



Kessler, Joseph R &lt;joseph.r.kessler@wv.gov&gt;

## TransGas Public Meeting/Comment Extension

1 message

**Kessler, Joseph R** <joseph.r.kessler@wv.gov>

Thu, Feb 8, 2024 at 1:19 PM

To: Joseph R Kessler &lt;joseph.r.kessler@wv.gov&gt;

Bcc: bradgdavis71@gmail.com, biglaurel.director@gmail.com, ninamccoy@hotmail.com, elizabethcnawrocki@gmail.com, James Kotcon &lt;jkotcon@gmail.com&gt;, Laura M Crowder &lt;laura.m.crowder@wv.gov&gt;, Beverly D McKeone &lt;beverly.d.mckeone@wv.gov&gt;, Edward F Maguire &lt;edward.f.maguire@wv.gov&gt;, Terry A Fletcher &lt;terry.a.fletcher@wv.gov&gt;, Dennis O Stottlemeyer &lt;dennis.o.stottlemeyer@wv.gov&gt;, Autumn Crowe &lt;acrowe@wvivers.org&gt;, Heather Sprouse &lt;hsprouse@wvivers.org&gt;, Nicole D Ernest &lt;nicole.d.ernest@wv.gov&gt;, Patrick Ward &lt;peward@potesta.com&gt;, Adam Victor &lt;adam@tgds.com&gt;

**Transgas Development Systems, LLC****Ammonia Production Facility****Facility ID No. 059-00102****Application No. R13-3622**

Thank you for your email and submitting your concerns to the WVDEP's Division of Air Quality (DAQ) regarding permit application R13-3622. As noted in my previous e-mail on February 2, 2024, you are being notified that the DAQ has completed the planning process and will hold a virtual public meeting at 6:00 p.m. on Wednesday, February 21, 2024. DAQ staff members will provide a presentation and be available to answer questions before taking comments from the public. Instructions for asking questions and providing oral comments at the virtual public meeting are provided below in this e-mail. Additionally, the public comment period has been extended to 5:00 p.m. on Wednesday, February 28, 2024. A legal advertisement concerning this public meeting will be published in the *Williamson Daily News* on February 14, 2024 (this notice is attached).

Concerning the requests for a 60-day comment period extension, a determination has been made that there is no statutory basis for an additional 60 day comment period, and the extension granted is to facilitate any additional comments that may be generated by the public meeting process. Additionally, due to the small number of requests for a public meeting, the relative spread out nature of the commenters, and the potential for inclement weather, the DAQ has determined that holding a virtual public meeting is appropriate in this case.

Instructions for downloading additional information, including copies of the draft permit, application, and all other supporting materials relevant to the DAQ's preliminary evaluation of permit application R13-3622 is available at: <https://dep.wv.gov/daq/permitting/Pages/NSR-Permit-Applications.aspx>.

### **Public Meeting Instructions**

To participate in the virtual public meeting online or by telephone, registration is required by 5:00 p.m. on Wednesday, February 21, 2024. To register, please complete the registration form at: <https://forms.gle/3f7utFqPA5vkE5rU6>. To register to provide oral comments, please indicate "yes" you want to provide oral comments on the record when you register. A confirmation email will be sent with your responses when you register. A separate email with information on how to join the public meeting will be sent after registration closes at 5:00 p.m. on Wednesday, February 21, 2024. If you do not have internet access and want to register to participate via telephone, please contact Nicole Ernest at (304) 926-0499 x41256. Oral comments are limited to five (5) minutes. Video demonstrations and screen sharing by commenters is not permitted.

The purpose of the DAQ's permitting process is to make a preliminary determination of if the proposed permit will meet all state and federal air quality requirements. The purpose of the public review process is to accept public comments on air quality issues relevant to this determination. Only written comments received at the address noted below within the specified time frame, or comments presented orally at the public meeting, will be considered prior to final action on the permit. All such comments will become part of the public record.

Written comments must be received by **5:00 p.m. on Wednesday, February 28, 2024** in one of the following ways:

Email written comments (preferred method) to:

[joseph.r.kessler@wv.gov](mailto:joseph.r.kessler@wv.gov) with "TransGas R13-3622 Comments" in the subject line, or

Mail hard copy comments to:

Atten: Joe Kessler, WV Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304.

If you have any additional questions, please contact the engineer below or Nicole Ernest at (304) 926-0499 x41256 .

Thank You,

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**Joe Kessler, PE**

Engineer

West Virginia Division of Air Quality

601-57th St., SE

Charleston, WV 25304

Phone: (304) 926-0499 x41271

[Joseph.r.kessler@wv.gov](mailto:Joseph.r.kessler@wv.gov)



**TransGas Public Meeting Notice.pdf**

76K

## **DAQ to Hold Virtual Public Meeting and Extend Public Comment Period**

The West Virginia Department of Environmental Protection's Division of Air Quality (DAQ) will hold a virtual public meeting on Wednesday, February 21, 2024, to provide information and receive comments regarding TransGas Development System, LLC's air quality permit application R13-3622. TransGas Development Systems, LLC's Wharncliffe facility has proposed to build an Ammonia Production Facility located off of Right Fork Ben's Creek Road near Wharncliffe, Mingo County, WV, at latitude 37.61577 and longitude -81.92736.

The DAQ will hold the public meeting virtually at 6:00 p.m. on Wednesday, February 21, 2024. Instructions for asking questions and providing oral comments at the virtual public meeting are provided below. DAQ staff members will be available to provide a presentation and answer questions before taking comments from the public. The public comment period has been extended to 5:00 p.m. on Wednesday, February 28, 2024.

To participate online or by telephone, registration is required by 5:00 p.m. on Wednesday, February 21, 2024. To register, please complete the registration form at: <https://forms.gle/3f7utFqPA5vkE5rU6>. To register to provide oral comments, please indicate "yes" you want to provide oral comments on the record when you register. A confirmation email will be sent with your responses when you register. A separate email with information on how to join the public meeting will be sent after registration closes at 5:00 p.m. on Wednesday, February 21, 2024. If you do not have internet access and want to register to participate via telephone, please contact Nicole Ernest at (304) 926-0499 x41256. Oral comments are limited to five (5) minutes. Video demonstrations and screen sharing by commenters is not permitted.

The purpose of the DAQ's permitting process is to make a preliminary determination of if the proposed permit will meet all state and federal requirements. The purpose of the public review process is to accept public comments on air quality issues relevant to this determination. Only written comments received at the address noted below within the specified time frame, or comments presented orally at the public meeting, will be considered prior to final action on the permit. All such comments will become part of the public record.

**Written comments must be received by 5:00 p.m. on Wednesday, February 28, 2024:**

- Preferred Method: Email written comments to [Joseph.R.Kessler@WV.gov](mailto:Joseph.R.Kessler@WV.gov) with "TransGas R13-3622 Comments" in the subject line, or
- Mail hard copy comments to Atten: Joe Kessler, WV Department of Environmental Protection, Division of Air Quality, 601 57<sup>th</sup> Street, SE, Charleston, WV 25304.

Instructions for downloading additional information, including copies of the draft permit, application, and all other supporting materials relevant to the DAQ's preliminary evaluation is available at: <https://dep.wv.gov/daq/permitting/Pages/NSR-Permit-Applications.aspx>.



Kessler, Joseph R <joseph.r.kessler@wv.gov>

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## Comments on Adams Fork Ammonia facility

1 message

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**James Kotcon** <jkotcon@gmail.com>

Fri, Feb 2, 2024 at 2:53 PM

To: Joseph.r.kessler@wv.gov, Laura.M.Crowder@wv.gov

See attached comment letter.

James Kotcon

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 **SC comments on Adams Fork Ammonia-2-1-24.docx**  
138K



**SIERRA  
CLUB**

**Sierra Club**  
**West Virginia Chapter**  
P.O. Box 4142  
Morgantown, WV 26504

Feb. 1, 2024

Joseph Kessler  
WVDEP – Division of Air Quality  
601 57<sup>th</sup> St., SE  
Charleston, WV 25304  
Via e-mail to: [Joseph.r.kessler@wv.gov](mailto:Joseph.r.kessler@wv.gov)

Re: Comments on Draft Permit R13-3622, TransGas Development Systems, LLC ammonia production facility, Mingo County, WV.

Dear Mr. Kessler:

Please accept the following comments on behalf of the WV Chapter of Sierra Club, and our approximately 2600 members.

**1) We object to the decision by WV-DAQ to reject our Jan. 8, 2024 request to extend the comment period for this permit.** Because this is a relatively new type of project for West Virginia, citizens need time to understand the technologies to be used. Contrary to earlier press reports from Adams Fork Energy, we learned from US-DOE this week that this project is **NOT** currently being considered for funding through the ARCH2 hydrogen hub program. As such, their earlier assurances of community benefits and aligning with the White House’s Justice40 Initiative seem unlikely to be met. Likewise, opportunities for public engagement through a comprehensive NEPA review may not apply. Citizens are now left with a worst-case scenario of needing to comment on technical permits without a comprehensive assessment of all site impacts and without adequate opportunities for input or meaningful involvement in a potentially precedent-setting permit.

**2) We are concerned about the inappropriate segmentation of the air emissions from facilities related to this permit.** The application (page 20, 21, and elsewhere) notes that “methane supply”, “carbon sequestration” and “ammonia to shipping” are “by others”. The ammonia units at this facility cannot operate without a methane supply or ammonia shipping. Without including Potential To Emit from those facilities, the determination that this facility qualifies as a “Minor Source” is potentially incorrect. An analysis as a Major Source would require a more detailed BACT analysis and improved pollution controls. **We recommend that the draft permit be withdrawn until a complete analysis of all air emissions from the site can be compiled and circulated for public comment.**

**3) We are also concerned about potential emissions of greenhouse gases, which are not regulated by the proposed air permit.** If the facility is not part of ARCH2, it is not clear that

Carbon Capture and Sequestration (CCS) will be installed, or whether it will be installed prior to the facility beginning operation. We note that the application (Attachment C) proposes that operations would commence in early 2025, clearly not enough time to permit and install CCS facilities. In spite of numerous claims of “clean ammonia” by Adams Fork, the application (Attachment D) does not identify UIC injection wells (except for the nebulous notation on page 20 “Carbon Sequestration (by others)) or the relevant rules (467-CSR-13). Given the enormous volumes of greenhouse gases produced from a facility this size (estimated at over 2.8 million tons of carbon dioxide per year, plus an undetermined amount of methane and potentially other greenhouse gases), **we oppose issuance of the permit if it does not require control of those greenhouse gases.**

**4)** Neither the permit nor the Engineering Evaluation clearly identify the discharge point for the 2.8 million tons per year of carbon dioxide. Given that carbon dioxide is an asphyxiant at high concentrations, **the permit should at least specify discharge points (stack height, etc.) and monitoring requirements to avoid human health effects for on-site workers and visitors.**

**5)** Ammonia storage and shipping procedures are unclear, as one section of the Engineering Evaluation suggests the ammonia will be trucked, while another indicates it is piped. The Engineering Evaluation identifies a 22,500-gallon storage tank but does not clearly calculate any fugitive ammonia emissions. **The permit should assume the maximum Potential To Emit and estimate emissions from storage and trucking.**

**6)** The process description indicates that sulfur from the natural gas is converted to hydrogen sulfide and absorbed in a sulfur absorber”. However, there does not appear to be any indication of where the hydrogen sulfide goes after absorption, or the efficiency of the hydrogen sulfide absorber. What proportion of the hydrogen sulfide escapes the absorber? **We recommend that the permit be revised to include emissions limits for hydrogen sulfide for both the operations phase as well as during start-ups and shutdowns.**

**7)** According to the Engineering Evaluation, the emissions of HAPs was based on AP-42 estimates. Fugitive emissions of HAPs were estimated as “0.00”, however, it is unclear why no fugitive emissions are expected. There are also no estimates of fugitive emissions from either ammonia or hydrogen. The assumption of no leaks appears to be wildly optimistic. Furthermore, there do not appear to be any monitoring requirements for HAPs, ammonia, or hydrogen. At a minimum, **we recommend that the permit include appropriate monitoring requirements to validate the assumptions of no leaks.**

**8)** Ammonia is quite noxious, and both ammonia and hydrogen is potentially explosive, thus, permit limits are essential. The draft permit does not even establish enforceable limits for odors, other than the vague and requirement to keep records of odor complaints. **We recommend that explicit emissions limits for ammonia and hydrogen be established.**

**9)** The use of AP-42 emissions factors likely underestimates the true emissions rates. AP-42 emissions factors are an average, and by definition, do not estimate the maximum Potential To Emit. This factor alone may be sufficient to cause the Adams Fork facility to be determined as a major source. **We recommend that the emissions be estimated as a worst case scenario.**

**10)** The permit does not appear to include any provisions for control of fugitive particulate emissions from the facility. There do not appear to be any requirements for either paved road, or routine dust suppression. We expect that truck traffic and equipment deliveries may result in significant emissions, and **we recommend that the permit address fugitive dust from the facility.**

**11)** The segmentation of the ammonia production from methane, carbon capture, ammonia transport, water treatment facilities and others suggests the potential for additional pollution reductions in the ammonia facilities may be appropriate. Until such time as a complete analysis of all emissions from the facility is available, **we recommend that the permit be subject to re-openers, with appropriate public review and comment, to incorporate additional pollution controls and emissions limits.**

Thank you for the opportunity to provide these comments.

Sincerely,

A handwritten signature in blue ink that reads "James Kotcon".

James Kotcon  
Conservation Chair  
WV Chapter of Sierra Club  
[jkotcon@gmail.com](mailto:jkotcon@gmail.com)  
304-594-3322 (cell)



Kessler, Joseph R <joseph.r.kessler@wv.gov>

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## TransGas R13-3622 Comment Period Extension

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**Kessler, Joseph R** <joseph.r.kessler@wv.gov>

Fri, Feb 2, 2024 at 2:57 PM

To: Joseph R Kessler <joseph.r.kessler@wv.gov>

Bcc: bradgdavis71@gmail.com, biglaurel.director@gmail.com, ninamccoy@hotmail.com, elizabethcnawrocki@gmail.com, James Kotcon <jkotcon@gmail.com>, Laura M Crowder <laura.m.crowder@wv.gov>, Beverly D McKeone <beverly.d.mckeone@wv.gov>, Edward F Maguire <edward.f.maguire@wv.gov>, Terry A Fletcher <terry.a.fletcher@wv.gov>, Dennis O Stottleyer <dennis.o.stottleyer@wv.gov>, Autumn Crowe <acrowe@wvdrivers.org>, Heather Sprouse <hsprouse@wvdrivers.org>

Thank you for your email and submitting your concerns to the WVDEP's Division of Air Quality (DAQ) regarding permit application R13-3622.

Based on the multiple requests for a public meeting on the application, the DAQ will be holding a public meeting and is therefore extending the current comment period until seven (7) days AFTER the meeting.

At this time, the DAQ is working through the planning process for the public meeting, and a final date has not yet been selected. However, upon completion of the planning process, you will receive a separate email with all the relevant information concerning the public meeting no less than one (1) week prior to the date selected.

A required legal advertisement with information on the public meeting will also be placed in the *Williamson Daily News* and sent out via the WVDEP's public notice email list. The DAQ encourages to citizens to register for the email list to stay informed of agency actions in their county and you can do so here:

<https://apps.dep.wv.gov/listserv/?window=archive&listID=1>

Please note that written comments can be submitted to the agency at any point during the comment period.

If you have any additional questions, please do not hesitate to contact me or Terry Fletcher at (304) 926-0499 x49720.

Thank You,

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**Joe Kessler, PE**

Engineer

West Virginia Division of Air Quality

601-57th St., SE

Charleston, WV 25304

Phone: (304) 926-0499 x41271

[Joseph.r.kessler@wv.gov](mailto:Joseph.r.kessler@wv.gov)





Kessler, Joseph R &lt;joseph.r.kessler@wv.gov&gt;

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**Fwd: Request for Extension**

1 message

**Crowder, Laura M** <laura.m.crowder@wv.gov>

Wed, Jan 31, 2024 at 1:27 PM

To: Beverly D McKeone &lt;beverly.d.mckeone@wv.gov&gt;, Joseph R Kessler &lt;Joseph.R.Kessler@wv.gov&gt;

----- Forwarded message -----

From: **Brad Davis** <bradgdavis71@gmail.com>

Date: Wed, Jan 31, 2024 at 11:54 AM

Subject: Request for Extension

To: &lt;LAURA.M.CROWDER@wv.gov&gt;

Laura,

I am a concerned citizen currently living in McDowell County, but a native of Mingo County . I am writing to request a 60 day extension to the comment deadline for permit application **R13-3622** regarding the construction of an ammonia production facility in Mingo County, near Wharncliff.

I am concerned about the health impacts from air pollution and the unknown impacts of increasing the use of fracked gas in this region. Our people already have suffered greatly from the affects of pollution stemming from other forms of environmental degradation. We can't handle any more.

I request this 60 day extension of the comment deadline so I can fully prepare my comments. Thank you in advance for granting this request.

Sincerely,

--

Rev. Bradley G. Davis  
Welch Charge of the United Methodist Church  
[125 Virginia Avenue](#)  
[Welch, WV 24801](#)  
304-784-3808

***Do Justice, Love Mercy, Walk Humbly***



Kessler, Joseph R &lt;joseph.r.kessler@wv.gov&gt;

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**Fwd: Request for extension for comment for R13-3622**

1 message

**Crowder, Laura M** <laura.m.crowder@wv.gov>

Tue, Jan 30, 2024 at 10:24 AM

To: Beverly D McKeone &lt;beverly.d.mckeone@wv.gov&gt;, Joseph R Kessler &lt;Joseph.R.Kessler@wv.gov&gt;

**Laura M. Crowder**

Director

WV Division of Air Quality

601 57th Street, SE

Charleston, WV 25304

Phone: 304-414-1253

Email: [Laura.M.Crowder@wv.gov](mailto:Laura.M.Crowder@wv.gov)

----- Forwarded message -----

From: **Nina McCoy** <ninamccoy@hotmail.com>

Date: Mon, Jan 29, 2024 at 5:18 PM

Subject: Request for extension for comment for R13-3622

To: [LAURA.M.CROWDER@WV.GOV](mailto:LAURA.M.CROWDER@WV.GOV) <[LAURA.M.CROWDER@wv.gov](mailto:LAURA.M.CROWDER@wv.gov)>

CC: Nina McCoy &lt;ninamccoy5@gmail.com&gt;

**To whom it may concern:**

I am a concerned citizen and former Biology teacher from Inez, Kentucky in Martin County. I am writing to request a 60-day extension to the comment deadline for permit application [R13-3622](#) regarding the construction of an ammonia production facility in Mingo County, near Wharnclyff.

Martin County is one of the Kentucky county that borders Mingo and I am concerned about the health impacts from air pollution and the unknown risks of increasing the use of fracked gas in my region.

I request this 60-day extension of the comment deadline so I can fully prepare my comments.

I request DAQ host an in-person information session and hearing in the community so we can learn and make more informed comments.

Thank you in advance for granting this request.

Sincerely,

Nina McCoy

[245 Cassady Ave.](#)

P.O. Box 922

Inez, KY 41224



Kessler, Joseph R <joseph.r.kessler@wv.gov>

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## Comment Period Extension Request

1 message

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**Elizabeth Nawrocki** <elizabethcnawrocki@gmail.com>

Fri, Jan 26, 2024 at 11:49 AM

To: Laure.m.crowder@wv.gov

Cc: "joseph.r.kessler@wv.gov" <joseph.r.kessler@wv.gov>

Hello Director Crowder,

I am a resident of Mingo County and a citizen concerned about the potential ammonia production facility and its effects on our community. I have attached a letter requesting an extension of the comment period for the permit so that my community and I can receive more information regarding the project.

Thank you and peace,  
Elizabeth Nawrocki

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 **Adams Fork Comment Extension Request.pdf**  
36K

Laura Crowder, Director  
Division of Air Quality, WVDEP  
601 57th Street, SE Charleston, WV 25304-234

Dear Director Crowder,

I am reaching out in regards to TransGas' proposed ammonia production facility in Mingo County. The WVDEP recently released the draft minor source permit (Permit R13-3622) for this project and opened a thirty day comment period. I request that the WVDEP extend this comment period by sixty days and hold a public hearing to allow us to become more informed on the facility's air emissions and to better comment on the draft permit. It would also be helpful for WVDEP to host an in-person meeting in the community so that residents can ask questions to WVDEP staff and to the applicant so we can more fully know what the facility is and how it would affect our lives and our land.

