rate limit of 0.5 scfm (condition 4.2.4), which also demonstrates that the minimum heating value for the gas stream in condition 4.1.17 is being met. The permittee must maintain maintenance and malfunction records of the flare (conditions 4.4.7 and 4.4.8); and must meet the 40 C.F.R. 63 Subparts A and PPP compliance demonstration requirements described above since VOC and HAP emissions and flares are regulated under these subparts.

Hourly and annual CO, NO_x, PM_{10}, and PM emission limits from condition 4.1.15 were based on emission factors from Section 13.5 of US EPA's AP-42 and the maximum header loading (see footnote 1 of condition 4.1.15 for the maximum annual loading). Proper operation of the flare (minor NSR requirements and 40 C.F.R. 63 Subparts A and PPP) as described above shall demonstrate compliance with these limits. The commenters state that these emission factors and calculation methods should be included in the Title V permit. The Title V permit includes the applicable requirements from the underlying NSR permit, not the emission calculations methods and emission factors. These were included in the NSR permit application and used to set the emission limits. They do not need to be included on the "face of the permit." In fact, there were other instances where commenters suggested that something should be included in the "permit record." For a Title V operating permit that is being renewed for the third time, commenters should consider that many of these things may have been included in a previous Title V renewal's fact sheet, in the Title V permit applications, or in an application or engineering evaluation for an underlying NSR permit. The Title V fact sheet for a renewal does not go back and restate all justifications, determinations, or decisions that have been made in previous permitting actions. However, when commenters raise issues, the DAQ will provide this information in the response to comments document which will become part of the permit record for the current Title V permit.

The flare burns process vent gas (no sulfur content) and natural gas (limited to 20 grains per 100 cubic feet by fuel contract). Emissions of SO_2 were based on the maximum amount of sulfur in the natural gas and an assumed conversion of 100% to SO_2. Condition 4.2.4 requires monitoring and recordkeeping on a daily basis of the natural gas flow rate to the flare when VOCs are present in the flare header vent gas. This demonstrates compliance with the hourly and annual SO_2 emission limits.

Emission limits for ethylene glycol, glycol ethers, and isophorone were included in the Draft Title V Permit because they are still included in the underlying NSR permit condition, however, these emissions were only associated with the CELLOSIZE™ HEC process which also sent

emissions to the flare A221 and has since been shut down. These pollutants should no longer be present in the emissions from flare A221.

There are two different visible emission requirements applicable to the flare. The first one comes from 40 C.F.R. 63, Subparts A and PPP which allows no visible emissions (40 C.F.R. §63.11 (b)(4)), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. The second one comes from West Virginia's rule 45CSR6 which limits emissions to less than 20% opacity except for visible emissions during startup which must be less than 40% opacity for no more than 8 minutes. Streamlining these two requirements, the flare cannot have visible emissions except during a period not to exceed a total of 5 minutes during any 2 consecutive hours. During those 5 minutes, emissions cannot be 20% or greater unless during startup when emissions must be less than 40%.

40 C.F.R. 63, Subpart PPP only requires a one-time test of opacity (condition 4.3.7. (1)). Unless the US EPA modifies Subparts A and PPP, that is all that is required to demonstrate compliance with the visible emissions limit in 40 C.F.R. §63.11(b)(4). If visible emissions are observed at any time (except for periods not to exceed a total of 5 minutes during any 2 consecutive hours), this would be considered a deviation and would be reported in the facility's annual compliance certifications and semi-annual monitoring reports. The facility does not get a "free pass", as suggested by the commenters, just because they are not conducting a formal visible emissions observation. Any instances of visible emissions would need to be evaluated so the facility can certify compliance with the opacity limit and report any deviations.

Since Specialty Products is also subject to the opacity requirements under West Virginia's rule 45CSR6, the Draft Title V Permit also includes periodic monitoring of opacity and record keeping of the results of that monitoring. Given that Subpart PPP only requires a one-time test and the low hourly particulate matter emission limits of 0.03 lb/hr from the flare (condition 4.1.15), the DAQ determined that monthly visible emission observations were reasonable and were consistent with the monitoring required for many other facilities within the State. Again, just because monitoring is conducted monthly or quarterly, does not mean that the facility can ignore visible emissions which could occur during periods outside of the required monitoring. The limits apply at all times and the facility is responsible for reporting any deviations from their emission limits in their annual compliance certifications and semi-annual monitoring reports. Also, the visible emissions monitoring is just one method used to determine compliance with the flare.

Commenters stated that "the operating, monitoring and testing requirements for the flare, none of which - alone or in combination- can ensure compliance with the limits." Commenters, then discussed the monitoring separately and deemed each as inadequate. When looked at separately, commenters can assert that not enough is being done to demonstrate compliance. However, the flare is being monitored in several ways, such as:

(1) Monitoring, testing, record keeping, and reporting required under 40 C.F.R. 63, Subparts A and PPP;

(2) Continuous monitoring of the presence of a pilot flame with recordkeeping and reporting requirements;

(3) Monitoring and recordkeeping of the natural gas flow rate to the flare;

(4) Periodic visible emissions monitoring and record keeping;

(5) Maintenance records of the flare;

(6) Malfunction records of the flare; and

(7) Annual compliance certifications and semi-annual monitoring reports required under Title V.

All the monitoring, testing, record keeping, and reporting requirements should be considered together, as one comprehensive multiple pronged approach to demonstrating compliance, instead of breaking these up into separate requirements and deeming each one alone as inadequate.

Again, in EPA's order on Petition No. III-2023-16 for the Union Carbide Corporation Institute Facility's Title V permit, EPA described five factors permitting authorities may consider as a starting point in determining appropriate monitoring for a particular facility. These are: (1) variability of emissions from the unit in question; (2) likelihood of a violation of the requirements; (3) whether add-on controls are being used for the unit to meet the emission limit; (4) the type of monitoring, process, maintenance, or control equipment data already available for the emission limit; and (5) the type and frequency of the monitoring requirements for similar units at other facilities. In addition to the justification provided above, DAQ is also evaluating the monitoring using the five factors suggested by EPA.

(1) <u>The variability of emissions from the unit in question.</u>

The emissions from the flare are not variable. Condition 4.1.15 limits the annual VOC flow rate to the flare, condition 4.1.17 specifies the minimum net heating value for the gas stream in the flare gas header, and condition 4.2.4 specifies the minimum natural gas flow rate to the flare when VOCs are present in the flare header gas. According to the application for R13-0171E (R13-0171E was later superseded and replaced by R13-3404A without a change to the emission limits for Flare A221), emissions of CO, NO_x, PM_{10}, SO_2, and VOC were calculated based on the following emission factors:

Combustion by-product emissions generated by the Flare from burning the process vent gases were calculated using the following emission factors:

Pollutant	Emission Factor
CO [1]	0.37 lb/MMBtu
NO_X [1]	0.068 lb/MMBtu
PM_{10} [2]	2.49 lb/MMscf
SO_2 [3]	20 grains/100 ft^3
VOC [4]	0.02 x VOC mass loading

1 USEPA AP-42 emission factors (Chapter 13.5)
2 Based on conversion of AP-42 emission factor (Chapter 13.5):
40 µg/l = 2.49 lb/MMscf
3 Based on maximum amount of sulfur in fuel by contract and 100% conversion to SO_2
4 98% destruction efficiency of VOC loading

For VOC, the applicant used a maximum VOC mass loading of 338 lbs/hr and 625,294 pounds/yr (footnote 1 of condition 4.1.15). Emissions of EtO were also calculated based on the maximum loadings to the flare and control efficiency of the flare. Ethylene glycol, glycol ethers, and isophorone were emitted only from the CELLOSIZE™ HEC process which has since been shut down, so these pollutants should no longer be present in the emissions from flare A221.

(2) Likelihood of a violation of the requirements.

Emissions of CO, NO_x, PM, and PM_{10} are the products of combustion of header gas and based on the maximum header and natural gas flow rates, so there is not likely to be a violation of the emission limits. It should be noted that while emission limits for CO and NO_x were included, they were only included under the authority of 45CSR13 to provide a total of the emissions from the flare and limits for these pollutants were not required under any other regulatory requirements. For PM and PM_{10}, there are no ash forming compounds in the flare header gas or natural gas used as supplemental fuel. A small amount of soot could be produced as a by-product of combustion. From the United States Environmental Protection Agency's *AP-42: Compilation of Air Emission Factors for Stationary Sources*, Section 13.5 for Industrial Flares (February 2018), Table 13.5-1, Footnote d states that soot in concentration values are 40 µg/L from AP-42 for lightly smoking flares which is conservative considering the flare must be designed and operated with no visible emissions in accordance with 40 C.F.R. §63.11(b)(4) . Therefore, since there are no ash forming compounds in the flare header gas or supplemental fuel, particulate matter emissions resulting from combustion of materials are not expected.

Emissions of SO_2 were based on 100% conversion of sulfur to SO_2 emissions and a maximum sulfur content of 20 grains of sulfur per 100 ft^3 for pipeline quality

natural gas. Therefore, it is not likely there will be a violation of SO_2 emissions since emissions were calculated based on a maximum sulfur content of pipeline quality natural gas and 100% conversion to SO_2.

Since VOC and EtO emissions are based on maximum header loading and flare control efficiency, it is not likely there will be a violation if the flare is operated according to the requirements of 40 C.F.R. 63 Subpart PPP and the permittee is continuously monitoring the presence of either a pilot light or flare flame.

(3) Whether add-on controls are being used for the unit to meet the emission limit.

Emissions of CO, NO_x, PM, PM_{10}, and SO_2 are the products of combustion of the VOC sent to the flare header and the natural gas used by the flare. There are no add-on controls used to meet the emission limits of CO, NO_x, PM, PM_{10}, and SO_2.

A flare, designed to meet the requirements of 40 C.F.R. 63 Subparts A and PPP, is being used as an add-on control device to meet the emission limits for VOC and EtO.

(4) The type of monitoring, process, maintenance, or control equipment data already available for the emission limit.

The flare is being monitored in several ways, such as: 1) monitoring, testing, record keeping, and reporting required under 40 C.F.R. 63, Subparts A and PPP; 2) continuous monitoring of the presence of a pilot flame with recordkeeping and reporting requirements; (3) monitoring and recordkeeping of the natural gas flow rate to the flare; 4) periodic visible emissions monitoring and record keeping; 5) maintenance records of the flare; 6) malfunction records of the flare; and 7) annual compliance certifications and semi-annual monitoring reports required under Title V.