I am concerned about the facility and its method of ammonia production, and I am seeking more information including with consultants so that I can make more informed comments on the facility's air emissions. The community would benefit from a comment extension so that more education can be provided and more informed comments can be submitted. As it stands, with little knowledge and little time, our community remains mostly in the dark with regards to these plans.

While our community is no stranger to mining and gas drilling, this project represents something few people here are familiar with. Ammonia production and carbon capture and storage are new activities for our community and it would be to our benefit if the WVDEP would provide an informational session to learn more about what is proposed and provide additional time for us to weigh in. I have a lot of questions about TransGas' plans and I imagine my neighbors do as well. I also believe that we would benefit from learning about the project first hand since most people here do not know this is happening at all.

I am not aware of TransGas' record as an operator so providing an opportunity for company representatives to talk to local residents would be very helpful. I also know that this project recently lost one of its supporters, CNX, so I have questions about the viability of this project which could be addressed by learning more about their background and their plans.

Please consider our request for an additional sixty days in the comment period and for an in-person meeting. If the WVDEP does grant us a public meeting, I would be glad to assist in finding a local venue for the meeting.

Thank you for your consideration,

Elizabeth Nawrocki  
Big Laurel Learning Center  
PO Box 266  
Kermit, WV 25674



Kessler, Joseph R <joseph.r.kessler@wv.gov>

# Fwd: Extension Request for Permit application R13-3622

1 message

Crowder, Laura M <laura.m.crowder@wv.gov>

Tue, Jan 30, 2024 at 2:00 PM

To: Beverly D McKeone <beverly.d.mckeone@wv.gov>, Joseph R Kessler <Joseph.R.Kessler@wv.gov>

FYI

----- Forwarded message -----

From: **Big Laurel** <biglaurel.director@gmail.com>

Date: Tue, Jan 30, 2024 at 1:32 PM

Subject: Extension Request for Permit application R13-3622

To: <LAURA.M.CROWDER@wv.gov>

Dear Laura,

I am a concerned citizen from the Tug Fork Watershed of Mingo County, WV. I am writing to request a 60 day extension to the comment deadline for permit application R13-3622 regarding the construction of an ammonia production facility in Mingo County, near Wharncliff.

I am an educator and the director of an environmental nonprofit. I am concerned about the health impacts from air pollution and the unknown impacts of increasing the use of fracked gas in this region.

I request this 60 day extension of the comment deadline so I can fully prepare my comments.

In addition, I request DAQ hold a public hearing to answer questions from the community, and host an information session in the community so that we can learn and make more informed comments.

Thank you in advance for granting this request.

Sincerely,  
Grace Williams

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**Grace Williams** Director | Big Laurel Learning Center

**phone:** (304)-393-4103

**address:** PO Box 266, Kermit, WV 25674

**web:** www.biglaurel.org

**email:** biglaurel.director@gmail.com





Kessler, Joseph R &lt;joseph.r.kessler@wv.gov&gt;

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**Re: R13-3622 comment extension**

1 message

**Kessler, Joseph R** <joseph.r.kessler@wv.gov>

Thu, Feb 1, 2024 at 11:58 AM

To: Heather Sprouse &lt;hsprouse@wvivers.org&gt;

Cc: "LAURA.M.CROWDER@WV.GOV" &lt;LAURA.M.CROWDER@wv.gov&gt;, Autumn Crowe &lt;acrowe@wvivers.org&gt;, Beverly D McKeone &lt;beverly.d.mckeone@wv.gov&gt;

Heather, I apologize for the delay in responding, I have been out of the office for several days. We have received several requests for a comment period extension, and these requests are currently under consideration by the Director. As of this writing, however, the comment period remains scheduled to end at 5 PM on February 2. At the conclusion of the statutory public comment period, with consideration of all comments received, the Director will thereafter make a final decision if an extension is warranted. All those who requested an extension will be notified at that time.

Thank you,

Joe Kessler

On Wednesday, January 31, 2024, Heather Sprouse &lt;hsprouse@wvivers.org&gt; wrote:

Hello Mr. Kessler,

I've been working with members of our coalition who have submitted requests to your office asking regarding a comment deadline extension for permit R13-3622. They're wondering if more time will be granted for them to draft and submit their comments.

Can you please confirm for me?

Thank you,

Heather Sprouse

**Heather Sprouse**

Ohio River Coordinator

West Virginia Rivers Coalition

(she/they)

(304) 539-3900

[WVRivers.org](http://WVRivers.org) | [Sign up for E-news](#)

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**Joe Kessler, PE**

Engineer

West Virginia Division of Air Quality

601-57th St., SE

Charleston, WV 25304

Phone: (304) 926-0499 x41271

[Joseph.r.kessler@wv.gov](mailto:Joseph.r.kessler@wv.gov)



Kessler, Joseph R &lt;joseph.r.kessler@wv.gov&gt;

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**Re: Request for extension of comment period for R13-3622**

1 message

**Kessler, Joseph R** <joseph.r.kessler@wv.gov>

Thu, Jan 11, 2024 at 7:16 AM

To: James Kotcon &lt;jkotcon@gmail.com&gt;

Cc: Laura M Crowder &lt;laura.m.crowder@wv.gov&gt;, Beverly D McKeone &lt;beverly.d.mckeone@wv.gov&gt;

Mr. Kotcon, please see the attached response to your request for an extension of the open comment period concerning:

**Transgas Development Systems, LLC****Ammonia Production Facility****Facility ID No. 059-00102****Application No. R13-3622**

Thank You,

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**Joe Kessler, PE**

Engineer

West Virginia Division of Air Quality

601-57th St., SE

Charleston, WV 25304

Phone: (304) 926-0499 x41271

[Joseph.r.kessler@wv.gov](mailto:joseph.r.kessler@wv.gov)

On Sat, Jan 6, 2024 at 7:48 PM James Kotcon <jkotcon@gmail.com> wrote:

See attached letter.

Jim Kotcon

**Response to SC comments Signed.pdf**

164K



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**west virginia** department of environmental protection

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Division of Air Quality  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
Phone: (304) 926-0475

Harold D. Ward, Cabinet Secretary  
[dep.wv.gov](http://dep.wv.gov)

January 10, 2024

Mr. Jim Kotcon, Chair  
West Virginia Chapter of the Sierra Club  
PO Box 4142  
Morgantown, WV 26504

**RE: Response to Extension Request**  
TransGas Development Systems, LLC  
Ammonia Production Facility  
Permit No. R13-3622  
Plant ID No. 059-00102

Dear Mr. Kotcon:

On January 6, 2024, the West Virginia Division of Air Quality (DAQ) received an e-mailed letter from you requesting an extension of the public comment period concerning TransGas Development Systems, LLC's (TransGas') proposed Ammonia Production Facility located in Mingo County, WV. The public notice for this permitting action was scheduled to run on January 3, 2024 and the open comment period will run through 5:00PM on February 2, 2024. After a careful consideration of your request, and an examination of the specifics of your request, the DAQ has made the determination that an extension of the February 2, 2024 date is not warranted based on the reasons you provide. The basis for this determination is given below.

The statutory authority governing the review and determination of a permit application concerning a minor source of air pollution is given under WV Legislative Rule 45CSR13. There is no support in the statutory language of 45CSR13 (or under the Air Pollution Control Act - West Virginia Code §22-5-1) for an extension of a public comment period for considerations that are beyond either the primary air impacts of the source in question, or beyond the scope of the applicable air quality rules and regulations. In this case, your provided reasons for requesting an extension are beyond both of these thresholds.

While the issues you raise are important (CCS, ammonia pipelines, sources of methane), these are all beyond the scope of the air quality permitting process (see specifically page 2 of the Engineering Evaluation for a discussion on possible use of CCS) and, therefore, additional time to study them would not provide any benefit under this permitting process.

**Promoting a healthy environment.**



Additionally, it is important to note, that while the potential issuance of an air quality permit for the proposed facility would fulfill the permitting obligations under 45CSR13 and §22-5-1, the issuance of this permit would not trump any other applicable requirements or agreements (such as the ARCH2 requirements for funding) relevant to the facility. Any violation of those requirements or agreements would be subject to the relevant authority of the bodies involved in those agreements.

Should you have any questions concerning the above, please contact Permit Engineer Joe Kessler at (304) 926-0499 x41271.

Sincerely,

Laura M. Crowder

Digitally signed by: Laura M. Crowder  
DN: CN = Laura M. Crowder email = Laura.M.  
Crowder@wv.gov C = US O = WV Department of  
Environmental Protection OU = Division of Air Quality  
Date: 2024.01.10 17:18:52 -0500

Laura M. Crowder  
Director

Ad Number 165831

**Affidavit of Legal Publication and Posting**

**STATE OF WEST VIRGINIA**

**COUNTY OF Mingo, TO-WIT**

I Linda Smith, Classified Advertising

Representative of the The Williamson Daily News, a newspaper published in the county of Mingo, West Virginia, hereby certify that the annexed publication was inserted in said newspaper \_\_\_\_\_

The cost of publishing said annexed advertisement as aforesaid was \$ 64.00

Commencing On: 01/03/2024

Ending On: 01/03/2024

Given under my hand this day 01/03/2024

Sworn to and subscribed before me 01/03/2024 at Williamson, Mingo County, West Virginia

Linda Smith

Notary Public of, in and for Mingo County, West Virginia

MY COMMISSION EXPIRES: Jan. 3, 2028

Lee Ann Welch



**AIR QUALITY  
PERMIT NOTICE**

**Notice of Open  
Comment Period**

On June 30, 2023, TransGas Development Systems, LLC applied to the WV Department of Environmental Protection, Division of Air Quality (DAQ) for a construction permit to build an Ammonia Production Facility located off of Right Fork Ben's Creek Road near Wharmcliffe, Mingo County, WV, at latitude 37.61577 and longitude 81.92736. A preliminary evaluation has determined that all State and Federal air quality requirements will be met by the proposed construction. The DAQ is providing notice to the public of an open comment period for Permit Application RL3 3622.

The following potential emissions will be authorized by this permit action: Carbon Monoxide, 13.39 tons per year (TPY); Oxides of Nitrogen, 52.52 TPY; Particulate Matter less than 2.5 microns, 0.40; Particulate Matter less than 10 microns, 0.40 TPY; Particulate Matter, 0.40 TPY; Sulfur Dioxide, 0.18 TPY; Volatile Organic Compounds, 0.55 TPY; and Hazardous Air Pollutants, 0.27 TPY.

Written comments or requests for a public meeting must be received by the DAQ before 5:00 p.m. on Friday, February 2, 2024. A public meeting may be held if the Director of the DAQ determines that significant public interest has been expressed, in writing, or when the Director deems it appropriate.

The purpose of the DAQ's permitting process is to make a preliminary determination if the proposed construction will meet all State and Federal air quality requirements. The purpose of the public review process is to accept public comments on air quality issues relevant to this determination. Only written comments received at the address noted below within the specified time frame, or comments accepted at

**Acc.Id:** 69164  
**Name:** AIR QUALITY--WV DEP  
**Phone:** 304-926-0499  
**Address:** 601 57TH ST SE  
**City:** CHARLESTON  
**State:** WV  
**Postcode:** 25304  
**Class:** 9010 Legal Notices  
**Edition:** WDN  
**Start:** 01/03/2024  
**Stop:** 01/03/2024  
**Issues:** 1  
**Units:** 129.0  
**Order ID:** HC 165831  
**TFN:** C  
**TFN cycle:**  
**Rep:** LSMITH23  
**Status:** CF  
**Source:** EM  
**Paytype:** BI  
**Rate:** LG  
**Cost EXC:** 64.00  
**GST:**  
**Tax:** 0.00  
**Total Charge:** 64.00  
**Printed on:** 12/21/2023 14:03:48  
**Printed by:** LSMITH23

Comments presented orally at a scheduled public meeting will be considered prior to final action on the permit. All such comments will become part of the public record.

Joe Kessler, PE  
Engineer  
WV Department of  
Environmental  
Protection  
Division of Air Quality  
601 57th Street, SE  
Charleston, WV 25304  
Telephone:  
304/926-0499,  
ext. 41271  
Email:  
**joseph.r.kessler  
@wv.gov**

Additional information, including copies of the draft permit, application, and all other supporting materials relevant to the permit decision may be obtained by contacting the engineer listed above. The draft permit and engineering evaluation may also be downloaded at:

**<https://dep.wv.gov/daq/permitting/Pages/NSR-Permit-Applications.aspx>**

**LH-165831  
01-03;2024**





Kessler, Joseph R <joseph.r.kessler@wv.gov>

---

## Request for extension of comment period for R13-3622

---

**James Kotcon** <jkotcon@gmail.com>  
To: Laure.m.crowder@wv.gov  
Cc: Joseph.R.Kessler@wv.gov

Sat, Jan 6, 2024 at 7:48 PM

See attached letter.

Jim Kotcon

---

 **SC Request For Comment Extension-Adams Fork-1-28-24.doc**  
45K



## West Virginia Chapter

P.O. Box 4142  
Morgantown, WV 26504

Jan. 8, 2024

Laura Crowder, Director  
WV-DEP, Division of Air Quality  
601 57th Street, SE  
Charleston, WV 25304-234

Via e-mail to: <[laura.m.crowder@wv.gov](mailto:laura.m.crowder@wv.gov)>

RE: Request for extension of the comment period for Permit R13-3622 for TransGas Development Systems, LLC Ammonia Production Facility.

Dear Director Crowder:

On behalf of the approximately 2600 members of the West Virginia Chapter of Sierra Club, we request an extension of the comment period for the draft permit for the Adams Fork, Transgas ammonia facility in Mongo County. The proposed facility is identified as an “anchor” for the ARCH2 hydrogen hub in West Virginia, and proposes to use carbon capture and sequestration to reduce emissions of greenhouse gases. However, the draft permit has fragmented the regulatory process to the point that most of the issues of greatest concern are not addressed.

We note that the ARCH2 hub is in very early stages of development, and contracts for funding from US-DOE have not yet been finalized, so there is no clear identification of which facilities will move forward. Furthermore, the ARCH2 process requires a “Community Benefits Plan”, as well as full analysis of impacts through the Environmental Impact Statement (EIS) process pursuant to NEPA. We note that the EIS process provides exactly the kind of integrated analysis and interdisciplinary assessment that is explicitly lacking in a piecemeal permitting process, such as R13-3622. In fact, NEPA explicitly precludes irreversible and irretrievable commitments before an EIS is completed.

We therefore request that the permit be delayed until a Final EIS has been completed. We recognize that WV-DEP has regulatory deadlines to complete the permit, however, we hope you would request that the applicant voluntarily waive those deadlines so that the EIA and Community Benefits Plan can be completed.

In the event that the comment period cannot be delayed until the EIS is complete, we request at a minimum, a 60-day extension of the comment period. The proposed facility, with its methane sources, ammonia pipelines, transportation and delivery infrastructure, and especially the proposed Carbon Capture and Sequestration systems are too complex to be adequately addressed in the short period proposed by WV-DEP. Citizens need time to understand the

proposed facility, and fully evaluate the emissions and risks, in order to provide meaningful comments to WV-DEP. Given that the ARCH 2 process will have delays of over a year before facilities receive funding, there is no rational basis for rushing this through.

Thank you for considering this request, and we appreciate your commitment to public participation.

Sincerely,

A handwritten signature in cursive script that reads "James Kotcon".

James Kotcon  
Chair, West Virginia Chapter  
304-594-3322 (home)  
304-293-8822 (office)  
[jkotcon@gmail.com](mailto:jkotcon@gmail.com)

cc:

Joe Kessler, Engineer [Joseph.R.Kessler@wv.gov](mailto:Joseph.R.Kessler@wv.gov)



**Kessler, Joseph R** <joseph.r.kessler@wv.gov>

---

**RE: TransGas Questions**

1 message

**Patrick E. Ward** <PEWard@potesta.com>

Mon, Dec 18, 2023 at 1:33 PM

To: "Kessler, Joseph R" &lt;joseph.r.kessler@wv.gov&gt;, "adam@tgds.com" &lt;adam@tgds.com&gt;

Cc: "Rhonda L. Henson" &lt;rlhenson@potesta.com&gt;

See below in blue regarding your questions.

A few comments on the draft permit:

Page 3, Section 1.0 Emission Units. This is minor but the language of the note said "below" instead of above. Suggested revised language for Note 1: The facility will be made up of up to six (6) identical production plants, each with the emission units as listed above. Individual plant emission units and emission point identification numbers will be designated as 1 through 6 as applicable where the "X" is located.

Page 13, 4.1.4.b. We have a total of 155,327 lbs per startup cycle instead of 144,566 lbs.

Page 14, Table 4.1.6(c).

For Startup NOx I don't get the same number. I get NOx at 2.56 but that is with the Startup Boiler, Pre-Heater, and Super-Heater all feeding the SCR at the same time. For Steady-State the numbers are for the Pre-Heater only. Need the total emissions from Pre-Heater and Super-Heater which would be CO 0.02, NOx 1.54, PM2.5/PM10/PM 0.02, SO2 0.02, and VOC 0.02. The total tpy numbers also need to be checked.

Page 14, 4.1.7.d. Suggested language change to: Each unit shall be operated with a flame present at all times when emissions are vented to the unit.

Let me know if you have any questions on this email.

Regards,

Patrick Ward

Potesta & Associates, Inc.

7012 MacCorkle Avenue, S.E.

Charleston, West Virginia 25304

Ph: (304) 342-1400

Direct: (304) 414-4751

Fax: (304) 343-9031

This electronic communication and its attachments contain confidential information. The recommendations and/or design data included herein are provided as a matter of convenience and should not be used for final design or ultimate decision making. Rely only on the final hardcopy materials bearing the consultant's original signature and seal. If you have received this information in error, please notify the sender immediately.

---

**From:** Kessler, Joseph R <[joseph.r.kessler@wv.gov](mailto:joseph.r.kessler@wv.gov)>  
**Sent:** Thursday, December 14, 2023 2:37 PM  
**To:** Patrick E. Ward <[PEWard@potesta.com](mailto:PEWard@potesta.com)>; [adam@tgds.com](mailto:adam@tgds.com)  
**Cc:** Joseph R Kessler <[joseph.r.kessler@wv.gov](mailto:joseph.r.kessler@wv.gov)>  
**Subject:** TransGas Questions

As a follow up to my TEAMS calls with Mr. Ward, here are some of the outstanding questions/comments I had regarding the TransGas permit application.

1. It appears the MDHI of the Super-Heater given on page L44 (13,327 mmBtu/hr) is incorrect. Please verify the MDHI of the unit - possibly 133.27 mmBtu/hr. [It should be 1,332.7 MMBtu/hr.](#)
2. The VOC emission factor for the Startup & Steam Generators is off by a factor 10 on page N3 (should be 0.12 lb/mmBtu). [See attached.](#)
3. Please provide the natural gas feedstock requirements for a plant to operate at its maximum production rate of 6,000 MTD. [194.5 MMSCFD or 70,992.5 MMSCFY per plant at 365 days per year.](#)
4. Understanding that the final design of the process flares are not yet completed, please provide a reasonable maximum capacity of each flare in scfm. [The number that you had in Section 4.1.7.a. of 216,273 scfm is correct.](#)

In addition, pursuant to my discussion with Mr. Ward, attached is a "Pre-Draft" version of the permit. This Pre-Draft version has not been reviewed or approved by my supervisor and is, therefore, subject to change. This version is being provided to you prior to going to public notice with the document to facilitate discussions of permit structure, language, and operational flexibility only, and does not grant the applicant any authority to begin any work on the site beyond the scope granted by 45CSR13. Areas that need additional review are highlighted.

Please review and let me know if you have any questions or comments, preferably no later than by Monday, 12/18.

Thank you,

--

**Joe Kessler, PE**

Engineer

West Virginia Division of Air Quality

601-57th St., SE

Charleston, WV 25304

Phone: (304) 926-0499 x41271

[Joseph.r.kessler@wv.gov](mailto:Joseph.r.kessler@wv.gov)

---



**Redacted Attachment N - Potential to Emit (22-132-001).pdf**

767K

**Kessler, Joseph R** <joseph.r.kessler@wv.gov>

---

## TPY numbers for SCR

1 message

**Patrick E. Ward** <PEWard@potesta.com>

Mon, Dec 18, 2023 at 2:21 PM

To: "Kessler, Joseph R (DAQ)" &lt;Joseph.R.Kessler@wv.gov&gt;

Adding page J1 and J3 which has all the units vented to SCR and multiplying by 6 for all plants I get the following tpy for

Table 4.1.6.c:

NOx 40.278

CO 1.98

PMs 0.198

SO2 0.1203

VOC 0.162

Let me know if you get something different.