(5) The type and frequency of the monitoring requirements for similar units at other facilities.

Other facilities using a flare as a control device for VOCs and HAPs and permitted under minor NSR typically have requirements to monitor for the presence of a pilot flame. Also, even if they are not subject to an NSPS or MACT standard, requirements similar to those found in Subpart A of the NSPS or MACT regulations are also usually included. For facilities subject to an NSPS or MACT standard, the permit includes both the requirement to monitor for the presence of a pilot flame and the requirements specified under the applicable NSPS or MACT standard. The flare requirements included in the Title V permit for Specialty Products are not less stringent than can be found for similar units at other facilities.

Section 4.1.15 H_2S Citation

Commenters suggested that the Draft Title V permit appears to be missing an applicable SIP limit for hydrogen sulfide (H_2S) from 45CSR§10-5.1 (provided below) since Section 4.1.15 lists 45CSR§10-5.1 as being applicable to the flare, but does not provide this limit nor lists the limit as being applicable. The comment recommends that the DAQ must either add this limit to the permit's applicable requirements or explain why it is inapplicable to the flare.

> 45CSR§10-5.1. No person shall cause, suffer, allow or permit the combustion of any refinery process gas stream or any other process gas stream that contains hydrogen sulfide in a concentration greater than 50 grains per 100 cubic feet of gas except in the case of a person operating in compliance with an emission control and mitigation plan approved by the Director and U. S. EPA. In certain cases very small units may be considered exempt from this requirement if, in the opinion of the Director, compliance would be economically unreasonable and if the contribution of the unit to the surrounding air quality could be considered negligible.

The only source of sulfur to the flare is the natural gas combusted. Pipeline quality natural gas contains 20.0 grains or less of total sulfur per 100 standard cubic feet which is significantly less than the limit specified under 45CSR§10-5.1. The reference to 45CSR§10-5.1 first appeared in NSR permit R13-0171B for the flare and was therefore included in the citation for Draft Title V permit section 4.1.15. After reviewing the language contained in 45CSR§10-5.1, the vent stream combusted in the flare is not a refinery process gas stream and is not a process gas stream that contains hydrogen sulfide in a concentration greater than 50 grains per 100 cubic feet of gas, therefore this requirement should not be applied to the flare. As a result, the reference to 45CSR§10-5.1 in the citation for section 4.1.15 has been removed.

Section 4.1.22 should not contain qualifying language

A comment was received that section 4.1.22 should not include qualifying language. Section 4.1.22 states the following and the commenter was concerned about the underlined language:

> **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, <u>to the extent practicable</u>, install, maintain, and operate flare A221 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary. **[45CSR13, R13-3404, 5.1.7; 45CSR§13-5.11; 45CSR34; 40 C.F.R. §§63.6(e)(1) and (2)]**

The commenter pointed out that federal regulations for hazardous air pollutants (40 C.F.R. §63.6) do not include qualifying language like "to the extent practicable."

The DAQ agrees that this language is not included in 40 C.F.R. § 63.6 (e)(1). The language in Section 4.1.22 is actually boilerplate language included in minor NSR permits issued under 45CSR13. The DAQ will leave this boilerplate language from NSR permit R13-3404A as Section 4.1.22, but to avoid confusion, will delete the citations for "45CSR34 and 40 C.F.R. §§63.6 (e)(1) and (2)." The NSR boilerplate language does state in the last sentence that the permittee shall comply with any more stringent limits set forth by any Federal regulation, so for flare A221, the permittee will be required to comply with more stringent requirements set forth in 40 C.F.R. 63, Subparts A and PPP.

OTHER COMMENTS

Common Control for Facilities at the Institute Site

The DAQ has received comments and questions about the DAQ's issuance of Title V permits to separate business entities (e.g. Union Carbide Corporation (UCC), Altivia Services, LLC (Altivia), and Specialty Products US, LLC (Specialty Products)) at the Institute Facility and within each business entity into separate Title V Permits by process group. The commenters claimed that the DAQ should not accept different ownership as a deciding factor and claimed that each of these business entities is still within the fenceline of the Institute Facility, and several of them have connected purposes, functions, and products, so the DAQ should fully analyze the various factors that EPA has historically said are relevant to common control. Furthermore, commenters claimed that issuance of separate permits circumvent Title V permitting requirements and the more stringent MACT requirements for major sources of hazardous air pollutants (HAPs).

DAQ's rule 45CSR30 provides for the establishment of a comprehensive air quality permitting system consistent with the requirements of Title V of the Clean Air Act and 40 C.F.R Part 70. Section 2.26 of 45CSR30 and Section 70.2 of 40 C.F.R. 70 both define a "Major source" as:

1) Any stationary source (or any group of stationary sources that are located on one or more contiguous or adjacent properties); and

2) Are under common control of the same person (or persons under common control); and

3) Belong to a single major industrial grouping; and

4) Are a major source of hazardous air pollutants (10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of such hazardous air pollutants) or a major source of air pollutants (one hundred tons per year or more of any pollutant subject to regulation).

The definition sets forth criteria that must all be true for a facility to be classified as a major source under Title V. Although UCC, Altivia, and Specialty Products are contiguous and adjacent and belong to the same industrial grouping, they are not under common control of the same person as explained below.

When making the source determination for UCC, Altivia, and Specialty Products, the DAQ referred to EPA's source determination for *Meadowbrook* in which the Pennsylvania DEP requested that EPA review a document submitted on behalf of Meadowbrook Energy LLC concerning whether emissions from a biogas processing facility under development by Meadowbrook Energy LLC should be aggregated with an existing landfill owned by Keystone Sanitary Landfill, Inc. for Clean Air Act permitting purposes. Keystone Sanitary Landfill, Inc. would control its own landfill gas collection activities and deliver the untreated landfill gas to the demarcation point after which Meadowbrook Energy LLC would conduct all processing of the gas necessary to create renewable natural gas products for market sale. In *Meadowbrook*, EPA interpreted the term "control" for its Title V regulations to require more than the ability to merely influence, but on control over "operations relevant to air pollution, and specifically control over which operations that could affect the applicability of, or compliance with, air permitting requirements,"[1] such as Title V. The justification behind EPA's definition of control in *Meadowbrook* is that since EPA's regulations reference air pollution-emitting activities when defining what constitutes a single source, source determinations made in the context of Title V permitting programs and its requirements should pertain to the control and monitoring of air pollution emissions. Furthermore, "if the authority one entity has over another cannot actually affect the applicability of, or compliance with, relevant permitting requirements, then the entities cannot control what permit requirements are applicable to each other and whether another entity complies with its respective requirements."[1] EPA determined that when one entity does not have control over another's permitting requirements, "it is more logical for such entities to be treated as separate sources, rather than being grouped together artificially for permitting purposes."[1] EPA further clarified in *Meadowbrook* that "aggregating entities that cannot control decisions affecting applicability or compliance with permitting and other requirements would create practical difficulties and inequities. For Title V purposes, it may be impossible for the responsible official of one entity to accurately certify the completeness of a permit application for a permit modification (e.g., to incorporate requirements that are applicable to a new unit) that is entirely within the control of another entity, or to certify that the other entity has complied with existing permit requirements, as required by Title V."[1]

UCC and Specialty Products are on a site owned by Altivia and send wastewater to Altivia's wastewater treatment system and receive steam from Altivia's boilers. Also, UCC sells EtO to Specialty Products. Beyond these functions, the facilities do not have connected purposes, functions, or products. Because of the relationship between the facilities regarding the wastewater treatment system, the boilers, and supply of EtO, the DAQ also reviewed the EPA source determination for Ameresco and JCL (referred to as *Ameresco*). In this source determination, EPA provided an example of two separately owned manufacturing companies that operate independently with respect to all their emissions-related activities, except for a shared wastewater treatment plant over which they share control due to practical and economic convenience. While this is not exactly the same as Altivia's relationship with UCC and Specialty Products because Altivia is the sole owner and operator of the wastewater treatment system and boilers and just supplies these services to UCC and Specialty Products, it is similar enough to

[1] *Meadowbrook* – Letter from William L. Wehrum, Assistant Administrator, Office of Air and Radiation, U.S. Environmental Protection Agency, to the Honorable Patrick McDonnell, Secretary, Pennsylvania Department of Environmental Protection (April 30, 2018) https://www.epa.gov/sites/default/files/2018-05/documents/meadowbrook_2018.pdf

apply EPA's determination from *Ameresco* that in the case of the shared wastewater treatment system, "it would stretch the plain meaning of 'persons under common control', and the notion of a 'common sense notion of a plant,' to consider these two entities to be a single source due to one piece of shared equipment. Such an overbroad reading could result in inequitable outcomes. The potential inequities associated with this situation mirror the concerns addressed in the *Meadowbrook* Letter: one entity could be unfairly held accountable for, or otherwise impacted by, the actions of another entity that were entirely beyond the first entity's control."[2] This is also the case for Specialty Products purchasing EtO from UCC Institute in that because one entity purchases a material from another entity, they do not have control over that entity's permitting requirements and compliance with those requirements.

Based on the definitions of "control" in *Meadowbrook* and *Ameresco*, the DAQ concluded that UCC, Altivia, and Specialty Products do not have "control" over decisions that could affect air permitting obligations of each other and that they are separate business entities.

Furthermore, by issuing separate Title V permits to UCC, Altivia, and Specialty Products, there was no improper avoidance of the legal requirements to obtain a Title V operating permit because these facilities are considered Title V major sources and have Title V operating permits. Section 5.1 of 45CSR30 states that each Title V operating permit issued shall include all applicable requirements that apply to the source at the time of permit issuance. The DAQ has done this. It does not matter how many permits Altivia, UCC, or Specialty Products have, all applicable requirements have been included in the Title V permits. Issuing multiple Title V permits to one facility has been a practice used by West Virginia's DAQ since the first Title V permits were issued for the larger chemical facilities more than 20 years ago. These permits were divided by process groups and instead of issuing one large permit with hundreds of pages of requirements, it was more manageable to divide the facility into smaller Title V permits. This did not change the Title V applicability of the facility and it did not change the applicable requirements included within the Title V permits. In addition, dividing the process groups into separate Title V permits did not change any of the public notice requirements under Title V. In fact, by issuing separate Title V permits for process groups, the facility is subject to more public comment periods, and the public can focus on the specifics as relates to each process, not the entire complex facility as a whole. For each Title V permit, a Class I legal notice is published which begins the comment period; there is a mailing list that is free to join on WVDEP's website (https://apps.dep.wv.gov/ListServ/) which provides a copy of the notice; and all current Title V permits are included on DAQ's website with those currently out for public comment indicated. This is common practice as many large complex facilities are managed this way. EPA has reviewed these permits and has conducted Title V Program Evaluations of West Virginia's Title V Program over the years (last one being in 2021) and this has never been identified as an area of concern.