Regards,

Patrick Ward

Potesta &amp; Associates, Inc.

7012 MacCorkle Avenue, S.E.

Charleston, West Virginia 25304

Ph: (304) 342-1400

Direct: (304) 414-4751

Fax: (304) 343-9031

This electronic communication and its attachments contain confidential information. The recommendations and/or design data included herein are provided as a matter of convenience and should not be used for final design or ultimate decision making. Rely only on the final hardcopy materials bearing the consultant's original signature and seal. If you have received this information in error, please notify the sender immediately.

---

 **winmail.dat**  
17K

**Kessler, Joseph R** <joseph.r.kessler@wv.gov>

---

## TransGas Questions

1 message

**Kessler, Joseph R** <joseph.r.kessler@wv.gov>

Thu, Dec 14, 2023 at 2:37 PM

To: Patrick Ward &lt;peward@potesta.com&gt;, adam@tgds.com

Cc: Joseph R Kessler &lt;joseph.r.kessler@wv.gov&gt;

As a follow up to my TEAMS calls with Mr. Ward, here are some of the outstanding questions/comments I had regarding the TransGas permit application.

1. It appears the MDHI of the Super-Heater given on page L44 (13,327 mmBtu/hr) is incorrect. Please verify the MDHI of the unit - possibly 133.27 mmBtu/hr.
2. The VOC emission factor for the Startup & Steam Generators is off by a factor 10 on page N3 (should be 0.12 lb/mmBtu).
3. Please provide the natural gas feedstock requirements for a plant to operate at its maximum production rate of 6,000 MTD.
4. Understanding that the final design of the process flares are not yet completed, please provide a reasonable maximum capacity of each flare in scfm.

In addition, pursuant to my discussion with Mr. Ward, attached is a "Pre-Draft" version of the permit. This Pre-Draft version has not been reviewed or approved by my supervisor and is, therefore, subject to change. This version is being provided to you prior to going to public notice with the document to facilitate discussions of permit structure, language, and operational flexibility only, and does not grant the applicant any authority to begin any work on the site beyond the scope granted by 45CSR13. Areas that need additional review are highlighted.

Please review and let me know if you have any questions or comments, preferably no later than by Monday, 12/18.

Thank you,

--

**Joe Kessler, PE**

Engineer

West Virginia Division of Air Quality

601-57th St., SE

Charleston, WV 25304

Phone: (304) 926-0499 x41271

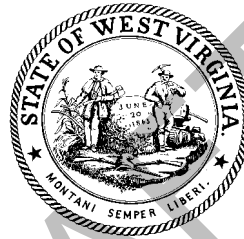
[Joseph.r.kessler@wv.gov](mailto:joseph.r.kessler@wv.gov)**3622 Pre-Draft Permit.pdf**

290K

*West Virginia Department of Environmental Protection*

*Harold D. Ward  
Cabinet Secretary*

# Permit to Construct



**R13-3622**

*This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45 C.S.R. 13 — Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the facility listed below is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.*

Issued to:

**TransGas Development Systems, LLC  
Ammonia Production Facility  
059-00102**

---

*Laura M. Crowder  
Director, Division of Air Quality*

Issued: **DRAFT**

*This permit will supercede and replace Permit R13-2791A issued on August 5, 2011.*

Facility Location: Near Wharncliffe, Mingo County, West Virginia  
Mailing Address: 630 First Avenue, New York, NY 10016-3799  
Facility Description: Ammonia Production Facility  
SIC/NAICS Code: 2873/325311  
UTM Coordinates: 418.156 km Easting • 4,163.591 km Northing • Zone 17  
Latitude/Longitude: 37.61577/-81.92736  
Permit Type: Construction  
Desc. of Change: Construction of six (6) identical 6,000 metric tons/day (MTPD) ammonia manufacturing plants on the site of the previously permitted (but not constructed) coal-to-gasoline facility (Permit Number R13-2791A).

*Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.*

---

*The source is not subject to 45CSR30.*

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**1.0 Emission Units<sup>(1)</sup>**

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
1S-X	2E-X	Feed Purification	2024	6,000 metric tons/day	Process Flare <sup>(2)</sup> (2C-X)
2S-X	2E-X	Reformer Section	2024		
3S-X	2E-X	ATR Section	2024		
4S-X	2E-X	CO Conversion Section	2024		
5S-X	2E-X	Nitrogen Wash Unit	2024		
6S-X	2E-X	CO <sub>2</sub> Removal Section	2024		
7S-X	2E-X	Ammonia Loop	2024		
8S-X	1E-X	Startup Steam Generator	2024	5.15 mmBtu/hr	SCR <sup>(3)</sup> (1C-X)
9S-X	1E-X	Pre-Heater	2024	14.30 mmBtu/hr	
10S-X	1E-X	Super-Heater	2024	133.27 mmBtu/hr	
11S-X	4E-X	Startup & Emergency Generator	2024	1,451 horsepower	None

- (1) The facility will be made up of up to six (6) identical production plants, each with the emission units as listed below. Individual plant emission unit and emission point identification numbers will be as given below with the designation of 1 - 6 as applicable where the "X" is located.
- (2) The Process Flare is only utilized during startup/shutdown cycles and during steady-state plant operations there are no emissions from these units.
- (3) These units vent to the SCR during both startup and steady-state operations.

## 2.0. General Conditions

### 2.1. Definitions

- 2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45 CSR § 30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

### 2.2. Acronyms

<b>CAAA</b>	Clean Air Act Amendments		Standards for Hazardous Air
<b>CBI</b>	Confidential Business Information		Pollutants
<b>CEM</b>	Continuous Emission Monitor	<b>NO<sub>x</sub></b> <b>NSPS</b>	Nitrogen Oxides New Source Performance Standards
<b>CES</b>	Certified Emission Statement	<b>PM</b>	Particulate Matter
<b>C.F.R. or CFR</b>	Code of Federal Regulations	<b>PM<sub>2.5</sub></b>	Particulate Matter less than 2.5µm in diameter
<b>CO</b>	Carbon Monoxide		
<b>C.S.R. or CSR</b>	Codes of State Rules	<b>PM<sub>10</sub></b>	Particulate Matter less than 10µm in diameter
<b>DAQ</b>	Division of Air Quality		
<b>DEP</b>	Department of Environmental Protection	<b>Ppb</b> <b>pph</b>	Pounds per Batch Pounds per Hour
<b>dscm</b>	Dry Standard Cubic Meter	<b>ppm</b>	Parts per Million
<b>FOIA</b>	Freedom of Information Act	<b>Ppmv or ppmv</b>	Parts per million by volume
<b>HAP</b>	Hazardous Air Pollutant	<b>PSD</b>	Prevention of Significant Deterioration
<b>HON</b>	Hazardous Organic NESHAP		
<b>HP</b>	Horsepower		
<b>lbs/hr</b>	Pounds per Hour	<b>psi</b>	Pounds per Square Inch
<b>LDAR</b>	Leak Detection and Repair	<b>SIC</b>	Standard Industrial Classification
<b>M</b>	Thousand		
<b>MACT</b>	Maximum Achievable Control Technology	<b>SIP</b> <b>SO<sub>2</sub></b>	State Implementation Plan Sulfur Dioxide
<b>MDHI</b>	Maximum Design Heat Input	<b>TAP</b>	Toxic Air Pollutant
<b>MM</b>	Million	<b>TPY</b>	Tons per Year
<b>MMBtu/hr or mmbtu/hr</b>	Million British Thermal Units per Hour	<b>TRS</b> <b>TSP</b> <b>USEPA</b>	Total Reduced Sulfur Total Suspended Particulate United States Environmental Protection Agency
<b>MMCF/hr or mmcf/hr</b>	Million Cubic Feet per Hour	<b>UTM</b>	Universal Transverse Mercator
<b>NA</b>	Not Applicable		
<b>NAAQS</b>	National Ambient Air Quality Standards	<b>VEE</b> <b>VOC</b>	Visual Emissions Evaluation Volatile Organic Compounds
<b>NESHAPS</b>	National Emissions	<b>VOL</b>	Volatile Organic Liquids

### **2.3. Authority**

This permit is issued in accordance with West Virginia Air Pollution Control Law W.Va. Code §§22-5-1 et seq. and the following Legislative Rules promulgated thereunder:

- 2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation.*

### **2.4. Term and Renewal**

- 2.4.1. This permit supercedes and replaces previously issued Permit R13-2791A. This permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any applicable legislative rule.

### **2.5. Duty to Comply**

- 2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-3622, and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to;  
**[45CSR§§13-5.10 and 13-10.3]**
- 2.5.2. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA;
- 2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;
- 2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses and/or approvals from other agencies; i.e., local, state and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

### **2.6. Duty to Provide Information**

The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for administratively updating, modifying, revoking or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

## **2.7. Duty to Supplement and Correct Information**

Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

## **2.8. Administrative Update**

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.

[45CSR§13-4]

## **2.9. Permit Modification**

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.

[45CSR§13-5.4.]

## **2.10. Major Permit Modification**

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.

[45CSR§13-5.1]

## **2.11. Inspection and Entry**

The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

- a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
- d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

## **2.12. [Reserved]**

**2.13. Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for a permittee in an enforcement action that it should have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

**2.14. Suspension of Activities**

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

**2.15. Property Rights**

This permit does not convey any property rights of any sort or any exclusive privilege.

**2.16. Severability**

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

**2.17. Transferability**

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. [45CSR§13-10.1]

**2.18. Notification Requirements**

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

**2.19. Credible Evidence**

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

### 3.0. Facility-Wide Requirements

#### 3.1. Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.  
[45CSR§6-3.1.]
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.  
[45CSR§6-3.2.]
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.  
[40CFR§61.145(b) and 45CSR§34]
- 3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.  
[45CSR§4-3.1 State-Enforceable only.]
- 3.1.5. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.  
[45CSR§13-10.5.]
- 3.1.6. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45 C.S.R. 11.  
[45CSR§11-5.2.]

#### 3.2. Monitoring Requirements

- 3.2.1. **Emission Limit Averaging Time.** Unless otherwise specified, compliance with all annual limits shall be based on a rolling twelve month total. A rolling twelve month total shall be the sum of the measured parameter of the previous twelve calendar months. Compliance with all hourly emission limits shall be based on the applicable NAAQS averaging times or, where applicable, as given in any approved performance test method.

### 3.3. Testing Requirements

- 3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary 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. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:
- a. 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 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.
  - b. 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 may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.
  - c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.
  - d. The permittee shall submit a report of the results of the stack test within sixty (60) days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1.; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:
    1. The permit or rule evaluated, with the citation number and language;
    2. The result of the test for each permit or rule condition; and,
    3. A statement of compliance or noncompliance with each permit or rule condition.

**[WV Code § 22-5-4(a)(14-15) and 45CSR13]**

### 3.4. Recordkeeping Requirements

- 3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.
- 3.4.2. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.  
**[45CSR§4. State-Enforceable only.]**

### 3.5. Reporting Requirements

- 3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
- 3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
- 3.5.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class or by private carrier with postage prepaid to the address(es), or submitted in electronic format by email as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

**If to the DAQ:**

Director  
WVDEP  
Division of Air Quality  
601 57th Street, SE  
Charleston, WV 25304-2345

**DAQ Compliance and Enforcement<sup>1</sup>:**  
**DEPAirQualityReports@wv.gov**

**If to the US EPA:**

Section Chief, USEPA, Region III  
Enforcement and Compliance  
Assurance Division  
Air Section (3ED21)  
Four Penn Center  
1600 John F Kennedy Blvd  
Philadelphia, PA 19103-2852

<sup>1</sup> For all self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols, notice of Compliance Status Reports, Initial Notifications, etc.



**3.5.4. Operating Fee.**

- 3.5.4.1. In accordance with 45CSR22 – Air Quality Management Fee Program, the permittee shall not operate nor cause to operate the permitted facility or other associated facilities on the same or contiguous sites comprising the plant without first obtaining and having in current effect a Certificate to Operate (CTO). Such Certificate to Operate (CTO) shall be renewed annually, shall be maintained on the premises for which the certificate has been issued or accessible/available electronically for review from the premises by company representatives when at the location, and shall be made available within a reasonable time for inspection by the Secretary or his/her duly authorized representative.
- 3.5.4.2. In accordance with 45CSR§22.4 – Air Quality Management Fee Program, newly permitted facilities will be sent an Application for a Certificate to Operate (CTO). The CTO will cover the time period beginning with the date of initial startup through the following June 30. Said application and the appropriate fee should be submitted to this office at least 30 days prior to the date of initial startup to allow adequate time for processing. For any startup date other than July 1, the permittee shall pay a fee or prorated fee in accordance with Section 4.5 of 45CSR22.
- 3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

## 4.0. Source-Specific Requirements

### 4.1. Limitations and Standards

4.1.1. Only those emission units/sources as identified in Table 1.0, with the exception of any *de minimis* sources as identified under Table 45-13B of 45CSR13, are authorized at the permitted facility by this permit. In accordance with the information filed in Permit Application R13-3622, the emission units/sources identified under Table 1.0 of this permit shall be installed, maintained, and operated so as to minimize any fugitive escape of pollutants, shall not exceed the listed maximum design capacities, shall use the specified control devices, and comply with any other information provided under Table 1.0.

#### 4.1.2. Production Limits

The permittee is authorized to construct and operate up to six (6) ammonia production plants at the site. The production of ammonia (CAS# 67-56-1) from the facility shall not exceed 6,000 metric tons-ammonia/plant/day or 2,190,000 tons/plant/year. The feedstock natural gas shall not exceed **XXX** mmscf/plant/year.

#### 4.1.3. Plant Operating Modes

Each plant shall operate in one of three (3) modes: (1) Startup, (2) Shutdown, and (3) Steady-state. Each mode shall be defined in the following:

- a. In startup mode, the plant is transitioning from fully shutdown to operating in steady-state mode, and the following conditions will occur:
  - (1) The Startup Steam Generator (8S-X) may operate while combusting ammonia;
  - (2) The Pre-Heater (9S-X) and Super-Heater (10S-X) may operate and combust natural gas, process gas, and hydrogen while transitioning to combusting only hydrogen during steady-state mode; and
  - (3) All excess process gas not combusted in the heaters shall be sent to the Process Flare (2C-X) for combustion. For the purposes of this permit, process gases do not include any process heater combustion exhaust, air, nitrogen, steam, or any other non-pollutant entrained gas stream.
- b. In steady-state mode, the plant is producing ammonia product, and the following conditions will occur:
  - (1) The Pre-Heater (9S-X) and Super Heater (10S-X) may operate and combust only hydrogen and a trace amount of natural gas for flame detection purposes; and
  - (2) No process gases shall be released (or sent to the Process Flare for destruction).
- c. In shutdown mode, the plant is transitioning from operating in steady-state mode to fully shutdown, and the following conditions will occur:
  - (1) The Pre-Heater (9S-X) and Super Heater (10S-X) cease operation; and
  - (2) All remaining process gases are sent to the Process Flare (2C-X) for combustion.

- d. The permittee shall not exceed six (6) startup cycles and six (6) shutdown cycles on a facility-wide basis (from all plants) per rolling twelve (12) month period.

4.1.4. **Startup Steam Generators**

Each Startup Steam Generator, identified as 8S-X, shall meet the following requirements:

- a. Each unit shall not exceed an MDHI of 5.15 mmBtu/hr, shall only be fired by ammonia, shall only operate during startup mode, and shall utilize Selective Catalytic Reduction (SCR) (1C-X) for control of NO<sub>x</sub> emissions; and
- b. During one startup cycle, each unit shall not consume in excess of 144,566 lbs of ammonia.

4.1.5. **Process Heaters**

The Pre-Heaters and Super-Heaters, identified as 9S-X and 10S-X, respectively, shall meet the following requirements:

- a. Each Pre-Heater shall not exceed an MDHI of 14.30 mmBtu/hr and shall only combust the fuels as specified under 4.1.3. above, and shall utilize SCR (1C-X) for control of NO<sub>x</sub> emissions during all modes of operation; and
- b. Each Super-Heater shall not exceed an MDHI of 133.27 mmBtu/hr and shall only combust the fuels as specified under 4.1.3. above, and shall utilize SCR (1C-X) for control of NO<sub>x</sub> emissions during all modes of operation.

4.1.6. **SCRs**

The use of Selective Catalytic Reduction (SCR) shall be in accordance with the following:

- a. The SCR shall be designed, operated and maintained according to good engineering practices and manufacturing recommendations so as to achieve, at a minimum, a vendor guaranteed (based on specific plant operating conditions) 99.00% control of NO<sub>x</sub> emissions vented to it;
- b. The permittee shall maintain the proper temperature profile for NO<sub>x</sub> removal and shall operate the SCR in the optimal aqueous/anhydrous ammonia injection range as determined according to manufacturer recommendations or during the required performance testing; and
- c. The emission limits from the SCR emission points, identified as 2E-X, shall not exceed the following:

**Table 4.1.6(c): SCR Main Plant Stack Emission Limits**

Pollutant	PPH <sup>(1)</sup>		TPY <sup>(2)</sup>
	Startup	Steady-State	
CO	19.82	0.01	7.32
NO <sub>x</sub>	1.26	0.44	35.22
PM <sub>2.5</sub> /PM <sub>10</sub> /PM	9.23	0.01	0.18
SO <sub>2</sub>	0.05	0.01	0.18
VOCs	6.68	0.01	0.18
HAPs	2.29	0.01	0.18

(1) Maximum per each individual SCR Main Plant Stack.

(2) Aggregate facility-wide limit from all SCR Main Plant Stacks during all operational modes.

**4.1.7. Process Flares**

The Process Flares, identified as 2C-X, shall operate according to the following requirements:

- a. The units shall be non-assisted, shall not exceed a design capacity of 216,273 scf/min, and shall be designed and operated according to the requirements specified in 40 CFR 60, Section §60.18;
- b. Each unit shall be operated at all times when process gases are vented to it and shall not combust in excess of an 260 mmft<sup>3</sup> of process gases per each startup or XXX mmft<sup>3</sup> of process gases per each shutdown. Process gases sent to the flare shall be made up primarily of hydrogen, carbon monoxide, carbon dioxide, methane, nitrogen, and shall not exceed sulfur compounds in excess of 100 ppb (v/v);
- c. Each unit shall be designed, operated, and maintained according to good engineering practices or manufacturing recommendations so as to achieve, at a minimum, a carbon monoxide and hydrocarbon combustion rate of 98.5%. The permittee shall operate and maintain the flare according to the manufacturer's specifications for operating and maintenance requirements to maintain the minimum guaranteed control efficiency listed under 4.1.7(b);
- d. Each unit shall be operated with a flame present at all times, as determined by the methods specified in 4.2.4(b) and the permittee shall monitor the flare in accordance with 4.2.4(b);
- e. The emission limits from flaring during plant startups shall not exceed the following:

**Table 4.1.7(e): Process Flare Startup Emission Limits**

Pollutant	PPH <sup>(1)</sup>	TPY <sup>(2)</sup>
CO	623.17	1.92
NO <sub>x</sub>	167.50	10.74
PM <sub>2.5</sub> /PM <sub>10</sub> /PM <sup>(3)</sup>	7.54	0.06
SO <sub>2</sub>	0.04	0.01
VOCs	5.46	0.03
HAPs	1.87	0.01

- (1) Maximum per each individual process flare.
- (2) Aggregate plant-wide limit from all flares during all startup cycles.
- (3) Includes Condensables.

f. The emission limits from flaring during plant shutdowns shall not exceed the following:

**Table 4.1.7(h): Process Flare Shutdown Emission Limits**

Pollutant	PPH <sup>(1)</sup>	TPY <sup>(2)</sup>
CO	9.93	0.03
NO <sub>x</sub>	178.72	0.53

- (1) Maximum per each individual process flare.
- (2) Aggregate plant-wide limit from all flares during all startup cycles.

g. **45CSR6**

The flare is subject to 45CSR6. The requirements of 45CSR6 include but are not limited to the following:

- (1) The permittee shall not cause, suffer, allow or permit particulate matter to be discharged from the flares into the open air in excess of the quantity determined by use of the following formula:

$$\text{Emissions (lb/hr)} = F \times \text{Incinerator Capacity (tons/hr)}$$

Where, the factor, F, is as indicated in Table I below:

**Table I:** Factor, F, for Determining Maximum Allowable Particulate Emissions

<u>Incinerator Capacity</u>	<u>Factor F</u>
A. Less than 15,000 lbs/hr	5.43
B. 15,000 lbs/hr or greater	2.72

**[45CSR§6-4.1]**

- (2) No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater.