The DAQ does not agree that issuing separate Title V permits to UCC, Altivia, and Specialty Products circumvented the Title V permitting requirements, MACT standards, or major source

[2] *Ameresco* – Letter from Anna Marie Wood, Director, Air Quality Policy Division, United States Environmental Protection Agency, Research Triangle Park, to Ms. Gail Good, Director, Bureau of Air Management, Wisconsin Department of Natural Resources (October 16, 2018) https://www.epa.gov/sites/default/files/2018-10/documents/ameresco_jcl_letter.pdf

status. The definition of major source under Title V, includes the requirement that sources are under common control of the same person which is not the case for UCC, Altivia, and Specialty Products. Also, there is no circumvention of Title V permitting requirements or MACT standards. All three facilities are considered major sources for Title V and MACT, and the Title V permits include all the facilities' applicable air quality requirements, including those from MACT.

The DAQ used *Meadowbrook* and *Ameresco* because these recent determinations fit the scenario for the sources at the Institute Facility. It would be unreasonable for the responsible official of one entity to accurately certify the completeness of a permit application for a permit modification (e.g., to incorporate requirements that are applicable to a new unit) that is entirely within the control of another entity, or to certify that the other entity has complied with existing permit requirements, as required by Title V. The DAQ disagrees with commenters that the recent applicability determinations made by EPA in 2018 for *Meadowbrook* and *Ameresco* should not be considered. Commenters did not present relevant evidence to support their claim that these recent applicability determinations which specifically apply to Title V major source determinations are invalid. For Title V purposes, these facilities should not be considered under common control.

However, if the DAQ improperly granted the wish of the commenters and considered UCC, Altivia, and Specialty Products as one facility under common control and added all of their emissions together to determine Title V and MACT applicability, there would not be any additional applicable requirements for these facilities as everything they are subject to is already included in their individual Title V permits. Once a facility triggers major source applicability for Title V and MACT, they are subject to these requirements, that's it. It does not matter if a facility has 100 tpy of VOCs and 10 tpy of a single HAP or 1,000 tpy of VOCs and 100 tpy of a single HAP; it does not change their applicable requirements under Title V or the MACT standards because they are considered major for both. Title V and the MACT standards do not have different levels of requirements depending on the quantity of potential emissions, you are either subject or not subject. The Draft Title V permit renewal for Specialty Products has all of the applicable requirements and has not circumvented Title V and MACT. The same is true for the Title V operating permits for UCC and Altiva. Therefore, the arguments raised by commenters are moot because these sources are subject to both Title V and MACT standards and there has been no circumvention.

Collaborative Agreement

The DAQ worked with Specialty Products to reduce emissions of VOC and EtO through a unique[3] (being the only one, without a like or equal) site-specific state enforceable collaborative agreement, voluntarily entered into by Specialty Products and not otherwise addressed by current law or regulation, designed by the parties to specifically respond to local community comments. Specialty Products is currently in compliance with state and federal air regulations applicable to EtO. The collaborative agreement sets forth additional requirements that Specialty Products is not required by state and federal air regulations to implement, but has voluntarily agreed to do

[3] See Merriam-Webster Dictionary, Unique Definition & Meaning https://www.merriam-webster.com/dictionary/unique (last visited April 24, 2024).

so. This collaborative agreement was signed on March 25 2023, and requires the following actions for Specialty Products:

- In addition to its obligations to comply with the federal LDAR program, as set forth in 40 C.F.R. §63.1434(a), the facility shall be subject to the following State only requirements that shall apply to components on the EtO supply line upstream of the Reactors ("components in EtO service"):
    - No skip monitoring periods authorized under the federal LDAR rules.
    - Monitor components in EtO service based on the following frequency:

Component Type	Frequency	Weekly Visual	Action Threshold
Agitator	Monthly	Yes	10 ppm
Connector - NTM*	Annual		10 ppm
Connector - DTM**	Annual		10 ppm
Pump	Monthly	Yes	10 ppm
Relief	Monitored After Release		10 ppm
Valve - NTM*	Quarterly		10 ppm
Valve - DTM**	Annual		10 ppm

*NTM - Normal To Monitor
**DTM - Difficult To Monitor

    - Make an initial attempt at repair of components if monitoring indicates readings at or above the action threshold of 10 ppm. After the initial attempt at repair, the facility will conduct re-monitoring.
    - Keep records of any measurements at or above the action threshold including concentrations and repairs and/or repair attempts.

These enhanced LDAR requirements are not required by federal or state law and were entered into voluntarily consistent with discretionary authorities under state law, and as stated in the collaborative agreement, were not intended or designed for incorporation into the Facility's Clean Air Act Title V permit. As such, these enhanced LDAR requirements were not included in Specialty Products Title V operating permit.

- Reduce the facility's emission limitations, including EtO and VOCs, to reflect its current business plan and conduct and complete a study to determine the feasibility of engineering controls to further reduce EtO emissions from the facility. Specialty Products' feasibility study has determined that additional engineering controls could be used to further reduce EtO emissions from the facility. Particularly, the solids handling system Conveyor #1 (230L), Conveyor #2 (230M), Conveyor #3 (230N), and Blending (230L) are currently uncontrolled and vent to the atmosphere, but could be routed to the flare (221A). The study determined that the timeframe for completion would be 18-24 months upon initiation of the project.

- Continue working with the DAQ and the U.S. Environmental Protection Agency (EPA) by providing in-kind or other tangible resources relative to state and federal air agency research related to EtO to assist with the development of air quality related data collection, air quality modeling, development of fenceline EtO monitoring protocols and securing meteorological data related to such research.

The requirements of the collaborative agreement are currently not included in the Draft Title V permit because:

1) West Virginia DAQ and Specialty Products agreed that the enhanced LDAR requirements which are not required by a state rule or federal regulation would not be included in the Title V operating permit.

2) Reduction of the facility's EtO and VOC emissions have not occurred and requires a process change to reroute previously uncontrolled emissions to the flare. When final design of this project is completed, Specialty Products will be required to modify their NSR permit which will include new emission limits for the proposed project. Once the NSR requirements are approved, the Title V permit must be modified to include the new applicable requirements. As already discussed, Title V does not establish new emission or operating limitations. Emission and operating limitations are established through new source review permits, state rules, and federal regulations.

Although the collaborative agreement is a state-only agreement with the company, not required by state rules or federal regulations, and was not included in the Draft Title V permit for Specialty Products, the DAQ will address some of the comments received regarding the collaborative agreement.

1) <u>Specialty Products should not be allowed up to two years to reduce EtO emissions and should be required to reduce EtO emissions immediately or at least given a lower interim EtO limit until process changes are made.</u>

   As discussed above, Specialty Products is not required by state rules or federal regulations to further reduce EtO emission limitations. Specialty Products has agreed to, and implemented, a Leak Detection and Repair (LDAR) program under which they inspect fugitive components without the federally allowable skip periods and reduced the action thresholds for initial attempts at repairs from the federally allowable levels of 500 to 10,000 parts per million (ppm) (depending on fugitive component type) down to 10

ppm for all fugitive components. This has already reduced EtO emissions from the facility. They have also voluntarily agreed to route some previously uncontrolled emissions to their existing flare. According to the feasibility study, this will take some time to design and implement. The facility is currently on schedule to implement this change. The Title V program does not have the authority to impose an arbitrary emission limit on Specialty Products in the interim.

2) DAQ should ensure that the collaborative agreement reduced EtO emissions much lower than the EPA's acceptable cancer risk of one hundred in a million and the risk should be closer to one in a million.

   The EPA's acceptable cancer risk was not used to determine what conditions or reductions were included in the collaborative agreement. As discussed above, the collaborative agreement is voluntary and based upon EtO emission reductions the facility was willing to commit to implementing. Specialty Products is in compliance with state rules and federal regulations for EtO. The conditions of the collaborative agreement are above what the facility is required to do under their current applicable requirements. EPA has released their Ambient Air Toxics Trends Tool (https://www.epa.gov/outdoor-air-quality-data/ambient-air-toxics-trends-tool) which provides data from monitoring stations (including National Air Toxics Trends Stations (NATTS) reported by EPA) across the country. Annual averages for 2019, 2020, and 2021 for each monitoring station show there are no areas in the country, including rural areas such as Grayson Lake, KY, that have an EtO concentration that equates to below a 100 in a million risk.

3) How can DEP inspect the impacts and risks of this site suitable to fulfill their commitment to reduce EtO emissions as agreed upon in the collaborative agreement if they don't have the expertise to do the test methods.

   The test methods are developed and approved by the US EPA. In 2022, DAQ conducted an EtO monitoring project under an EPA approved Quality Assurance Project Plan (QAPP) using EPA's approved Method TO-15 (https://dep.wv.gov/key-issues/Documents/EtO/Final%20Report/Final%20Report%20Body%202-21-2023.pdf). The results showed that in several cases, Grayson Lake, KY (a recreational area with no known EtO sources) and Buffalo, WV (a rural area with no known EtO sources), had concentrations higher than those found on-site at Institute and North Charleston. EPA has recently approved Method 327 for EtO sampling. DAQ is working with two facilities to have them perform side by side fenceline monitoring in Institute and North Charleston, with six canisters each to evaluate consistency. DAQ has contacted industry, laboratories, and EPA, and at this time, DAQ has been unable to locate a lab that can perform Method 327.

Environmental Justice and Public Participation for Ethylene Oxide

West Virginia's DAQ has been proactive in public outreach events and informing the public of the revised risk factor of EtO, the modeled impacts to the affected community, the short term EtO monitoring project that was performed in 2022, the WV DHHR study of the actual EtO

related cancer rates and locations which show that there are no EtO related cancer clusters around the EtO emitting facilities in the Kanawha Valley and that Kanawha County is not in the top 10 of the 55 counties in WV per capita for any EtO related cancer.