**[45CSR6 §4.3]**

- (3) The provisions of subsection 4.3 shall not apply to smoke which is less than forty percent (40%) opacity, for a period or periods aggregating no more than eight (8) minutes per start-up, or six (6) minutes in any sixty (60)-minute period for stoking operations.  
**[45CSR6 §4.4]**
- (4) No person shall cause or allow the emission of particles of unburned or partially burned refuse or ash from any incinerator which are large enough to be individually distinguished in the open air.  
**[45CSR6 §4.5]**
- (5) Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.  
**[45CSR6 §4.6]**
- (6) Due to unavoidable malfunction of equipment, emissions exceeding those provided for in this rule may be permitted by the Director for periods not to exceed five (5) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.  
**[45CSR6 §8.2]**

4.1.8. **Emergency Generators**

The Startup & Emergency Generators, identified as 11S-X, shall meet the following requirements:

- a. Each unit shall be a Cummins Model C1000N6B, shall not exceed 1,451 hp, shall be fired only with natural gas, and shall not operate in excess of 100 hours per year during times not defined as emergencies;
- b. The maximum emissions from each Emergency Generator shall not exceed the limits given in the following table:

**Table 4.1.8(b): Startup & Emergency Generators Emission Limits**

Pollutant	PPH	TPY
CO	5.11	0.26
NO <sub>x</sub>	3.20	0.16
PM <sub>2.5</sub> /PM <sub>10</sub> /PM <sup>(1)</sup>	0.48	0.02
SO <sub>2</sub>	0.01	0.01
VOCs	1.18	0.06
HAPs	0.01	0.01

(1) Includes condensables.

c. **40 CFR 60, Subpart JJJJ**

Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE.

**[40 CFR §60.4233(e)]**

**Table 1 to Subpart JJJJ of Part 60—NO<sub>x</sub>, CO, and VOC Emission Standards for Stationary Non-Emergency SI Engines ≥100 HP (Except Gasoline and Rich Burn LPG), Stationary SI Landfill/Digester Gas Engines, and Stationary Emergency Engines >25 HP**

Engine type and fuel	Maximum engine power	Manufacture date	Emission standards					
			g/HP-hr			ppmvd at 15% O <sub>2</sub>		
			NO <sub>x</sub>	CO	VOC <sup>(d)</sup>	NO <sub>x</sub>	CO	VOC <sup>(d)</sup>
Non-Emergency SI Natural Gas and Non-Emergency SI Lean Burn LPG (except lean burn 500=HP<1,350)	HP≥500	7/1/2010	1.0	2.0	0.7	82	270	60

(a) Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O<sub>2</sub>.

(d) For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

**[40 CFR60, Subpart JJJJ, Table 1]**

**d. 40 CFR 63, Subpart ZZZZ**

An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

**[40 CFR §63.6590(c)]**

**4.1.9. Fugitive Emissions**

The permittee shall mitigate the release of fugitive emissions according to the following requirements:

- a. The permittee shall, within 180 days of facility startup, submit a modification or Class II Administrative Update, as applicable pursuant 45CSR13, to revise the number and type of components (valves, pump seals, connectors, etc.) in gas/vapor or light liquid (as applicable) listed in Attachment N of Permit Application R13-3622 or any amendments or revisions submitted thereto if the as-built number of components results in calculated VOC or HAP emissions in excess of those given under Attachment N; and
- b. The permittee shall install, maintain, and operate all above-ground piping, valves, pumps, etc. that service lines in the transport of potential sources of regulated air pollutants to prevent any substantive fugitive escape of regulated air pollutants. Any above-ground piping, valves, pumps, etc. that shows signs of excess wear and that have a reasonable potential for substantive fugitive emissions of regulated air pollutants shall be replaced.

**4.1.10. Closed Vent Requirements**

The permittee shall meet the following requirements below for all piping systems designed to evacuate process gases to the Process Flares or Process Heaters for combustion:

- a. The permittee shall design and operate the closed vent system as determined following the procedures under 40 CFR 60, Subpart VVa for ongoing compliance;
- b. The permittee shall meet the requirements specified in (1) and (2) of this section if the closed vent system contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device or to a process;

- (1) Except as provided in paragraph (2) of this section, you must comply with either paragraph (i) or (ii) of this section for each bypass device.
  - (i) You must properly install, calibrate, maintain, and operate a flow indicator at the inlet to the bypass device that could divert the stream away from the control device or process to the atmosphere that sounds an alarm, or initiates notification via remote alarm to the nearest field office, when the bypass device is open such that the stream is being, or could be, diverted away from the control device or process to the atmosphere; or
  - (ii) You must secure the bypass device valve installed at the inlet to the bypass device in the non-diverting position using a car-seal or a lock-and-key type configuration.
- (2) Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to the requirements of paragraph (i) of this section. Pressure relief valves used to protect fluid tanks from overpressure are not subject to this section.

4.1.11. **Vendor Guarantees**

The permittee shall, at the time of initial startup, maintain on-site and have readily available to be made available to the Director or his/her representative upon request, a copy of the all current vendor guarantees relevant to the air emissions associated with the facility. This includes information relating to the performance of both emission units and control devices.

4.1.12. **Applicable Rules**

The permittee shall meet all applicable requirements, including those not specified above, as given under 45CSR6 and 40 CFR 60, Subpart JJJJ. Any final revisions made to the above rules will, where applicable, supercede those specifically cited in this permit.

4.1.13. **Operation and Maintenance of Air Pollution Control Equipment**

The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 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.

[45CSR§13-5.10]

**4.2. Monitoring, Compliance Demonstration, Recording and Reporting Requirements**

4.2.1. **Maximum Design Capacity Compliance**

Compliance with the maximum design capacity limitations as given under Table 1.0 and Section 4.1. shall be based, when available, on a clear and visible boilerplate rating or on product literature, manufacturer's data, or equivalent documentation that shows that the specific emission unit(s) or processing line in question is limited by design to a throughput or production rate (or bottlenecked to that capacity by another unit's design capacity) that does not exceed the specified value under Table 1.0 and Section 4.1. Where the above is not available, if requested by the Director, compliance shall be based on a reasonable demonstration that the listed quantity represents the maximum capacity of the unit/process under the plants normal operational configuration.



4.2.2. **Maximum Design Heat Input Compliance**

Compliance with the various combustion unit MDHI limitations as given under Table 1.0 and Section 4.1. shall be based on a clear and visible boilerplate rating or on product literature, manufacturer’s data, or equivalent documentation that shows that the specific emission unit(s) in question is limited by design to an MDHI that does not exceed the specified value under Table 1.0 and Section 4.1.

4.2.3. **Quantities Monitored/Recorded**

To determine continuous compliance with maximum production, throughputs, and other limits given under in 4.1 of the permit, the permittee shall monitor and record the following:

**Table 4.2.3: Facility Quantities Monitored/Recorded**

Quantity Monitored/Recorded	Emission Unit(s)	Measured Units
Natural Gas Feedstock	Per-Plant	mmscf/year
Ammonia Production	Per-Plant	tons/day <sup>(1)</sup>
	Facility Wide	tons/year
Startups	Facility Wide	Number of Events
Shutdowns	Facility Wide	Number of Events
Process Gas Combusted	Per-Process Flare/Startup	Volume (ft <sup>3</sup> )
	Per-Process Flare/Shutdown	Volume (ft <sup>3</sup> )
Non-Emergency Operation	Per-Generator	Hours

(1) Compliance with the daily plant ammonia production limit shall be determined by dividing the monthly production rate by the hours of operation for that same month and then multiplying the result by 24.

4.2.4. **Flare**

The permittee shall meet the following Monitoring, Compliance Demonstration, Recording and Reporting Requirements for the flare:

- a. To demonstrate compliance with 4.1.7(b), the permittee shall maintain records of the manufacturer's specifications for operating and maintenance requirements to maintain the minimum control efficiency;
- b. To demonstrate compliance with the flame requirements of 4.1.7(b) and (d), the presence of a pilot flame shall be continuously monitored using a thermocouple or any other equivalent device to detect the presence of a flame when emissions are vented to it. The pilot shall be equipped such that it sounds an alarm, or initiates notification via remote alarm to the nearest field office, when the pilot light is out. The permittee shall maintain records of the times and duration of all periods when the pilot flame was not present and vapors were vented to the device. The permittee shall maintain records of any inspections made pursuant to 4.2.4(b);
- c. For any absence of pilot flame, or other indication of smoking or improper equipment operation, the permittee must ensure the equipment is returned to proper operation as soon as practicable after the event occurs. At a minimum, the permittee must: (1) Check the air vent for

obstruction. If an obstruction is observed, you must clear the obstruction as soon as practicable.  
(2) Check for liquid reaching the flare;

- d. Any bypass event of a flare must be reported in writing to the Director of the DAQ as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the date of the bypass, the estimate of VOC emissions released to the atmosphere as a result of the bypass, the cause or suspected cause of the bypass, and any corrective measures taken or planned; and
- e. Any time the flare is not operating when emissions are vented to it, shall be reported in writing to the Director of the DAQ as soon as practicable, but within ten (10) calendar days of the discovery.

#### 4.2.5. **Flare Visible Emissions Compliance**

Visible emissions Monitoring, Compliance Demonstration, Recording and Reporting shall be in accordance with the following requirements:

- a. Compliance with the visible emission requirements for the process flares given under 4.2.7(g)(2) and (3) shall be in accordance with the following: Visible emission checks shall be conducted during each plant startup. These checks shall be performed for a sufficient time interval, but no less than a 6-minute interval, to determine if any visible emissions are present. Each observation must be recorded as either visible emissions observed or no visible emissions observed. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions;
  - (2) The visible emission check shall determine the presence or absence of visible emissions. The observations shall be conducted according to Section 11 of EPA Method 22. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 which may include online web-based training as supplied by a Method 9 training company;
  - (3) If visible emissions are determined to be present at a source(s) during the testing required under 4.2.(a)(2), the permittee shall, as soon as practicable, attempt to diagnose and correct any issue that is causing the presence of visible emissions;
  - (4) If the cause of the visible emissions are not correctable within a reasonable time (not to exceed three (3) hours), the permittee shall perform a Method 9 reading as soon as practicable to confirm that visible emissions are within the applicable limits of this permit;
  - (5) If, at any time, plant personnel observe any sustained visible emissions (lasting longer than 6 minutes) from the process flare, the permittee shall conduct a Method 22 test on that emission point pursuant to the requirements of this section.
- c. For the purpose of demonstrating compliance with the visible emissions and opacity requirements, the permittee shall maintain records of the visible emission opacity tests and checks. The permittee shall maintain records of all monitoring data required by 4.2.5 documenting the date and time of each visible emission check, the emission point or equipment/

source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9. For an emission unit out of service during the evaluation, the record of observation may note "out of service" (O/S) or equivalent; and

- d. Any deviation of the allowable visible emission requirement for the process flare is discovered during observation using 40 CFR Part 60, Appendix A, Method 9 must be reported in writing to the Director of the DAQ as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

#### 4.2.6. **Closed Vent Requirements**

To demonstrate compliance with the closed vent system requirements of 4.1.13, the permittee shall:

- a. **Initial requirements.** The permittee shall follow the procedures in 40 CFR 60, Subpart VVa. The initial inspection shall include the bypass inspection, conducted according to paragraph (b) of this section.
- b. **Bypass inspection.** Visually inspect the bypass valve during the initial inspection for the presence of the car seal or lock-and-key type configuration to verify that the valve is maintained in the non-diverting position to ensure that the vent stream is not diverted through the bypass device. If an alternative method is used, conduct the inspection of the bypass as described in the operating procedures.
- c. **Unsafe to inspect requirements.** You may designate any parts of the closed vent system as unsafe to inspect if the requirements in paragraphs (1) and (2) of this section are met. Unsafe to inspect parts are exempt from the inspection requirements of paragraphs (a) and (b) of this section.
  - (1) You determine that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with the requirements.
  - (2) You have a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.
- d. To demonstrate compliance with the closed vent monitoring requirements given under paragraphs (a) through (c) above, the following records shall be maintained:
  - (1) The initial compliance requirements;
  - (2) If you are subject to the bypass requirements, the following records shall also be maintained:
    - (i) Each inspection or each time the key is checked out or a record each time the alarm is sounded;

- (ii) Each occurrence that the control device was bypassed. If the device was bypassed, the records shall include the date, time, and duration of the event and shall provide the reason that the event occurred. The record shall also include the estimate of emissions that were released to the environment as a result of the bypass.
- (3) Any part of the system that has been designated as "unsafe to inspect" in accordance with 4.2.3(c).

**4.3. Performance Testing Requirements**

**4.3.1. General Performance Testing**

At such reasonable time(s) as the Secretary may designate, in accordance with the provisions of 3.3 of this permit, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established in this permit and/or applicable regulations.

**4.3.2. Specific Emissions Point Performance Testing**

Within 60 days after achieving the maximum permitted production rate of the emission unit in question, but not later than 180 days after initial startup of the unit, the permittee shall conduct, or have conducted, in accordance with a protocol submitted pursuant to 3.3.1(c), performance tests on the emission units (as emitted from the listed emission points) to show compliance with the specified pollutants as given in the following table:

**Table 4.3.2.: Performance Testing Requirements**

Emission Unit(s)	Emission Point(s)	Pollutants	Limit
8S-X 9S-X 10S-X	1E-X <sup>(1)</sup>	NO <sub>x</sub> (Startup) NO <sub>x</sub> (Steady-State) CO (Startup)	PPH (Table 4.1.6(c)) <sup>(2)</sup>

- (1) This performance test is required for each of the plants that come on line. Thereafter, each plant is subject to the testing schedule given under 4.3.3. below.
- (2) Steady-state testing shall occur at the maximum production rate or the results of the test shall be scaled up to represent the plant operating at the maximum production rate in order to show compliance with the PPH limits.

**4.3.3. Performance Testing Schedule**

With respect to the performance testing required above under Section 4.3.2, the permittee shall, after the initial performance test, periodically conduct additional performance testing on the specified sources according to the following schedule:

**Table 4.3.3.: Performance Testing Schedule**

Test	Test Results	Retesting Frequency
Initial Baseline	<50% of the emission limit	Once/5 years
Initial Baseline	between 50% and 80 % of the emission limit	Once/3 years
Initial Baseline	>80% of the emission limit	Annual
Annual	after three successive tests indicate a mass emission rate <50% of the emission limit	Once/5 years

Test	Test Results	Retesting Frequency
Annual	after two successive tests indicate a mass emission rate <80 % of the emission limit	Once/3 years
Annual	any tests indicates a mass emission rate >80% of the emission limit	Annual
Once/2 years	After two successive tests indicate mass emission rates <50% of the emission limit	Once/5 years
Once/2 years	any tests indicates a mass emission rate <80 % of the emission limit	Once/3 years
Once/2 years	any tests indicates a mass emission rate >80% of the emission limit	Annual
Once/3 years	any tests indicates a mass emission rate <50% of the emission limit	Once/5 years
Once/3 years	any test indicates mass emission rates between 50% and 80 % of the emission limit	Once/3 years
Once/3 years	any test indicates a mass emission rate >80% of the emission limit	Annual

4.3.3. **Process Gas Testing**

In order to show compliance with 4.1.10(e), during each initial plant startup, the permittee shall conduct, or have conducted, in accordance with a protocol submitted pursuant to 3.3.1(c), a test on the process gas immediately prior to the Process Flare to confirm the assumptions used to determine the emissions in Attachment N of permit application R13-3622 (including a sulfur concentration at or below than 100 ppb (v/v). Any additional testing, after the initial performance test, will be at the discretion of the Secretary pursuant to 4.3.1. above.

4.4. **Additional Recordkeeping Requirements**

4.4.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:

- a. The date, place as defined in this permit and time of sampling or measurements;
- b. The date(s) analyses were performed;
- c. The company or entity that performed the analyses;
- d. The analytical techniques or methods used;
- e. The results of the analyses; and
- f. The operating conditions existing at the time of sampling or measurement.

4.4.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

4.4.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

#### 4.5. **Additional Reporting Requirements**

4.5.1. The permittee shall submit the following information to the DAQ according to the specified schedules:

a. **Biannual Monitoring Information Submission**

The permittee shall submit reports of all required monitoring on or before September 15 for the reporting period January 1 to June 30 and March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports; and

b. **Certification of Compliance**

The permittee shall submit to the Director on or before March 15, a certification of compliance with all requirements of this permit for the previous calendar year ending on December 31. If, during the previous annual period, the permittee had been out of compliance with any part of this permit, it shall be noted along with the following information: 1) the source/equipment/process that was non-compliant and the specific requirement of this permit that was not met, 2) the date the permitted discovered that the source/ equipment/process was out of compliance, 3) the date the Director was notified, 4) the corrective measures to get the source/equipment/process back into compliance, and 5) the date the source began to operate in compliance. The submission of any non-compliance report shall give no enforcement action immunity to episodes of non-compliance contained therein.

### CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached \_\_\_\_\_, representing the period beginning \_\_\_\_\_ and ending \_\_\_\_\_, and any supporting documents appended hereto, is true, accurate, and complete.

Signature<sup>1</sup> \_\_\_\_\_ Date \_\_\_\_\_  
(please use blue ink) Responsible Official or Authorized Representative

Name and Title \_\_\_\_\_ Title \_\_\_\_\_  
(please print or type) Name

Telephone No. \_\_\_\_\_ Fax No. \_\_\_\_\_

<sup>1</sup> This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

- a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
  - (I) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or
  - (ii) the delegation of authority to such representative is approved in advance by the Director;
- b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
- c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of USEPA); or
- d. The designated representative delegated with such authority and approved in advance by the Director.

**Kessler, Joseph R** <joseph.r.kessler@wv.gov>

---

**R13-3622 Resubmitted Permit Application Status**

1 message

**Kessler, Joseph R** <joseph.r.kessler@wv.gov>

Wed, Nov 1, 2023 at 8:40 AM

To: adam@tgds.com, Patrick Ward &lt;peward@potesta.com&gt;

Cc: Stephanie R Mink &lt;stephanie.r.mink@wv.gov&gt;, Joseph R Kessler &lt;joseph.r.kessler@wv.gov&gt;

**Resubmitted Application Status: Complete****Transgas Development Systems, LLC****Ammonia Production Facility****Facility ID No. 059-00102****Application No. R13-3622**

Mr. Victor,

On June 30, 2023, the Division of Air Quality (DAQ) received your permit application for an ammonia manufacturing plant to be located near Wharncliffe, Mingo County, WV. Upon an initial review of the permit application, and with the understanding some portions of the application would be revised, an e-mail was sent to you on July 28, 2023 notifying you that the permit application was incomplete and that additional information was needed. On October 3, 2023, the DAQ received a revised permit application and have, upon further review, noted that you have also provided the **additional** information that was requested in the July 28, 2023 e-mail. Therefore, the resubmitted permit application has been deemed complete as of the date of this e-mail. The ninety (90) day statutory time frame began on that day.

Additionally, our records indicate that three (3) separate payments of \$1,000 were made by TransGas to the DAQ (on July 5, August 8, and October 4, 2023). Pursuant to 45CSR22, the required fee for this permitting action is \$2,000. You may request a refund of \$1,000 by replying to this e-mail with the request.

Should you have any questions, please contact me at (304) 926-0499 ext. 41271 or reply to this email.

Thank You,

--

**Joe Kessler, PE**

Engineer

West Virginia Division of Air Quality

601-57th St., SE

Charleston, WV 25304

Phone: (304) 926-0499 x41271

[Joseph.r.kessler@wv.gov](mailto:joseph.r.kessler@wv.gov)





Kessler, Joseph R <joseph.r.kessler@wv.gov>

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## TRANSGAS DEVELOPMENT SYSTEMS / AMMONIA PRODUCTION FACILITY - PERMIT APP FEE

1 message

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**Scott, Kimberly A** <kimberly.a.scott@wv.gov>

Wed, Jul 5, 2023 at 4:50 PM

To: Joseph R Kessler <joseph.r.kessler@wv.gov>, Stephanie R Mink <stephanie.r.mink@wv.gov>, Nicole D Ernest <nicole.d.ernest@wv.gov>

This is the receipt of payment for:

Transgas Development Systems - \$1000 credit card

Transgas Development Systems  
Ammonia Production Facility

R13-3622  
ID: 059-00102

CR 2400000529                      deposited 07/05/2023

--

Kim Scott  
WV Dept. of Environmental Protection  
Business Operations Office  
Accounts Receivable  
601 57th Street SE  
Charleston, WV 25304  
Email: [Kimberly.A.Scott@wv.gov](mailto:Kimberly.A.Scott@wv.gov)  
Telephone: 304-926-0499 ext. 41950



Kessler, Joseph R <joseph.r.kessler@wv.gov>

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## TRANSGAS DEVELOPMENT SYSTEMS / AMMONIA PRODUCTION FACILITY - PERMIT APP FEE

1 message

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**Scott, Kimberly A** <kimberly.a.scott@wv.gov>

Mon, Aug 7, 2023 at 4:36 PM

To: Joseph R Kessler <joseph.r.kessler@wv.gov>, Stephanie R Mink <stephanie.r.mink@wv.gov>, Nicole D Ernest <nicole.d.ernest@wv.gov>

This is the receipt of payment for:

Transgas Development Systems - #1004 - date 07/30/2023 - \$1000

Transgas Development Systems  
Ammonia Production Facility

R13-3622  
ID 059-00102

CR 2400010192                      deposited 08/07/2023

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**Kim Scott**  
WV Dept. of Environmental Protection  
Business Operations Office  
Accounts Receivable  
601 57th Street SE  
Charleston, WV 25304  
Email: [Kimberly.A.Scott@wv.gov](mailto:Kimberly.A.Scott@wv.gov)  
Telephone: 304-926-0499 ext. 41950

3336 9320 6696 9460

R13-3622

Adam  
917-816-3700  
Fac. # 059-00102  
App. # R13-3622  
Adam@tgds.com

WV Dept of Env. Prot.  
601 57th St SE  
Charleston, WV 25304  
304-926-0499

**SALE**

TID: 00E30710 REF#: 00000015  
Bank ID: 000000 Batch #: 777  
10/04/23 RRN: 27701955428  
15:23:48  
AVS: 7 CVC: H  
Invoice #: R13322

APPR CODE: 00443D Manual CP  
VISA \*\*\*\*\*7449 \*\*/\*\*

**AMOUNT \$1,000.00**

APPROVED

SIGNATURE NOT REQUIRED

I AGREE TO PAY ABOVE TOTAL AMOUNT  
IN ACCORDANCE WITH CARD ISSUER'S  
AGREEMENT  
(MERCHANT AGREEMENT IF CREDIT VOUCHER)  
RETAIN THIS COPY FOR STATEMENT  
VERIFICATION

Thank You  
Please Come Again

MERCHANT COPY



Harless, Catherine L <catherine.l.harless@wv.gov>

**Please confirm R13-3622 is \$ 1000.00**

3 messages

Harless, Catherine L <catherine.l.harless@wv.gov>  
To: Stephanie R Mink <Stephanie.R.Mink@wv.gov>

Wed, Oct 4, 2023 at 1:58 PM

--  
Catherine.L.Harless@wv.gov



**Catherine.L.Harless**  
Accounting Technician III  
BTO - Fiscal Services  
West Virginia Department of Environmental Protection



Mink, Stephanie R <stephanie.r.mink@wv.gov>  
To: "Harless, Catherine L" <catherine.l.harless@wv.gov>

Wed, Oct 4, 2023 at 2:07 PM

Yes, that's correct. Joe Kessler is the engineer...here are the details:

**Transgas Development Systems, LLC; Ammonia Production Facility**

**Facility ID No. 059-00102**

**Application No. R13-3622**

[Quoted text hidden]

Harless, Catherine L <catherine.l.harless@wv.gov>  
To: "Mink, Stephanie R" <stephanie.r.mink@wv.gov>

Wed, Oct 4, 2023 at 2:16 PM

Thank you.

[Quoted text hidden]

# UC Defaulted Accounts Search Results

Sorry, no records matching your criteria were found.

---

FEIN:

Business name:           TRANSGAS DEVELOPMENT SYSTEMS, LLC

Doing business

as/Trading as:

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Please use your browsers back button to try again.

<a href="#">WorkforceWV</a>	<a href="#">Unemployment Compensation</a>	<a href="#">Offices of the Insurance Commissioner</a>
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## West Virginia Secretary of State — Online Data Services

### Business and Licensing

Online Data Services Help

### Business Organization Detail

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### TRANSGAS DEVELOPMENT SYSTEMS, LLC

Organization Information								
Org Type	Effective Date	Established Date	Filing Date	Charter	Class	Sec Type	Termination Date	Termination Reason
LLC   Limited Liability Company	12/2/2008		12/2/2008	Foreign	Profit			

Organization Information			
<b>Business Purpose</b>	2211 - Utilities - Utilities - Elec Power Generation, Transmission and Distribution (electric, hydroelectric, fossil fuel, nuclear, solar, wind, geothermal, biomass, other)		<b>Capital Stock</b>
<b>Charter County</b>		<b>Control Number</b>	99C8I
<b>Charter State</b>	NY	<b>Excess Acres</b>	
<b>At Will Term</b>	A	<b>Member Managed</b>	MGR
<b>At Will Term Years</b>		<b>Par Value</b>	
<b>Authorized Shares</b>		<b>Young Entrepreneur</b>	Not Specified

<b>Addresses</b>	
<b>Type</b>	<b>Address</b>
<b>Designated Office Address</b>	7012 MACCORKLE AVENUE CHARLESTON, WV, 253041099
<b>Mailing Address</b>	248 COLUMBIA TURNPIKE SUITE 314 FLORHAM PARK, NJ, 07932 USA
<b>Notice of Process Address</b>	RONALD POTEITA 7012 MACCORKLE AVENUE CHARLESTON, WV, 25304
<b>Principal Office Address</b>	630 1ST AVENUE, SUITE 30G NEW YORK, NY, 10016 USA
<b>Type</b>	<b>Address</b>

<b>Officers</b>	
<b>Type</b>	<b>Name/Address</b>
<b>Manager</b>	ADAM VICTOR 630 1ST AVENUE SUITE 30G NEW YORK, NY, 10016
<b>Type</b>	<b>Name/Address</b>

<b>Annual Reports</b>	
<b>Filed For</b>	
2023	
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<b>Date filed</b>

For more information, please contact the Secretary of State's Office at 304-558-8000.

Tuesday, July 25, 2023 — 2:35 PM

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**Kessler, Joseph R** <joseph.r.kessler@wv.gov>

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## Transgas Affidavit

1 message

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**Patrick E. Ward** <PEWard@potesta.com>  
To: "Kessler, Joseph R (DAQ)" <Joseph.R.Kessler@wv.gov>  
Cc: "Rhonda L. Henson" <rlhenson@potesta.com>


Thu, Oct 26, 2023 at 2:19 PM

Attached is the affidavit of publication for Transgas.

Regards,  
Patrick Ward  
Potesta & Associates, Inc.  
7012 MacCorkle Avenue, S.E.  
Charleston, West Virginia 25304  
Ph: (304) 342-1400  
Direct: (304) 414-4751  
Fax: (304) 343-9031

This electronic communication and its attachments contain confidential information. The recommendations and/or design data included herein are provided as a matter of convenience and should not be used for final design or ultimate decision making. Rely only on the final hardcopy materials bearing the consultant's original signature and seal. If you have received this information in error, please notify the sender immediately.

---

 **161171.pdf**  
253K

Ad Number 161171

**Affidavit of Legal Publication and Posting**

**STATE OF WEST VIRGINIA**

**COUNTY OF Mingo, TO-WIT**

I Erica Queen, Classified Advertising

Representative of the The Williamson Daily News, a newspaper

published in the county of Mingo, West Virginia, hereby

certify that the annexed publication was inserted in said

newspaper \_\_\_\_\_

The cost of publishing said annexed advertisement

as aforesaid was \$ 40.50

Commencing On: 10/11/2023

Ending On: 10/11/2023

Given under my hand this day 10/11/2023

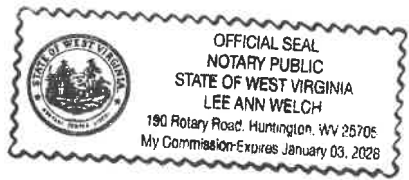
Sworn to and subscribed before me 10/11/2023  
at Williamson, Mingo County, West Virginia

Erica Queen

Notary Public of, in and for Mingo County, West Virginia

MY COMMISSION EXPIRES: Jan. 3, 2028

Lee Ann Welch



**ATTACHMENT P****AIR QUALITY  
PERMIT NOTICE****Notice of Application**

Notice is given that TransGas Development Systems, LLC has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a Construction Permit for an Ammonia Production Facility located on Right Fork of Bens Creek Road near Wharnclyffe in Mingo County, West Virginia. The latitude and longitude coordinates are: 37.615774 and -81.927364.

The applicant estimates the potential to discharge the following Regulated Air Pollutants will be: NOx of 52.53 tons per year (tpy), SO2 of 0.18 tpy, CO of 13.39 tpy, VOC of 0.25 tpy, PM of 0.40 tpy, PM10 of 0.40 tpy, PM2.5 of 0.40 tpy, and HAPs of 0.025 tpy.

Startup of operations is planned to begin on or about the 1st day of September 2026. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice. Written comments will also be received via email at DEP@AirQualityPermitting@WV.gov.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, Extension 41281, during normal business hours.

Dated this the 11th day of October 2023.

By:  
TransGas Development  
Systems, LLC  
Adam Victor  
President  
630 First Avenue,  
Suite 30G  
New York, New York  
10013-3799

**LH-161171  
10-11;2023**

**Acc.Id:** 66275  
**Name:** POTESTA &  
ASSOCIATES  
**Phone:** 304-342-1400  
**Address:** 7012 MACCORKLE AVE  
SE  
**City:** CHARLESTON  
**State:** WV  
**Postcode:** 25304  
**Class:** 9010 Legal Notices  
**Edition:** WDN  
**Start:** 10/11/2023  
**Stop:** 10/11/2023  
**Issues:** 1  
**Units:** 82.0  
**Order ID:** HC 161171  
**TFN:** C  
**TFN cycle:**  
**Rep:** EQUEN  
**Status:** CF  
**Source:** EM  
**Paytype:** BI  
**Rate:** LG  
**Cost EXC** 40.50  
**GST:**  
**Tax:** 0.00  
**Total Charge:** 40.50  
**Printed on:** 10/05/2023 16:21:05  
**Printed by:** EQUEN





Kessler, Joseph R <joseph.r.kessler@wv.gov>

---

## RE: R13-3622 Permit Application Status

1 message

---

Patrick E. Ward <PEWard@potesta.com>

Tue, Oct 3, 2023 at 2:01 PM

To: "Kessler, Joseph R" <joseph.r.kessler@wv.gov>, "adam@tgds.com" <adam@tgds.com>

Cc: "Ronald R. Potesta" <RRPotesta@potesta.com>, "Rhonda L. Henson" <rlhenson@potesta.com>

Please see the attached revised permit application. This is the redacted version of the application. We will place the legal advertisement in the newspaper and send the affidavit to you when received.

We are also delivering a revised confidential version of the application to the office in Charleston.

Let us know if you have any questions.

Regards,

Patrick Ward

Potesta & Associates, Inc.

7012 MacCorkle Avenue, S.E.

Charleston, West Virginia 25304

Ph: (304) 342-1400

Direct: (304) 414-4751

Fax: (304) 343-9031

This electronic communication and its attachments contain confidential information. The recommendations and/or design data included herein are provided as a matter of convenience and should not be used for final design or ultimate decision making. Rely only on the final hardcopy materials bearing the consultant's original signature and seal. If you have received this information in error, please notify the sender immediately.

---

**From:** Kessler, Joseph R <joseph.r.kessler@wv.gov>

**Sent:** Friday, July 28, 2023 10:20 AM

**To:** adam@tgds.com

**Cc:** Patrick E. Ward <PEWard@potesta.com>

**Subject:** R13-3622 Permit Application Status

**Caution:** This is an external email and has a suspicious subject or content. Please take care when clicking links or opening attachments. When in doubt, contact your IT Department

**Application Status: Incomplete****Transgas Development Systems, LLC****Ammonia Production Facility****Facility ID No. 059-00102****Application No. R13-3622**

Dear Mr. Victor:

Your application for the above project was received by the Division of Air Quality (DAQ) on June 30, 2023 and assigned to the writer for review. Upon an initial review of the application, it has been determined that the following items need to be addressed prior to the application being deemed complete:

1. An additional permit application fee of \$1,000 is required for the applicability of 40 CFR 60, Subpart JJJJ to the proposed emergency generators [§45-22-3.4(b)]; and
2. The affidavit of publication for the required Class I Legal Advertisement has not been submitted (or other verification that the legal advertisement ran).

It is also the understanding of the DAQ that some of the engineering of the proposed facility is being reviewed and this might result in some revisions to the permit application. Therefore, the application status is currently designated as incomplete.

It is important to note that submission of the items listed above shall not relieve the permit applicant of the requirement to subsequently submit, in a timely manner, any additional or corrected information deemed necessary for a final permit determination. Should you have any questions, please contact me at (304) 926-0499 ext. 41271.

Thank You,

--

**Joe Kessler, PE**

Engineer

West Virginia Division of Air Quality

601-57th St., SE

Charleston, WV 25304

Phone: (304) 926-0499 x41271

[Joseph.r.kessler@wv.gov](mailto:Joseph.r.kessler@wv.gov)

**REV. REDACTED R13 Permit Application - Ammonia Prod. Facility -TransGas (22-0132-001).pdf**  
9582K



Kessler, Joseph R &lt;joseph.r.kessler@wv.gov&gt;

---

## R13-3622 Permit Application Status

1 message

---

**Kessler, Joseph R** <joseph.r.kessler@wv.gov>

Fri, Jul 28, 2023 at 10:19 AM

To: adam@tgds.com

Cc: Patrick Ward &lt;peward@potesta.com&gt;

**Application Status: Incomplete****Transgas Development Systems, LLC****Ammonia Production Facility****Facility ID No. 059-00102****Application No. R13-3622**

Dear Mr. Victor:

Your application for the above project was received by the Division of Air Quality (DAQ) on June 30, 2023 and assigned to the writer for review. Upon an initial review of the application, it has been determined that the following items need to be addressed prior to the application being deemed complete:

1. An additional permit application fee of \$1,000 is required for the applicability of 40 CFR 60, Subpart JJJJ to the proposed emergency generators [§45-22-3.4(b)]; and
2. The affidavit of publication for the required Class I Legal Advertisement has not been submitted (or other verification that the legal advertisement ran).

It is also the understanding of the DAQ that some of the engineering of the proposed facility is being reviewed and this might result in some revisions to the permit application. Therefore, the application status is currently designated as incomplete.

It is important to note that submission of the items listed above shall not relieve the permit applicant of the requirement to subsequently submit, in a timely manner, any additional or corrected information deemed necessary for a final permit determination. Should you have any questions, please contact me at (304) 926-0499 ext. 41271.

Thank You,

--

**Joe Kessler, PE**

Engineer

West Virginia Division of Air Quality

601-57th St., SE

Charleston, WV 25304

Phone: (304) 926-0499 x41271

[Joseph.r.kessler@wv.gov](mailto:joseph.r.kessler@wv.gov)



Kessler, Joseph R &lt;joseph.r.kessler@wv.gov&gt;

## WV DAQ Permit Application Status for Transgas Development Systems, LLC; Ammonia Production Facility

1 message

**Mink, Stephanie R** <stephanie.r.mink@wv.gov>

Wed, Jul 5, 2023 at 11:20 AM

To: "adam@tgds.com" &lt;adam@tgds.com&gt;, "Patrick E. Ward" &lt;PEWard@potesta.com&gt;

Cc: "McKeone, Beverly D" &lt;beverly.d.mckeone@wv.gov&gt;, Joseph R Kessler &lt;joseph.r.kessler@wv.gov&gt;, Kimberly A Scott &lt;kimberly.a.scott@wv.gov&gt;, Catherine L Harless &lt;Catherine.L.Harless@wv.gov&gt;, Barbara A Miles &lt;barbara.a.miles@wv.gov&gt;

### Application Status

**Transgas Development Systems, LLC; Ammonia Production Facility****Facility ID No. 059-00102****Application No. R13-3622**

Mr. Victor:

Your application for a Construction Permit for the Ammonia Production Facility was received by this division on June 30, 2023, and was assigned to Joe Kessler. The following items were not included in the initial application submittal:

**Copy of Class I legal advertisement affidavit.**

### Hard Copy of Confidential Business Information

- *Please submit a hard copy of the Confidential Business Information to:*  
WVDEP - DAQ - Permitting  
ATTN: NSR Permitting Secretary  
601 57th Street, SE  
Charleston, WV 25304

### Application fee of \$1,000.00.

- *Credit card payments may be made by contacting the Accounts Receivable section at 304-926-0499 x 41195. DEP accepts Visa and MasterCard only. Please be ready to provide the Facility ID and Application Number when calling.*

*These items are necessary for the assigned permit writer to continue the 30-day completeness review.*

Within 30 days, you should receive notification from Joe Kessler stating the status of the permit application and, if complete, given an estimated time frame for the agency's final action on the permit.

Any determination of completeness shall not relieve the permit applicant of the requirement to subsequently submit, in a timely manner, any additional or corrected information deemed necessary for a final permit decision.



7/5/23, 1:15 PM

State of West Virginia Mail - WV DAQ Permit Application Status for Transgas Development Systems, LLC; Ammonia Production Fa...

Should you have any questions, please contact the assigned engineer, Joe Kessler, at 304-926-0499, extension 41271.

--

## Stephanie Mink

Environmental Resources Associate

West Virginia Department of Environmental Protection

Division of Air Quality, Title V Permitting

601 57<sup>th</sup> Street SE

Charleston, WV 25304

Phone: 304-926-0499 x41281



Kessler, Joseph R &lt;joseph.r.kessler@wv.gov&gt;

---

**Re: Request for extension of comment period for R13-3622**

1 message

**Kessler, Joseph R** <joseph.r.kessler@wv.gov>

Thu, Jan 11, 2024 at 7:16 AM

To: James Kotcon &lt;jkotcon@gmail.com&gt;

Cc: Laura M Crowder &lt;laura.m.crowder@wv.gov&gt;, Beverly D McKeone &lt;beverly.d.mckeone@wv.gov&gt;

Mr. Kotcon, please see the attached response to your request for an extension of the open comment period concerning:

**Transgas Development Systems, LLC****Ammonia Production Facility****Facility ID No. 059-00102****Application No. R13-3622**

Thank You,

--

**Joe Kessler, PE**

Engineer

West Virginia Division of Air Quality

601-57th St., SE

Charleston, WV 25304

Phone: (304) 926-0499 x41271

[Joseph.r.kessler@wv.gov](mailto:joseph.r.kessler@wv.gov)

On Sat, Jan 6, 2024 at 7:48 PM James Kotcon <jkotcon@gmail.com> wrote:

See attached letter.

Jim Kotcon

**Response to SC comments Signed.pdf**

164K



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**west virginia** department of environmental protection

---

Division of Air Quality  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
Phone: (304) 926-0475

Harold D. Ward, Cabinet Secretary  
[dep.wv.gov](http://dep.wv.gov)

January 10, 2024

Mr. Jim Kotcon, Chair  
West Virginia Chapter of the Sierra Club  
PO Box 4142  
Morgantown, WV 26504

**RE: Response to Extension Request**  
TransGas Development Systems, LLC  
Ammonia Production Facility  
Permit No. R13-3622  
Plant ID No. 059-00102

Dear Mr. Kotcon:

On January 6, 2024, the West Virginia Division of Air Quality (DAQ) received an e-mailed letter from you requesting an extension of the public comment period concerning TransGas Development Systems, LLC's (TransGas') proposed Ammonia Production Facility located in Mingo County, WV. The public notice for this permitting action was scheduled to run on January 3, 2024 and the open comment period will run through 5:00PM on February 2, 2024. After a careful consideration of your request, and an examination of the specifics of your request, the DAQ has made the determination that an extension of the February 2, 2024 date is not warranted based on the reasons you provide. The basis for this determination is given below.

The statutory authority governing the review and determination of a permit application concerning a minor source of air pollution is given under WV Legislative Rule 45CSR13. There is no support in the statutory language of 45CSR13 (or under the Air Pollution Control Act - West Virginia Code §22-5-1) for an extension of a public comment period for considerations that are beyond either the primary air impacts of the source in question, or beyond the scope of the applicable air quality rules and regulations. In this case, your provided reasons for requesting an extension are beyond both of these thresholds.

While the issues you raise are important (CCS, ammonia pipelines, sources of methane), these are all beyond the scope of the air quality permitting process (see specifically page 2 of the Engineering Evaluation for a discussion on possible use of CCS) and, therefore, additional time to study them would not provide any benefit under this permitting process.