The public outreach events include:

8/10/2021 - An in-person meeting with DEP, BPH, and elected officials at DEP in Kanawha City

9/23/2021 - A virtual community meeting with EPA and DAQ

3/26/2022 - An in-person meeting with WV DHHR, EPA, and DAQ at the Dunbar Recreation Center

8/18/2022 - An in-person meeting by WV DHHR, EPA, and DAQ in North Charleston at the Schoenbaum Center

12/10/2022 - An in-person meeting that included DAQ in Dunbar by request from the Institute/West Dunbar/Pinewood/Sub Area Planning Committee

1/9/2023 - An in-person meeting by DAQ to address questions from the public regarding the Union Carbide Corporation Institute's Title V renewal at West Virginia State University in Institute WV

1/10/2023 - A virtual public hearing to take comments from the public regarding the Union Carbide Corporation Institute's Title V renewal

3/2/2023 - An in-person meeting by DAQ on the results of the EtO monitoring project at West Virginia State University in Institute WV

3/11/2024 - An in-person meeting by DAQ to address questions from the public regarding the Specialty Products' Title V renewal at West Virginia State University in Institute WV

3/19/2024 - A virtual public hearing to take comments from the public regarding the Specialty Products' Title V renewal

5/20/2024 - An in-person meeting by DAQ to address questions from the public regarding the Union Carbide Corporation South Charleston's Title V renewal at the Schoenbaum Center in North Charleston

6/3/2024 - A virtual public hearing to take comments from the public regarding the Union Carbide Corporation South Charleston's Title V renewal

For the past couple of years, DAQ has been regularly attending the monthly Community Advisory Panel (CAP) meetings for the South Charleston and Western Kanawha Valley groups. The DAQ also accepted an invitation to join the Union Carbide West Virginia Operations CAP and attended its first meeting on March 15, 2023, as well as the Altivia CAP and attended its first meeting on June 27, 2024.

In addition, the DAQ has a dedicated EtO web page containing information related to outreach events, short term EtO monitoring results, a final report from the monitoring, a video explaining the risks and actual cancer rates found in the area, the collaborative agreement with Specialty Products, and written statements for the EtO emitting facilities in the Kanawha Valley that commit to going above and beyond what is required by state rules and federal regulations. The DAQ also has set up a dedicated EtO mailing list for people to stay informed of EtO events in the Kanawha Valley. The EtO webpage contains a link to sign-up for the EtO mailing list.

Cumulative Impacts

Commenters requested a cumulative impact analysis for all permit considerations at the Institute Facility which should include emissions of hazardous and toxic air pollutants from all units.

West Virginia DAQ's statewide air program requires that facilities obtain permits with emission limits for air pollutants that ensure compliance with state and federal emissions standards. Permitted emission limits are established so that no single facility is allowed to cause or contribute to a violation of the National Ambient Air Quality Standards (NAAQS). This approach also establishes a framework in which aggregate emissions from multiple facilities should not exceed NAAQS.

The NAAQS are set for pollutants considered harmful to public health and the environment. The Clean Air Act identifies two types of NAAQS. Primary standards provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

Cumulative impacts are the totality of exposures to combinations of chemical and non-chemical stressors and their effects on health, well-being, and the quality of life outcomes.

The Title V permit is an operating permit which includes all applicable air requirements that apply to the source at the time of permit issuance. The Title V operating permit does not establish new emission or operating limitations. Emission and operating limitations are established through new source review permits, state rules, and federal regulations. The DAQ did not review cumulative impacts as part of the review for this renewal.

Even though the DAQ did not review cumulative impacts for the Title V permit renewal, DAQ's Fenceline Monitoring Project did look for the presence of EtO in the Institute area, which would include emissions from Specialty Products, other business entities within the Institute Facility (including Altivia and Union Carbide Corporation), and background concentrations of EtO. Additionally, EPA's Air Toxics Screening Assessment (AirToxScreen) gives a snapshot of outdoor air quality with respect to emissions of all air toxics, not just EtO.

EPA Review and Cumulative Impacts

Commenters suggested that EPA may consider cumulative impacts to help prioritize and decide which Title V operating permits the Agency will review. EPA has reviewed the pre-Draft Title V permit renewal for Specialty Products, has been given the opportunity to review the Draft Title V permit renewal, and will be given the opportunity to review the Proposed Title V permit and response to comments document. EPA has been given ample opportunity for review of this Title V permit renewal.

Ethylene Oxide (EtO) Risk

The U.S. Environmental Protection Agency (EPA) conducted an assessment of air toxic emissions across the United States using data from 2014. In 2016, while the assessment was being conducted, the EPA made a finding related to EtO and reclassified it from a probable human carcinogen to a known human carcinogen and increased the inhalation cancer risk. The screening modeling assessment was completed and released by the EPA on August 22, 2018 in a report called the National Air Toxics Assessment (NATA). The NATA was a broad overview of air emissions across the country – commonly referred to as a screening tool – and was designed to identify areas that may need further investigation. The NATA identified four census tracts in West Virginia, all of which are nearby EtO-emitting facilities in Institute and South Charleston that warranted further review.

"EPA considers risk to be the chance of harmful effects to human health or to ecological systems resulting from exposure to an environmental stressor. A stressor is any physical, chemical, or biological entity that can induce an adverse effect in humans or ecosystems. Stressors may adversely affect specific natural resources or entire ecosystems, including plants and animals, as well as the environment with which they interact." (https://www.epa.gov/risk/about-risk-assessment#whatisrisk)

The EPA has established a generally acceptable threshold of 100 in one million lifetime cancer risk (https://19january2017snapshot.epa.gov/national-air-toxics-assessment/nata-frequent-questions_.html). The 100 in one million benchmark can be adjusted for smaller populations. For example, if there were a population of 10,000 residents, the benchmark would be 1 in 10,000. Meaning the risk would predict that over the course of 70 years, one individual would get cancer from that stressor. EPA's approach to estimating cancer risk is intended to be health-protective and, therefore, uses conservative assumptions. For example, EPA assumes that a person is exposed continuously over a lifetime (i.e., 24 hours per day, 7 days per week, 52 weeks per year, 70 years). This approach to risk assessment is extremely conservative as people travel into and out of these areas for a variety of reasons including going to work, school, their homes, etc.

The potentially elevated risk from the 2018 NATA is not due to new emission sources or increased emissions from permit holders, but rather to the EPA's finding that long-term exposure to EtO may be more harmful than previously thought. Reducing potential and actual emissions from the known sources of EtO will decrease exposure and therefore possible risk. The South Charleston and Institute locations are in Kanawha County, WV. A report updated June 9, 2022 by the WV Division Health and Human Resources (WVDHHR) found no elevated levels of EtO related cancers (breast, lymphoma, or leukemia) in Kanawha County. Kanawha County does not rank in the top 10 counties in WV per capita for any of the related cancers. Mapping the locations of people with EtO related cancers has not shown any clusters around the Institute or South Charleston areas. This report can be found at: https://oeps.wv.gov/cancer/Documents/Data/Ethylene_Oxide_in_Kanawha_County.pdf.

The DAQ received comments that since the cancer risk for the facilities in Institute and South Charleston are above 100 in one million, the DAQ should, through this Title V permitting process, set emission limits that are below the 100 in one million cancer risk. Since the Title V

permit only includes the facility's current applicable requirements and does not establish emission limitations, reductions of EtO emissions cannot be accomplished through the Title V permitting process.

The DAQ sent a letter to Cristina Fernandez, Director of the Air & Radiation Division for EPA Region III, on January 6, 2020 requesting that EPA expedite the technology review (required every eight years) for the federal regulations that pertain to EtO (40 C.F.R. 63, Subpart PPP) to reevaluate and update this regulation as well as to perform an additional health-based risk review using EPA's revised toxicity value of EtO. While the health-based risk review is not required after the initial review that is performed within eight years of the promulgation of the federal regulations, it is not specifically prohibited. The most recent update to this regulation was published in the federal register on March 27, 2014. The technology and health-based residual risk review with associated federal regulation revisions was proposed on December 10, 2024. The proposal will be published in the Federal Register by the end of December 2024. There will then be a 60 day comment period for the proposed changes. After review of the comments, EPA will finalize the revised regulation and Specialty Products will be subject to any changes to their applicable requirements on their effective dates.

Fenceline Monitoring

Comments were received suggesting that there should be continuous monitoring (24 hours a day for 7 days per week) for EtO at the fence line. The Title V renewal is an operating permit that contains the facility's current applicable requirements. There are currently no applicable requirements for continuous fenceline monitoring. The collaborative agreement between the DAQ and Specialty Products does require the facility to provide in-kind or other tangible resources relative to state or federal air agency research related to EtO to assist with the development of air quality related data collection, air quality modeling, development of fenceline EtO monitoring protocols, or securing meteorological data related to such research. However, at this time, the technology does not currently exist to continuously monitor EtO emissions at the extremely low concentrations expected.

One commenter also requested that if fenceline monitoring is required, it should include a site that does not have EtO emissions so a comparison can be made. As stated above, fenceline monitoring is not currently required by any state rule or federal regulation and therefore will not be included in the Title V permit renewal. However, the DAQ did conduct four monitoring events between January 25 and April 27, 2022 to determine the presence of EtO in and near the EtO emitting facilities. They placed seven canisters in and around the Institute and South Charleston Sites and also placed canisters in Guthrie and Buffalo, West Virginia, to obtain samples from areas not near any known EtO facilities. From DAQ's Final Monitoring Report:

> "As a result of monitoring, the DAQ determined that EtO was present in the atmosphere at all locations sampled. In some cases, the levels obtained at locations far removed from facilities that use EtO were higher than levels at the sites monitored in Institute, North Charleston, and South Charleston.
>
> It is important to note that the monitoring events performed for this study are not meant to be used to establish long term risk. Four snapshots in time cannot capture a

representative 70-year lifetime cancer risk. The purpose of this study was to determine the presence of EtO in the atmosphere."

Historic EtO Modeling

One commenter suggested that modeling of historic EtO emissions for the area should be required so that long term exposure impacts can be assessed. This is not required under Title V nor any state rule or federal regulation and will not be conducted as part of this Title V permit renewal.

CONCLUSION

In conclusion, the Title V operating permit includes all applicable requirements that apply to the source at the time of permit issuance. The DAQ has included all Specialty Products' applicable requirements in the Title V Permit. Additionally, DAQ has worked with West Virginia facilities and communities to reduce the potential health risks associated with EtO and will continue to do so in the future.