**Promoting a healthy environment.**

Additionally, it is important to note, that while the potential issuance of an air quality permit for the proposed facility would fulfill the permitting obligations under 45CSR13 and §22-5-1, the issuance of this permit would not trump any other applicable requirements or agreements (such as the ARCH2 requirements for funding) relevant to the facility. Any violation of those requirements or agreements would be subject to the relevant authority of the bodies involved in those agreements.

Should you have any questions concerning the above, please contact Permit Engineer Joe Kessler at (304) 926-0499 x41271.

Sincerely,

Laura M. Crowder

Digitally signed by: Laura M. Crowder  
DN: CN = Laura M. Crowder email = Laura.M.  
Crowder@wv.gov C = US O = WV Department of  
Environmental Protection OU = Division of Air Quality  
Date: 2024.01.10 17:18:52 -0500

Laura M. Crowder  
Director

Ad Number 165831

**Affidavit of Legal Publication and Posting**

**STATE OF WEST VIRGINIA**

**COUNTY OF Mingo, TO-WIT**

I Linda Smith, Classified Advertising

Representative of the The Williamson Daily News, a newspaper published in the county of Mingo, West Virginia, hereby certify that the annexed publication was inserted in said newspaper \_\_\_\_\_

The cost of publishing said annexed advertisement as aforesaid was \$ 64.00

Commencing On: 01/03/2024

Ending On: 01/03/2024

Given under my hand this day 01/03/2024

Sworn to and subscribed before me 01/03/2024 at Williamson, Mingo County, West Virginia

Linda Smith

Notary Public of, in and for Mingo County, West Virginia

MY COMMISSION EXPIRES: Jan. 3, 2028

Lee Ann Welch



**AIR QUALITY  
PERMIT NOTICE**

**Notice of Open  
Comment Period**

On June 30, 2023, TransGas Development Systems, LLC applied to the WV Department of Environmental Protection, Division of Air Quality (DAQ) for a construction permit to build an Ammonia Production Facility located off of Right Fork Ben's Creek Road near Wharmcliffe, Mingo County, WV, at latitude 37.61577 and longitude 81.92736. A preliminary evaluation has determined that all State and Federal air quality requirements will be met by the proposed construction. The DAQ is providing notice to the public of an open comment period for Permit Application RL3 3622.

The following potential emissions will be authorized by this permit action: Carbon Monoxide, 13.39 tons per year (TPY); Oxides of Nitrogen, 52.52 TPY; Particulate Matter less than 2.5 microns, 0.40; Particulate Matter less than 10 microns, 0.40 TPY; Particulate Matter, 0.40 TPY; Sulfur Dioxide, 0.18 TPY; Volatile Organic Compounds, 0.55 TPY; and Hazardous Air Pollutants, 0.27 TPY.

Written comments or requests for a public meeting must be received by the DAQ before 5:00 p.m. on Friday, February 2, 2024. A public meeting may be held if the Director of the DAQ determines that significant public interest has been expressed, in writing, or when the Director deems it appropriate.

The purpose of the DAQ's permitting process is to make a preliminary determination if the proposed construction will meet all State and Federal air quality requirements. The purpose of the public review process is to accept public comments on air quality issues relevant to this determination. Only written comments received at the address noted below within the specified time frame, or comments accepted at

**Acc.Id:** 69164  
**Name:** AIR QUALITY--WV DEP  
**Phone:** 304-926-0499  
**Address:** 601 57TH ST SE  
**City:** CHARLESTON  
**State:** WV  
**Postcode:** 25304  
**Class:** 9010 Legal Notices  
**Edition:** WDN  
**Start:** 01/03/2024  
**Stop:** 01/03/2024  
**Issues:** 1  
**Units:** 129.0  
**Order ID:** HC 165831  
**TFN:** C  
**TFN cycle:**  
**Rep:** LSMITH23  
**Status:** CF  
**Source:** EM  
**Paytype:** BI  
**Rate:** LG  
**Cost EXC:** 64.00  
**GST:**  
**Tax:** 0.00  
**Total Charge:** 64.00  
**Printed on:** 12/21/2023 14:03:48  
**Printed by:** LSMITH23

Comments presented orally at a scheduled public meeting will be considered prior to final action on the permit. All such comments will become part of the public record.

Joe Kessler, PE  
Engineer  
WV Department of  
Environmental  
Protection  
Division of Air Quality  
601 57th Street, SE  
Charleston, WV 25304  
Telephone:  
304/926-0499,  
ext. 41271  
Email:  
**joseph.r.kessler  
@wv.gov**

Additional information, including copies of the draft permit, application, and all other supporting materials relevant to the permit decision may be obtained by contacting the engineer listed above. The draft permit and engineering evaluation may also be downloaded at:

**<https://dep.wv.gov/daq/permitting/Pages/NSR-Permit-Applications.aspx>**

**LH-165831  
01-03;2024**







Kessler, Joseph R <joseph.r.kessler@wv.gov>

---

## Request for extension of comment period for R13-3622

---

**James Kotcon** <jkotcon@gmail.com>  
To: Laure.m.crowder@wv.gov  
Cc: Joseph.R.Kessler@wv.gov

Sat, Jan 6, 2024 at 7:48 PM

See attached letter.

Jim Kotcon

---

 **SC Request For Comment Extension-Adams Fork-1-28-24.doc**  
45K



## West Virginia Chapter

P.O. Box 4142  
Morgantown, WV 26504

Jan. 8, 2024

Laura Crowder, Director  
WV-DEP, Division of Air Quality  
601 57th Street, SE  
Charleston, WV 25304-234

Via e-mail to: <[laura.m.crowder@wv.gov](mailto:laura.m.crowder@wv.gov)>

RE: Request for extension of the comment period for Permit R13-3622 for TransGas Development Systems, LLC Ammonia Production Facility.

Dear Director Crowder:

On behalf of the approximately 2600 members of the West Virginia Chapter of Sierra Club, we request an extension of the comment period for the draft permit for the Adams Fork, Transgas ammonia facility in Mongo County. The proposed facility is identified as an “anchor” for the ARCH2 hydrogen hub in West Virginia, and proposes to use carbon capture and sequestration to reduce emissions of greenhouse gases. However, the draft permit has fragmented the regulatory process to the point that most of the issues of greatest concern are not addressed.

We note that the ARCH2 hub is in very early stages of development, and contracts for funding from US-DOE have not yet been finalized, so there is no clear identification of which facilities will move forward. Furthermore, the ARCH2 process requires a “Community Benefits Plan”, as well as full analysis of impacts through the Environmental Impact Statement (EIS) process pursuant to NEPA. We note that the EIS process provides exactly the kind of integrated analysis and interdisciplinary assessment that is explicitly lacking in a piecemeal permitting process, such as R13-3622. In fact, NEPA explicitly precludes irreversible and irretrievable commitments before an EIS is completed.

We therefore request that the permit be delayed until a Final EIS has been completed. We recognize that WV-DEP has regulatory deadlines to complete the permit, however, we hope you would request that the applicant voluntarily waive those deadlines so that the EIA and Community Benefits Plan can be completed.

In the event that the comment period cannot be delayed until the EIS is complete, we request at a minimum, a 60-day extension of the comment period. The proposed facility, with its methane sources, ammonia pipelines, transportation and delivery infrastructure, and especially the proposed Carbon Capture and Sequestration systems are too complex to be adequately addressed in the short period proposed by WV-DEP. Citizens need time to understand the

proposed facility, and fully evaluate the emissions and risks, in order to provide meaningful comments to WV-DEP. Given that the ARCH 2 process will have delays of over a year before facilities receive funding, there is no rational basis for rushing this through.

Thank you for considering this request, and we appreciate your commitment to public participation.

Sincerely,

A handwritten signature in cursive script that reads "James Kotcon".

James Kotcon  
Chair, West Virginia Chapter  
304-594-3322 (home)  
304-293-8822 (office)  
[jkotcon@gmail.com](mailto:jkotcon@gmail.com)

cc:

Joe Kessler, Engineer [Joseph.R.Kessler@wv.gov](mailto:Joseph.R.Kessler@wv.gov)



Kessler, Joseph R &lt;joseph.r.kessler@wv.gov&gt;

## WV Draft Permit R13-3622 for TransGas Development Systems, LLC; Ammonia Production Facility

1 message

**Mink, Stephanie R** <stephanie.r.mink@wv.gov> Thu, Dec 28, 2023 at 11:17 AM  
To: "Supplee, Gwendolyn" <supplee.gwendolyn@epa.gov>, Weinelt.Eva@epa.gov, Adam Victor <adam@tgds.com>, "Patrick E. Ward" <PEWard@potesta.com>  
Cc: "Crowder, Laura M" <Laura.M.Crowder@wv.gov>, "McKeone, Beverly D" <Beverly.D.Mckeone@wv.gov>, "McCumbers, Carrie" <Carrie.McCumbers@wv.gov>, Nicole D Ernest <nicole.d.ernest@wv.gov>, "Kessler, Joseph R" <joseph.r.kessler@wv.gov>, "Johnson, Rebecca H" <Rebecca.H.Johnson@wv.gov>, Michael T Rowe <michael.t.rowe@wv.gov>

Please find attached the Draft Permit R13-3622, Engineering Evaluation and Public Notice for TransGas Development Systems, LLC's Ammonia Production Facility located in Mingo County.

The public notice will be published in *The Williamson Daily News* on Wednesday, January 3, 2024 and the thirty day comment period will end on Friday, February 2, 2024.

Should you have any questions or comments, please contact the permit writer, Joe Kessler, at 304-926-0499 ext. 41271 or [Joseph.R.Kessler@wv.gov](mailto:Joseph.R.Kessler@wv.gov).

--

### Stephanie Mink

Environmental Resources Associate

West Virginia Department of Environmental Protection

Division of Air Quality, Title V &amp; NSR Permitting

601 57<sup>th</sup> Street SE


Charleston, WV 25304

Phone: 304-926-0499 x41281

---

### 3 attachments

 **059-00102\_DRAFT\_13-3622.pdf**  
248K

 **059-00102\_EVAL\_13-3622 (signed).pdf**  
1624K

 **13-3622 Public Notice.pdf**  
73K

*West Virginia Department of Environmental Protection*

*Harold D. Ward*

*Cabinet Secretary*

# Permit to Construct



**R13-3622**

*This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45 C.S.R. 13 — Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the facility listed below is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.*

Issued to:

**TransGas Development Systems, LLC**  
**Ammonia Production Facility**  
**059-00102**

---

*Laura M. Crowder*  
*Director, Division of Air Quality*

Issued: **DRAFT**

*This permit will supercede and replace Permit R13-2791A issued on August 5, 2011.*

Facility Location: Near Wharncliffe, Mingo County, West Virginia  
Mailing Address: 630 First Avenue, New York, NY 10016-3799  
Facility Description: Ammonia Production Facility  
SIC/NAICS Code: 2873/325311  
UTM Coordinates: 418.156 km Easting • 4,163.591 km Northing • Zone 17  
Latitude/Longitude: 37.61577/-81.92736  
Permit Type: Construction  
Desc. of Change: Construction of six (6) identical 6,000 metric tons/day (MTPD) ammonia manufacturing plants on the site of the previously permitted (but not constructed) coal-to-gasoline facility (Permit Number R13-2791A).

*Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.*

---

*The source is not subject to 45CSR30.*

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**1.0 Emission Units<sup>(1)</sup>**

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
1S-X	2E-X	Feed Purification	2024	6,000 metric tons/day	Process Flare <sup>(2)</sup> (2C-X)
2S-X	2E-X	Reformer Section	2024		
3S-X	2E-X	ATR Section	2024		
4S-X	2E-X	CO Conversion Section	2024		
5S-X	2E-X	Nitrogen Wash Unit	2024		
6S-X	2E-X	CO <sub>2</sub> Removal Section	2024		
7S-X	2E-X	Ammonia Loop	2024		
8S-X	1E-X	Startup Steam Generator	2024	5.15 mmBtu/hr	SCR <sup>(3)</sup> (1C-X)
9S-X	1E-X	Pre-Heater	2024	14.30 mmBtu/hr	
10S-X	1E-X	Super-Heater	2024	1,332.7 mmBtu/hr	
11S-X	4E-X	Startup & Emergency Generator	2024	1,451 horsepower	None

- (1) The facility will be made up of up to six (6) identical production plants, each with the emission units as listed below. Individual plant emission unit and emission point identification numbers will be as given above with the designation of 1 - 6 as applicable where the “X” is located.
- (2) The Process Flare is only utilized during startup/shutdown cycles and during steady-state plant operations there are no emissions from these units.
- (3) These units vent to the SCR during both startup and steady-state operations.



## 2.0. General Conditions

### 2.1. Definitions

- 2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45 CSR § 30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

### 2.2. Acronyms

<b>CAAA</b>	Clean Air Act Amendments		Standards for Hazardous Air
<b>CBI</b>	Confidential Business		Pollutants
	Information	<b>NO<sub>x</sub></b>	Nitrogen Oxides
<b>CEM</b>	Continuous Emission	<b>NSPS</b>	New Source Performance
	Monitor		Standards
<b>CES</b>	Certified Emission Statement	<b>PM</b>	Particulate Matter
<b>C.F.R. or CFR</b>	Code of Federal Regulations	<b>PM<sub>2.5</sub></b>	Particulate Matter less than
<b>CO</b>	Carbon Monoxide		2.5µm in diameter
<b>C.S.R. or CSR</b>	Codes of State Rules	<b>PM<sub>10</sub></b>	Particulate Matter less than
<b>DAQ</b>	Division of Air Quality		10µm in diameter
<b>DEP</b>	Department of	<b>Ppb</b>	Pounds per Batch
	Environmental Protection	<b>pph</b>	Pounds per Hour
<b>dscm</b>	Dry Standard Cubic Meter	<b>ppm</b>	Parts per Million
<b>FOIA</b>	Freedom of Information Act	<b>Ppmv or</b>	Parts per million by
<b>HAP</b>	Hazardous Air Pollutant	<b>ppmv</b>	volume
<b>HON</b>	Hazardous Organic NESHAP	<b>PSD</b>	Prevention of Significant
<b>HP</b>	Horsepower		Deterioration
<b>lbs/hr</b>	Pounds per Hour	<b>psi</b>	Pounds per Square Inch
<b>LDAR</b>	Leak Detection and Repair	<b>SIC</b>	Standard Industrial
<b>M</b>	Thousand		Classification
<b>MACT</b>	Maximum Achievable	<b>SIP</b>	State Implementation Plan
	Control Technology	<b>SO<sub>2</sub></b>	Sulfur Dioxide
<b>MDHI</b>	Maximum Design Heat Input	<b>TAP</b>	Toxic Air Pollutant
<b>MM</b>	Million	<b>TPY</b>	Tons per Year
<b>MMBtu/hr or</b>	Million British Thermal	<b>TRS</b>	Total Reduced Sulfur
	Units	<b>TSP</b>	Total Suspended Particulate
<b>mmbtu/hr</b>	per Hour	<b>USEPA</b>	United States Environmental
<b>MMCF/hr or</b>	Million Cubic Feet per Hour		Protection Agency
<b>mmcf/hr</b>		<b>UTM</b>	Universal Transverse
<b>NA</b>	Not Applicable		Mercator
<b>NAAQS</b>	National Ambient Air	<b>VEE</b>	Visual Emissions Evaluation
	Quality Standards	<b>VOC</b>	Volatile Organic Compounds
<b>NESHAPS</b>	National Emissions	<b>VOL</b>	Volatile Organic Liquids

### **2.3. Authority**

This permit is issued in accordance with West Virginia Air Pollution Control Law W.Va. Code §§22-5-1 et seq. and the following Legislative Rules promulgated thereunder:

- 2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation.*

### **2.4. Term and Renewal**

- 2.4.1. This permit supercedes and replaces previously issued Permit R13-2791A. This permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any applicable legislative rule.

### **2.5. Duty to Comply**

- 2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-3622, and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to;  
**[45CSR§§13-5.10 and 13-10.3]**
- 2.5.2. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA;
- 2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;
- 2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses and/or approvals from other agencies; i.e., local, state and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

### **2.6. Duty to Provide Information**

The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for administratively updating, modifying, revoking or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

**2.7. Duty to Supplement and Correct Information**

Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

**2.8. Administrative Update**

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.

[45CSR§13-4]

**2.9. Permit Modification**

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.

[45CSR§13-5.4.]

**2.10. Major Permit Modification**

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.

[45CSR§13-5.1]

**2.11. Inspection and Entry**

The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

- a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
- d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

**2.12. [Reserved]**

### **2.13. Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for a permittee in an enforcement action that it should have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

### **2.14. Suspension of Activities**

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

### **2.15. Property Rights**

This permit does not convey any property rights of any sort or any exclusive privilege.

### **2.16. Severability**

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

### **2.17. Transferability**

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. [45CSR§13-10.1]

### **2.18. Notification Requirements**

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

### **2.19. Credible Evidence**

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

### 3.0. Facility-Wide Requirements

#### 3.1. Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.  
**[45CSR§6-3.1.]**
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.  
**[45CSR§6-3.2.]**
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.  
**[40CFR§61.145(b) and 45CSR§34]**
- 3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.  
**[45CSR§4-3.1 State-Enforceable only.]**
- 3.1.5. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.  
**[45CSR§13-10.5.]**
- 3.1.6. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45 C.S.R. 11.  
**[45CSR§11-5.2.]**

#### 3.2. Monitoring Requirements

- 3.2.1. **Emission Limit Averaging Time.** Unless otherwise specified, compliance with all annual limits shall be based on a rolling twelve month total. A rolling twelve month total shall be the sum of the measured parameter of the previous twelve calendar months. Compliance with all hourly emission limits shall be based on the applicable NAAQS averaging times or, where applicable, as given in any approved performance test method.

### 3.3. Testing Requirements

- 3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary 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. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:
- a. 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 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.
  - b. 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 may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.
  - c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.
  - d. The permittee shall submit a report of the results of the stack test within sixty (60) days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1.; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:
    1. The permit or rule evaluated, with the citation number and language;
    2. The result of the test for each permit or rule condition; and,
    3. A statement of compliance or noncompliance with each permit or rule condition.

**[WV Code § 22-5-4(a)(14-15) and 45CSR13]**

### 3.4. Recordkeeping Requirements

- 3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.
- 3.4.2. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.  
**[45CSR§4. State-Enforceable only.]**

### 3.5. Reporting Requirements

- 3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
- 3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
- 3.5.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class or by private carrier with postage prepaid to the address(es), or submitted in electronic format by email as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

**If to the DAQ:**

Director  
WVDEP  
Division of Air Quality  
601 57th Street, SE  
Charleston, WV 25304-2345

**DAQ Compliance and Enforcement<sup>1</sup>:**  
**DEPAirQualityReports@wv.gov**

**If to the US EPA:**

Section Chief, USEPA, Region III  
Enforcement and Compliance  
Assurance Division  
Air Section (3ED21)  
Four Penn Center  
1600 John F Kennedy Blvd  
Philadelphia, PA 19103-2852

<sup>1</sup> For all self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols, notice of Compliance Status Reports, Initial Notifications, etc.

3.5.4. **Operating Fee.**

- 3.5.4.1. In accordance with 45CSR22 – Air Quality Management Fee Program, the permittee shall not operate nor cause to operate the permitted facility or other associated facilities on the same or contiguous sites comprising the plant without first obtaining and having in current effect a Certificate to Operate (CTO). Such Certificate to Operate (CTO) shall be renewed annually, shall be maintained on the premises for which the certificate has been issued or accessible/available electronically for review from the premises by company representatives when at the location, and shall be made available within a reasonable time for inspection by the Secretary or his/her duly authorized representative.
- 3.5.4.2. In accordance with 45CSR§22.4 – Air Quality Management Fee Program, newly permitted facilities will be sent an Application for a Certificate to Operate (CTO). The CTO will cover the time period beginning with the date of initial startup through the following June 30. Said application and the appropriate fee should be submitted to this office at least 30 days prior to the date of initial startup to allow adequate time for processing. For any startup date other than July 1, the permittee shall pay a fee or prorated fee in accordance with Section 4.5 of 45CSR22.
- 3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.



## 4.0. Source-Specific Requirements

### 4.1. Limitations and Standards

4.1.1. Only those emission units/sources as identified in Table 1.0, with the exception of any *de minimis* sources as identified under Table 45-13B of 45CSR13, are authorized at the permitted facility by this permit. In accordance with the information filed in Permit Application R13-3622, the emission units/sources identified under Table 1.0 of this permit shall be installed, maintained, and operated so as to minimize any fugitive escape of pollutants, shall not exceed the listed maximum design capacities, shall use the specified control devices, and comply with any other information provided under Table 1.0.

#### 4.1.2. Production Limits

The permittee is authorized to construct and operate up to six (6) ammonia production plants at the site. The production of ammonia (CAS# 67-56-1) from the facility shall not exceed 6,000 metric tons-ammonia/plant/day or 2,190,000 tons/plant/year. The feedstock natural gas shall not exceed 70,992.5 mmscf/plant/year.

#### 4.1.3. Plant Operating Modes

Each plant shall operate in one of three (3) modes: (1) Startup, (2) Shutdown, and (3) Steady-state. Each mode shall be defined in the following:

a. In startup mode, the plant is transitioning from fully shutdown to operating in steady-state mode, and the following conditions will occur:

- (1) The Startup Steam Generator (8S-X) may operate while combusting ammonia;
- (2) The Pre-Heater (9S-X) and Super-Heater (10S-X) may operate and combust natural gas, process gas, and hydrogen while transitioning to combusting only hydrogen during steady-state mode; and
- (3) All excess process gas not combusted in the heaters shall be sent to the Process Flare (2C-X) for combustion. For the purposes of this permit, process gases do not include any process heater combustion exhaust, air, nitrogen, steam, or any other non-pollutant entrained gas stream.

b. In steady-state mode, the plant is producing ammonia product, and the following conditions will occur:

- (1) The Pre-Heater (9S-X) and Super Heater (10S-X) may operate and combust only hydrogen and a trace amount of natural gas for flame detection purposes; and
- (2) No process gases shall be released (or sent to the Process Flare for destruction).

c. In shutdown mode, the plant is transitioning from operating in steady-state mode to fully shutdown, and the following conditions will occur:

- (1) The Pre-Heater (9S-X) and Super Heater (10S-X) cease operation; and
- (2) All remaining process gases are sent to the Process Flare (2C-X) for combustion.

- d. The permittee shall not exceed six (6) startup cycles and six (6) shutdown cycles on a facility-wide basis (from all plants) per rolling twelve (12) month period.

4.1.4. **Startup Steam Generators**

Each Startup Steam Generator, identified as 8S-X, shall meet the following requirements:

- a. Each unit shall not exceed an MDHI of 5.15 mmBtu/hr, shall only be fired by ammonia, shall only operate during startup mode, and shall utilize Selective Catalytic Reduction (SCR) (1C-X) for control of NO<sub>x</sub> emissions; and
- b. During one startup cycle, each unit shall not consume in excess of 155,327 lbs of ammonia.

4.1.5. **Process Heaters**

The Pre-Heaters and Super-Heaters, identified as 9S-X and 10S-X, respectively, shall meet the following requirements:

- a. Each Pre-Heater shall not exceed an MDHI of 14.30 mmBtu/hr and shall only combust the fuels as specified under 4.1.3. above, and shall utilize SCR (1C-X) for control of NO<sub>x</sub> emissions during all modes of operation; and
- b. Each Super-Heater shall not exceed an MDHI of 1,332.7 mmBtu/hr and shall only combust the fuels as specified under 4.1.3. above, and shall utilize SCR (1C-X) for control of NO<sub>x</sub> emissions during all modes of operation.

4.1.6. **SCRs**

The use of Selective Catalytic Reduction (SCR) shall be in accordance with the following:

- a. The SCR shall be designed, operated and maintained according to good engineering practices and manufacturing recommendations so as to achieve, at a minimum, a vendor guaranteed (based on specific plant operating conditions) 99.00% control of NO<sub>x</sub> emissions vented to it;
- b. The permittee shall maintain the proper temperature profile for NO<sub>x</sub> removal and shall operate the SCR in the optimal aqueous/anhydrous ammonia injection range as determined according to manufacturer recommendations or during the required performance testing; and
- c. The emission limits from the SCR emission points, identified as 2E-X, shall not exceed the following:

**Table 4.1.6(c): SCR Main Plant Stack Emission Limits**

Pollutant	PPH <sup>(1)</sup>		TPY <sup>(2)</sup>
	Startup	Steady-State	
CO	19.82	0.02	1.14
NO <sub>x</sub>	1.26	1.54	40.28
PM <sub>2.5</sub> /PM <sub>10</sub> /PM	9.23	0.02	0.24
SO <sub>2</sub>	0.05	0.02	0.24
VOCs	6.68	0.02	0.24
HAPs	2.29	0.02	0.24

(1) Maximum per each individual SCR Main Plant Stack.

(2) Aggregate facility-wide limit from all SCR Main Plant Stacks during all operational modes.

**4.1.7. Process Flares**

The Process Flares, identified as 2C-X, shall operate according to the following requirements:

- a. The units shall be non-assisted, shall not exceed a design capacity of 216,273 scf/min, and shall be designed and operated according to the requirements specified in 40 CFR 60, Section §60.18;
- b. Each unit shall be operated at all times when process gases are vented to it and shall not combust in excess of an 260 mmft<sup>3</sup> of process gases per each startup or 19.6 mmft<sup>3</sup> of process gases per each shutdown. Process gases sent to the flare shall be made up primarily of hydrogen, carbon monoxide, carbon dioxide, methane, nitrogen, and shall not exceed sulfur compounds in excess of 100 ppb (v/v);
- c. Each unit shall be designed, operated, and maintained according to good engineering practices or manufacturing recommendations so as to achieve, at a minimum, a carbon monoxide and hydrocarbon combustion rate of 98.5%. The permittee shall operate and maintain the flare according to the manufacturer's specifications for operating and maintenance requirements to maintain the minimum guaranteed control efficiency listed under 4.1.7(b);
- d. Each unit shall be operated with a flame present at all times when emissions are vented to it, as determined by the methods specified in 4.2.4(b) and the permittee shall monitor the flare in accordance with 4.2.4(b);
- e. The emission limits from flaring during plant startups shall not exceed the following:

**Table 4.1.7(e): Process Flare Startup Emission Limits**

Pollutant	PPH <sup>(1)</sup>	TPY <sup>(2)</sup>
CO	623.17	1.92
NO <sub>x</sub>	167.50	10.74
PM <sub>2.5</sub> /PM <sub>10</sub> /PM <sup>(3)</sup>	7.54	0.06
SO <sub>2</sub>	0.04	0.01
VOCs	5.46	0.03
HAPs	1.87	0.01

- (1) Maximum per each individual process flare.
- (2) Aggregate plant-wide limit from all flares during all startup cycles.
- (3) Includes Condensables.

f. The emission limits from flaring during plant shutdowns shall not exceed the following:

**Table 4.1.7(h): Process Flare Shutdown Emission Limits**

Pollutant	PPH <sup>(1)</sup>	TPY <sup>(2)</sup>
CO	9.93	0.03
NO <sub>x</sub>	178.72	0.53

- (1) Maximum per each individual process flare.
- (2) Aggregate plant-wide limit from all flares during all startup cycles.

g. **45CSR6**

The flare is subject to 45CSR6. The requirements of 45CSR6 include but are not limited to the following:

- (1) The permittee shall not cause, suffer, allow or permit particulate matter to be discharged from the flares into the open air in excess of the quantity determined by use of the following formula:

$$\text{Emissions (lb/hr)} = F \times \text{Incinerator Capacity (tons/hr)}$$

Where, the factor, F, is as indicated in Table I below:

**Table I:** Factor, F, for Determining Maximum Allowable Particulate Emissions

<u>Incinerator Capacity</u>	<u>Factor F</u>
A. Less than 15,000 lbs/hr	5.43
B. 15,000 lbs/hr or greater	2.72

**[45CSR§6-4.1]**

- (2) No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater.

**[45CSR6 §4.3]**

- (3) The provisions of subsection 4.3 shall not apply to smoke which is less than forty percent (40%) opacity, for a period or periods aggregating no more than eight (8) minutes per start-up, or six (6) minutes in any sixty (60)-minute period for stoking operations.  
**[45CSR6 §4.4]**
- (4) No person shall cause or allow the emission of particles of unburned or partially burned refuse or ash from any incinerator which are large enough to be individually distinguished in the open air.  
**[45CSR6 §4.5]**
- (5) Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.  
**[45CSR6 §4.6]**
- (6) Due to unavoidable malfunction of equipment, emissions exceeding those provided for in this rule may be permitted by the Director for periods not to exceed five (5) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.  
**[45CSR6 §8.2]**

4.1.8. **Emergency Generators**

The Startup & Emergency Generators, identified as 11S-X, shall meet the following requirements:

- a. Each unit shall be a Cummins Model C1000N6B, shall not exceed 1,451 hp, shall be fired only with natural gas, and shall not operate in excess of 100 hours per year during times not defined as emergencies;
- b. The maximum emissions from each Emergency Generator shall not exceed the limits given in the following table:

**Table 4.1.8(b): Startup & Emergency Generators Emission Limits**

<b>Pollutant</b>	<b>PPH</b>	<b>TPY</b>
<b>CO</b>	5.11	0.26
<b>NO<sub>x</sub></b>	3.20	0.16
<b>PM<sub>2.5</sub>/PM<sub>10</sub>/PM<sup>(1)</sup></b>	0.48	0.02
<b>SO<sub>2</sub></b>	0.01	0.01
<b>VOCs</b>	1.18	0.06
<b>HAPs</b>	0.78	0.04

(1) Includes condensables.

c. **40 CFR 60, Subpart JJJJ**

Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE.

**[40 CFR §60.4233(e)]**

**Table 1 to Subpart JJJJ of Part 60—NO<sub>x</sub>, CO, and VOC Emission Standards for Stationary Non-Emergency SI Engines ≥100 HP (Except Gasoline and Rich Burn LPG), Stationary SI Landfill/Digester Gas Engines, and Stationary Emergency Engines >25 HP**

Engine type and fuel	Maximum engine power	Manufacture date	Emission standards					
			g/HP-hr			ppmvd at 15% O <sub>2</sub>		
			NO <sub>x</sub>	CO	VOC <sup>(d)</sup>	NO <sub>x</sub>	CO	VOC <sup>(d)</sup>
Non-Emergency SI Natural Gas and Non-Emergency SI Lean Burn LPG (except lean burn 500=HP<1,350)	HP≥500	7/1/2010	1.0	2.0	0.7	82	270	60

(a) Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O<sub>2</sub>.

(d) For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

**[40 CFR60, Subpart JJJJ, Table 1]**

**d. 40 CFR 63, Subpart ZZZZ**

An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

**[40 CFR §63.6590(c)]**

**4.1.9. Fugitive Emissions**

The permittee shall mitigate the release of fugitive emissions according to the following requirements:

- a. The permittee shall, within 180 days of facility startup, submit a modification or Class II Administrative Update, as applicable pursuant 45CSR13, to revise the number and type of components (valves, pump seals, connectors, etc.) in gas/vapor or light liquid (as applicable) listed in Attachment N of Permit Application R13-3622 or any amendments or revisions submitted thereto if the as-built number of components results in calculated VOC or HAP emissions in excess of those given under Attachment N; and
- b. The permittee shall install, maintain, and operate all above-ground piping, valves, pumps, etc. that service lines in the transport of potential sources of regulated air pollutants to prevent any substantive fugitive escape of regulated air pollutants. Any above-ground piping, valves, pumps, etc. that shows signs of excess wear and that have a reasonable potential for substantive fugitive emissions of regulated air pollutants shall be replaced.

**4.1.10. Closed Vent Requirements**

The permittee shall meet the following requirements below for all piping systems designed to evacuate process gases to the Process Flares or Process Heaters for combustion:

- a. The permittee shall design and operate the closed vent system as determined following the procedures under 40 CFR 60, Subpart VVa for ongoing compliance;
- b. The permittee shall meet the requirements specified in (1) and (2) of this section if the closed vent system contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device or to a process;

- (1) Except as provided in paragraph (2) of this section, you must comply with either paragraph (i) or (ii) of this section for each bypass device.
  - (i) You must properly install, calibrate, maintain, and operate a flow indicator at the inlet to the bypass device that could divert the stream away from the control device or process to the atmosphere that sounds an alarm, or initiates notification via remote alarm to the nearest field office, when the bypass device is open such that the stream is being, or could be, diverted away from the control device or process to the atmosphere; or
  - (ii) You must secure the bypass device valve installed at the inlet to the bypass device in the non-diverting position using a car-seal or a lock-and-key type configuration.
- (2) Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to the requirements of paragraph (i) of this section. Pressure relief valves used to protect fluid tanks from overpressure are not subject to this section.

4.1.11. **Vendor Guarantees**

The permittee shall, at the time of initial startup, maintain on-site and have readily available to be made available to the Director or his/her representative upon request, a copy of the all current vendor guarantees relevant to the air emissions associated with the facility. This includes information relating to the performance of both emission units and control devices.

4.1.12. **Applicable Rules**

The permittee shall meet all applicable requirements, including those not specified above, as given under 45CSR6 and 40 CFR 60, Subpart JJJJ. Any final revisions made to the above rules will, where applicable, supercede those specifically cited in this permit.

4.1.13. **Operation and Maintenance of Air Pollution Control Equipment**

The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 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.

[45CSR§13-5.10]

**4.2. Monitoring, Compliance Demonstration, Recording and Reporting Requirements**

4.2.1. **Maximum Design Capacity Compliance**

Compliance with the maximum design capacity limitations as given under Table 1.0 and Section 4.1. shall be based, when available, on a clear and visible boilerplate rating or on product literature, manufacturer's data, or equivalent documentation that shows that the specific emission unit(s) or processing line in question is limited by design to a throughput or production rate (or bottlenecked to that capacity by another unit's design capacity) that does not exceed the specified value under Table 1.0 and Section 4.1. Where the above is not available, if requested by the Director, compliance shall be based on a reasonable demonstration that the listed quantity represents the maximum capacity of the unit/process under the plants normal operational configuration.

4.2.2. **Maximum Design Heat Input Compliance**

Compliance with the various combustion unit MDHI limitations as given under Table 1.0 and Section 4.1. shall be based on a clear and visible boilerplate rating or on product literature, manufacturer’s data, or equivalent documentation that shows that the specific emission unit(s) in question is limited by design to an MDHI that does not exceed the specified value under Table 1.0 and Section 4.1.

4.2.3. **Quantities Monitored/Recorded**

To determine continuous compliance with maximum production, throughputs, and other limits given under in 4.1 of the permit, the permittee shall monitor and record the following:

**Table 4.2.3: Facility Quantities Monitored/Recorded**

Quantity Monitored/Recorded	Emission Unit(s)	Measured Units
Natural Gas Feedstock	Per-Plant	mmscf/year
Ammonia Production	Per-Plant	tons/day <sup>(1)</sup>
	Facility Wide	tons/year
Startups	Facility Wide	Number of Events
Shutdowns	Facility Wide	Number of Events
Process Gas Combusted	Per-Process Flare/Startup	Volume (ft <sup>3</sup> )
	Per-Process Flare/Shutdown	Volume (ft <sup>3</sup> )
Non-Emergency Operation	Per-Generator	Hours

(1) Compliance with the daily plant ammonia production limit shall be determined by dividing the monthly production rate by the hours of operation for that same month and then multiplying the result by 24.

4.2.4. **Process Flares**

The permittee shall meet the following Monitoring, Compliance Demonstration, Recording and Reporting Requirements for the flare:

- a. To demonstrate compliance with 4.1.7(b), the permittee shall maintain records of the manufacturer's specifications for operating and maintenance requirements to maintain the minimum control efficiency;
- b. To demonstrate compliance with the flame requirements of 4.1.7(b) and (d), the presence of a pilot flame shall be continuously monitored using a thermocouple or any other equivalent device to detect the presence of a flame when emissions are vented to it. The pilot shall be equipped such that it sounds an alarm, or initiates notification via remote alarm to the nearest field office, when the pilot light is out. The permittee shall maintain records of the times and duration of all periods when the pilot flame was not present and vapors were vented to the device. The permittee shall maintain records of any inspections made pursuant to 4.2.4(b);
- c. For any absence of pilot flame, or other indication of smoking or improper equipment operation, the permittee must ensure the equipment is returned to proper operation as soon as practicable after the event occurs. At a minimum, the permittee must: (1) Check the air vent for



obstruction. If an obstruction is observed, you must clear the obstruction as soon as practicable.  
(2) Check for liquid reaching the flare;

- d. Any bypass event of a flare must be reported in writing to the Director of the DAQ as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the date of the bypass, the estimate of VOC emissions released to the atmosphere as a result of the bypass, the cause or suspected cause of the bypass, and any corrective measures taken or planned; and
- e. Any time the flare is not operating when emissions are vented to it, shall be reported in writing to the Director of the DAQ as soon as practicable, but within ten (10) calendar days of the discovery.

#### 4.2.5. **Flare Visible Emissions Compliance**

Visible emissions Monitoring, Compliance Demonstration, Recording and Reporting shall be in accordance with the following requirements:

- a. Compliance with the visible emission requirements for the process flares given under 4.2.7(g)(2) and (3) shall be in accordance with the following: Visible emission checks shall be conducted during each plant startup. These checks shall be performed for a sufficient time interval, but no less than a 6-minute interval, to determine if any visible emissions are present. Each observation must be recorded as either visible emissions observed or no visible emissions observed. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions;
  - (2) The visible emission check shall determine the presence or absence of visible emissions. The observations shall be conducted according to Section 11 of EPA Method 22. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 which may include online web-based training as supplied by a Method 9 training company;
  - (3) If visible emissions are determined to be present at a source(s) during the testing required under 4.2.(a)(2), the permittee shall, as soon as practicable, attempt to diagnose and correct any issue that is causing the presence of visible emissions;
  - (4) If the cause of the visible emissions are not correctable within a reasonable time (not to exceed three (3) hours), the permittee shall perform a Method 9 reading as soon as practicable to confirm that visible emissions are within the applicable limits of this permit;
  - (5) If, at any time, plant personnel observe any sustained visible emissions (lasting longer than 6 minutes) from the process flare, the permittee shall conduct a Method 22 test on that emission point pursuant to the requirements of this section.
- c. For the purpose of demonstrating compliance with the visible emissions and opacity requirements, the permittee shall maintain records of the visible emission opacity tests and checks. The permittee shall maintain records of all monitoring data required by 4.2.5 documenting the date and time of each visible emission check, the emission point or equipment/

source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9. For an emission unit out of service during the evaluation, the record of observation may note "out of service" (O/S) or equivalent; and

- d. Any deviation of the allowable visible emission requirement for the process flare is discovered during observation using 40 CFR Part 60, Appendix A, Method 9 must be reported in writing to the Director of the DAQ as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

#### 4.2.6. **Closed Vent Requirements**

To demonstrate compliance with the closed vent system requirements of 4.1.13, the permittee shall:

- a. **Initial requirements.** The permittee shall follow the procedures in 40 CFR 60, Subpart VVa. The initial inspection shall include the bypass inspection, conducted according to paragraph (b) of this section.
- b. **Bypass inspection.** Visually inspect the bypass valve during the initial inspection for the presence of the car seal or lock-and-key type configuration to verify that the valve is maintained in the non-diverting position to ensure that the vent stream is not diverted through the bypass device. If an alternative method is used, conduct the inspection of the bypass as described in the operating procedures.
- c. **Unsafe to inspect requirements.** You may designate any parts of the closed vent system as unsafe to inspect if the requirements in paragraphs (1) and (2) of this section are met. Unsafe to inspect parts are exempt from the inspection requirements of paragraphs (a) and (b) of this section.
  - (1) You determine that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with the requirements.
  - (2) You have a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.
- d. To demonstrate compliance with the closed vent monitoring requirements given under paragraphs (a) through (c) above, the following records shall be maintained:
  - (1) The initial compliance requirements;
  - (2) If you are subject to the bypass requirements, the following records shall also be maintained:
    - (i) Each inspection or each time the key is checked out or a record each time the alarm is sounded;

- (ii) Each occurrence that the control device was bypassed. If the device was bypassed, the records shall include the date, time, and duration of the event and shall provide the reason that the event occurred. The record shall also include the estimate of emissions that were released to the environment as a result of the bypass.
- (3) Any part of the system that has been designated as "unsafe to inspect" in accordance with 4.2.3(c).

**4.3. Performance Testing Requirements**

**4.3.1. General Performance Testing**

At such reasonable time(s) as the Secretary may designate, in accordance with the provisions of 3.3 of this permit, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established in this permit and/or applicable regulations.

**4.3.2. Specific Emissions Point Performance Testing**

Within 60 days after achieving the maximum permitted production rate of the emission unit in question, but not later than 180 days after initial startup of the unit, the permittee shall conduct, or have conducted, in accordance with a protocol submitted pursuant to 3.3.1(c), performance tests on the emission units (as emitted from the listed emission points) to show compliance with the specified pollutants as given in the following table:

**Table 4.3.2.: Performance Testing Requirements**

Emission Unit(s)	Emission Point(s)	Pollutants	Limit
8S-X 9S-X 10S-X	1E-X <sup>(1)</sup>	NO <sub>x</sub> (Startup) NO <sub>x</sub> (Steady-State) CO (Startup)	PPH (Table 4.1.6(c)) <sup>(2)</sup>

- (1) This performance test is required for each of the plants that come on line. Thereafter, each plant is subject to the testing schedule given under 4.3.3. below.
- (2) Steady-state testing shall occur at the maximum production rate or the results of the test shall be scaled up to represent the plant operating at the maximum production rate in order to show compliance with the PPH limits.

**4.3.3. Performance Testing Schedule**

With respect to the performance testing required above under Section 4.3.2, the permittee shall, after the initial performance test, periodically conduct additional performance testing on the specified sources according to the following schedule:

**Table 4.3.3.: Performance Testing Schedule**

Test	Test Results	Retesting Frequency
Initial Baseline	<50% of the emission limit	Once/5 years
Initial Baseline	between 50% and 80 % of the emission limit	Once/3 years
Initial Baseline	>80% of the emission limit	Annual
Annual	after three successive tests indicate a mass emission rate <50% of the emission limit	Once/5 years

Test	Test Results	Retesting Frequency
Annual	after two successive tests indicate a mass emission rate <80 % of the emission limit	Once/3 years
Annual	any tests indicates a mass emission rate >80% of the emission limit	Annual
Once/2 years	After two successive tests indicate mass emission rates <50% of the emission limit	Once/5 years
Once/2 years	any tests indicates a mass emission rate <80 % of the emission limit	Once/3 years
Once/2 years	any tests indicates a mass emission rate >80% of the emission limit	Annual
Once/3 years	any tests indicates a mass emission rate <50% of the emission limit	Once/5 years
Once/3 years	any test indicates mass emission rates between 50% and 80 % of the emission limit	Once/3 years
Once/3 years	any test indicates a mass emission rate >80% of the emission limit	Annual

4.3.3. **Process Gas Testing**

In order to show compliance with 4.1.10(e), during each initial plant startup, the permittee shall conduct, or have conducted, in accordance with a protocol submitted pursuant to 3.3.1(c), a test on the process gas immediately prior to the Process Flare to confirm the assumptions used to determine the emissions in Attachment N of permit application R13-3622 (including a sulfur concentration at or below than 100 ppb (v/v). Any additional testing, after the initial performance test, will be at the discretion of the Secretary pursuant to 4.3.1. above.

4.4. **Additional Recordkeeping Requirements**

4.4.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:

- a. The date, place as defined in this permit and time of sampling or measurements;
- b. The date(s) analyses were performed;
- c. The company or entity that performed the analyses;
- d. The analytical techniques or methods used;
- e. The results of the analyses; and
- f. The operating conditions existing at the time of sampling or measurement.

4.4.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

4.4.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

#### 4.5. **Additional Reporting Requirements**

4.5.1. The permittee shall submit the following information to the DAQ according to the specified schedules:

a. **Biannual Monitoring Information Submission**

The permittee shall submit reports of all required monitoring on or before September 15 for the reporting period January 1 to June 30 and March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports; and

b. **Certification of Compliance**

The permittee shall submit to the Director on or before March 15, a certification of compliance with all requirements of this permit for the previous calendar year ending on December 31. If, during the previous annual period, the permittee had been out of compliance with any part of this permit, it shall be noted along with the following information: 1) the source/equipment/process that was non-compliant and the specific requirement of this permit that was not met, 2) the date the permitted discovered that the source/ equipment/process was out of compliance, 3) the date the Director was notified, 4) the corrective measures to get the source/equipment/process back into compliance, and 5) the date the source began to operate in compliance. The submission of any non-compliance report shall give no enforcement action immunity to episodes of non-compliance contained therein.

### CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached \_\_\_\_\_, representing the period beginning \_\_\_\_\_ and ending \_\_\_\_\_, and any supporting documents appended hereto, is true, accurate, and complete.

Signature<sup>1</sup> \_\_\_\_\_  
(please use blue ink) Responsible Official or Authorized Representative Date

Name and Title \_\_\_\_\_  
(please print or type) Name Title

Telephone No. \_\_\_\_\_ Fax No. \_\_\_\_\_

<sup>1</sup> This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

- a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
  - (I) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or
  - (ii) the delegation of authority to such representative is approved in advance by the Director;
- b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
- c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of USEPA); or
- d. The designated representative delegated with such authority and approved in advance by the Director.



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**west virginia department of environmental protection**

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Division of Air Quality  
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Harold D. Ward, Cabinet Secretary  
[dep.wv.gov](http://dep.wv.gov)

## **ENGINEERING EVALUATION / FACT SHEET**

### **BACKGROUND INFORMATION**

Application No.: R13-3622  
Plant ID No.: 059-00102  
Applicant: TransGas Development Systems, LLC  
Facility Name: Ammonia Production Facility  
Location: Wharncliffe, Mingo County  
SIC/NAICS Code: 2873/325311  
Application Type: Construction  
Received Date(s): June 30, 2023 (Original)  
October 3, 2023 (Final)  
Engineer Assigned: Joe Kessler  
Fee Amount: \$2,000  
Dates Received: July 5, 2023 (\$1,000)  
August 7, 2023 (\$1,000)  
Complete Date: November 1, 2023  
Due Date: January 30, 2024  
Applicant's Ad Date: October 11, 2023  
Newspaper: *The Williamson Daily News*  
UTM's: 418.156 km Easting • 4,163.591 km Northing • Zone 17  
Latitude/Longitude: 37.61577/-81.92736  
Description: Construction of six (6) identical 6,000 metric tons/day (MTPD) ammonia manufacturing plants on the site of the previously permitted (but not constructed) coal-to-gasoline facility (Permit Number R13-2791A).

On February 25, 2010, TransGas Development Systems, LLC (TransGas) was issued permit R13-2791 (later modified under R13-2791A issued on August 5, 2011) for the construction of a coal-to-gasoline facility located near Wharncliffe, Mingo County, WV. Minor construction on the facility was initiated in June 2011 before the work was discontinued and no further construction activities took place on the site. On June 30, 2023, TransGas submitted a permit application for an ammonia manufacturing facility on the same site as the previously permitted coal-to-gasoline facility. While the existing permit has never been revoked, it has been determined that this application, due to the completely different facility-type and length of time passed, will be reviewed and presented as a new construction and not a modification of the existing permit. However, if a final determination is made to issue the permit, it will revoke and supercede R13-2791A.

## DESCRIPTION OF PROCESS

TransGas has applied for a permit to construct up to six (6) identical, self-contained, 6,000 metric tons/day (MTPD), 2,125,000 metric tons/year (MTPY), ammonia manufacturing plants on an area of reclaimed surface mining activity near Wharncliffe, Mingo County, WV. The basic process will be to take a feedstock of natural gas and, after removing impurities, “crack” the gas into its hydrogen and carbon components (syngas) using Topsoe’s (the primary vendor - formerly “Haldor Topsoe”) proprietary autothermal reforming (ATR) technology. After cracking, the hydrogen will be, in the presence of injected nitrogen, synthesized into ammonia (NH<sub>3</sub>). The ammonia vapor is then chilled to produce liquid ammonia for storage and transport. The produced Ammonia is used by customers primarily as fertilizer, either directly as ammonia, or indirectly after synthesis, as urea or other ammonia-based materials. Ammonia is also used as a material in the manufacture of polymeric resins, explosives, nitric acid, and other products.

TransGas has announced plans to capture and sequester (store underground) carbon dioxide (CO<sub>2</sub>) as part of the production process. It is important to note that, as the proposed facility is defined as a minor source, greenhouse gases (GHGs) - which includes CO<sub>2</sub> - are not a regulated pollutant under the minor source permitting rule (45CSR13). Therefore, no review of the viability of the carbon capture and sequestration (CCS) claim was conducted, or will any requirement be written into the draft permit mandating the use of CCS. For informational purposes, ammonia generated from natural gas without CCS is referred to as “grey” ammonia while ammonia generated with CCS is referred to as “blue” ammonia.

The following detailed process description is for one 6,000 MTPD plant but the process is exactly the same for each of the proposed six (6) identical units (emission unit numbers given in parentheses are listed with an “X,” where each plant will use a 1 through 6 to identify the specific unit). As noted, natural gas (up to 194.5 mmscf/day/plant) is provided to the facility by a third party and first sent through a **Feed Purification** (1S-X) step (desulfurization and removal of other impurities). This step involves the use of a 14.3 mmBtu/hr hydrogen-fired **Pre-Heater** (9S-X) and a 1,332.7 mmBtu/hr hydrogen-fired **Super Heater** (10S-X). Each of these units will burn excess hydrogen created in the plant when the plant is in a steady-state operation and combust natural gas and process gas during plant startup. Emissions from these units shall be combined in a single stack and Selective Catalytic Reduction (SCR) will be used to control generated NO<sub>x</sub> emissions (1C-X).

In the desulfurization section, any sulfur and other impurities are removed from the natural gas via a hydrogenation step where sulfur components are converted to saturated hydrocarbons and then hydrogen sulfide (H<sub>2</sub>S) over a hydrogenation catalyst bed. The H<sub>2</sub>S is absorbed in a sulfur absorber containing a sulfur absorption catalyst. This step also preheats the feedstock and provides steam to the reforming section and to the Steam Electric Generators that provide steady-state electricity to the plant.

After the purification of the feedstock, the desulfurized gas goes to the **Reformer Section** (2S-X), where the syngas is generated. The Reformer Section uses proprietary Topsoe ATR technology under the trademark of “SynCOR™.” In the SynCOR Reformer, the purified natural gas is mixed with steam at the required steam/carbon ratio before being placed in the presence of a pre-reformer catalyst. In the pre-reformer, all higher hydrocarbons are converted into a mixture of hydrogen, carbon monoxide (CO), CO<sub>2</sub>, and methane (CH<sub>4</sub>) by the steam reforming and water gas



shift reactions. The pre-reformed natural gas and steam, together with a mixture of steam and high purity oxygen, enters the Cool Tip Swirler (CTS) burner at the top of the **Autothermal (ATR) Section** (3S-1). Exothermic reactions occur within the combustion zone and catalytic zone whereby the overall hydrocarbon reforming occurs. This reforming (or “cracking”) process occurs in the presence of catalysts and converts the methane into hydrogen, CO and CO<sub>2</sub>.

After exiting the SynCOR Reformer, the syngas (made up primarily of CO, CO<sub>2</sub>, and H<sub>2</sub>) is sent to the **CO Conversion Section** (4S-X), where the syngas undergoes CO shift reactions to convert the CO into additional CO<sub>2</sub> and to increase the amount of hydrogen in the syngas. The shift reaction takes place in two adiabatic shift converters, both containing a “shift catalyst.” The CO<sub>2</sub> is then removed in the **CO<sub>2</sub> Removal Section** (6S-X). This is done by CO<sub>2</sub> absorption in a hot potassium carbonate solution (HPC). After capturing the CO<sub>2</sub>, the now K<sub>2</sub>CO<sub>3</sub> solution is sent to a distillation column where the pure CO<sub>2</sub> is boiled off. At this point, if CCS is employed, the CO<sub>2</sub> may be pressurized and handled accordingly. If a grey ammonia process, the CO<sub>2</sub> is emitted into the ambient air.

The remaining syngas, mostly containing just hydrogen at this point, is sent through a hydrogen purification step where inert gases are removed and some of the hydrogen is routed to the Pre-Heater and Super Heater and used as a fuel. The purified hydrogen gas stream is then sent through the **Nitrogen Wash Unit** (5S-X) before being processed in the **Ammonia Synthesis Loop** (7S-X). The syngas is introduced to a nitrogen wash in order to correct the H<sub>2</sub>/N<sub>2</sub> ratio and to remove additional inert gases. A nitrogen wash replaces the more conventional steps of methanation, ammonia wash, and hydrogen recovery used in most ammonia facilities. The nitrogen wash removes both CO remaining after the shift reactions and trace amounts of methane remaining from the reforming section.

In the Ammonia Synthesis Loop, the now cleaned syngas with the correct ratio of nitrogen to hydrogen is synthesized in the presence of catalysts to produce ammonia. The synthesis gas is compressed and mixed with circulating synthesis gas from the ammonia loop recycle compressor, before being preheated and fed to the ammonia converter. The governing chemical reaction is:  $N_2 + 3 H_2 \rightleftharpoons 2 NH_3$ . The ammonia converter is a three-catalyst bed converter with radial flow through the catalyst beds. Between each of the catalyst beds, an interbed heat exchanger is installed and the interbed heat exchangers serve the purpose of removing the reaction heat prior to entering the next catalyst bed. The ammonia is created in vapor form and is then sent through a refrigeration step where the ammonia is purified and chilled into a liquid. The liquid ammonia is stored in a refrigerated tank with a capacity to hold approximately 22,500 lbs of ammonia product. From the storage tank, the liquid ammonia will be loaded onto trucks and transported off-site.

During startup of the above process, a 5.15 mmBtu/hr ammonia-fired **Startup Steam Generator** (8S-X) is used to generate heat and steam for the process prior to the plant’s steady-state operation. Also during startups, syngas from the process will be routed to and controlled by a (maximum) 216,273 scf/min non-assisted **Process Flare** (2C-X). The Pre-Heater and Super-Heater will begin a startup cycle burning natural gas (for approximately 2 hours) before a transition to process gas to complete the startup process. Again, once the plant reaches steady-state, the heaters will then be fueled only by hydrogen. One startup cycle is estimated to last a maximum of about 15

hours, (the steam generator will only be needed for about 14 hours). NO<sub>x</sub> emissions during startup as emitted from the steam generator and the heaters will be controlled by the SCR.

The facility will also include a Cummins Model C1000N6B 1,000 kW<sub>e</sub> (1,082 kW<sub>m</sub>), 1,451 horsepower (hp) natural gas-fired **Startup & Emergency Generator** (11S-X) to provide electrical power during startup and during times of power interruption. The plant will also include an Air Separation Unit (no regulated pollutants emitted) to provide nitrogen to the Ammonia Synthesis Loop. No substantive trucking emissions will occur at the site as the liquid ammonia will be piped off the hill to a railhead where it will be transported.

## **SITE INSPECTION**

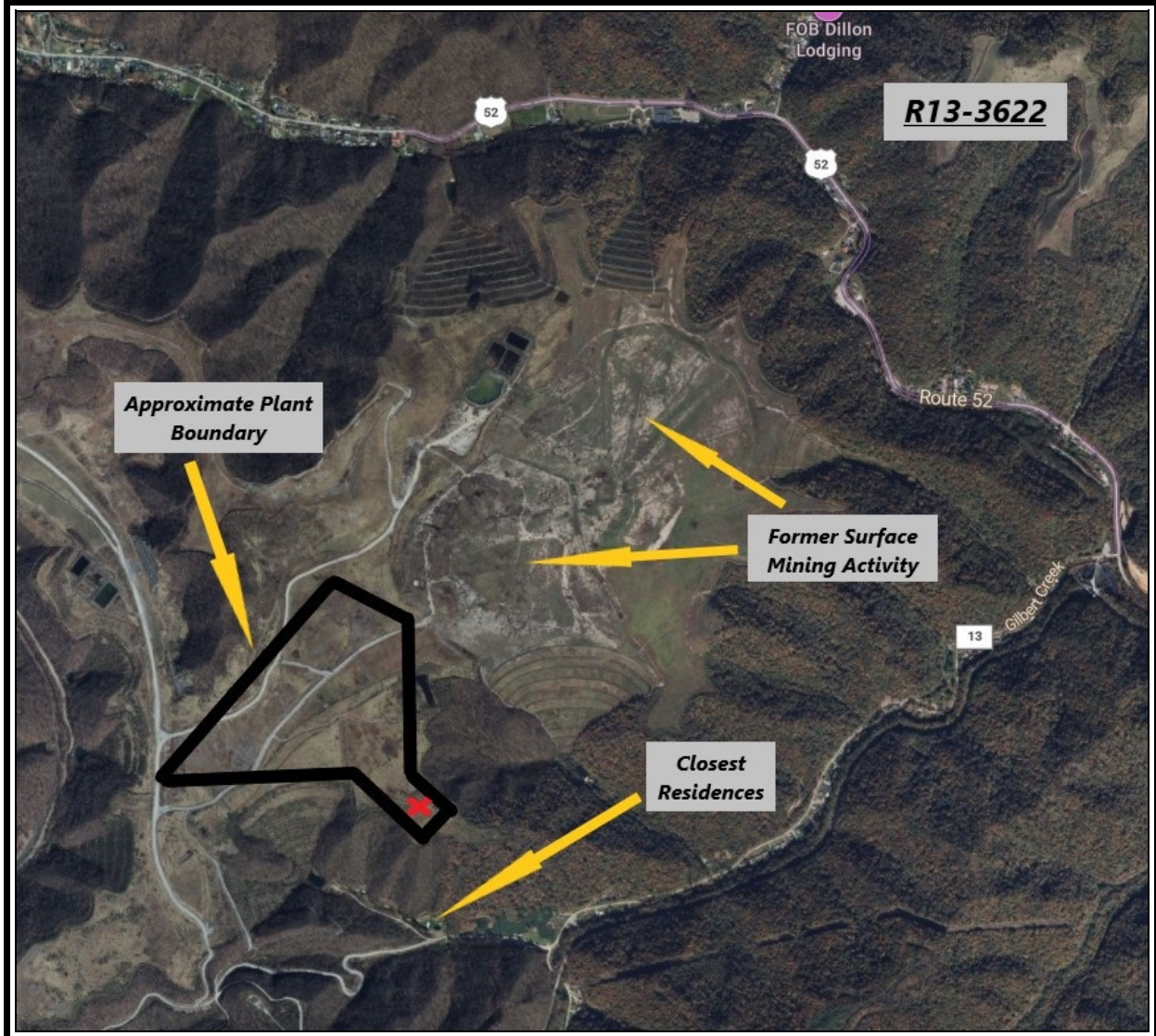
On April 8, 2009 and June 30, 2011, the writer conducted an inspection of the proposed location of TransGas's Ammonia Production Facility. These inspections were conducted as part of the review and compliance determination associated with R13-2791 and R13-2791A. As of the June 30, 2011 inspection, the site remained mostly untouched after reclamation of the mining activity and, based on satellite photos taken since that time, remains in that condition. For those reasons, an additional site inspection was not performed during the review of R13-3622. However, using the observations from those inspections and a review of the most recent satellite images, the following observations may be made:

- The proposed location of the TransGas facility is within the boundary of a former Cobra Run Natural Resources (CRNR) surface mine (Premium) in a remote location of Mingo County. No adjacent surface mining activity appears to be ongoing at the broader site (active mining was on-going during the review of R13-2791). The site is relatively isolated from any communities as it lies on the surface mined (and reclaimed) hills above Gilbert Creek that lies to the southeast;
- The topography of the area surrounding the propose location is hilly, with deep cuts formed by various creeks and streams in the area. This region of southern West Virginia has seen heavy mining activity, both on the surface and underground and many areas of surface disturbance are located near the proposed site; and
- The closest occupied residences to the proposed location appear to be located approximately 0.70 miles southeast of the site along County Route 10 (Right Fork Ben's Creek Road). Notably, the community of Gilbert is located approximately 3.35 miles to the east and the Twisted Gun Golf Course lies approximately 1.75 miles to the southwest; and

*Directions:* [Latitude: 37.61577, Longitude: -81.92736] From the WV State Route 44 and U.S Highway 52 intersection, travel on 52S for approximately 7.3 miles until turning right on Gilbert Creek Road (County Road 13) and proceeding for approximately 1.9 miles. When reaching Right Fork Ben's Creek Road (County Route 10), turn right and go approximately 1.1 miles until the entrance of the old CRNR Premium Surface Mine is reached on the right. The proposed facility will be located approximately a mile up the hill inside CRNR property.

The following is labeled satellite imagery (taken from BingMaps - date unknown but 2018+) of the proposed site of the Ammonia Production Facility (the red “X” on the map represents the location where the picture of the site was taken as shown in Figure 2):

**Figure 1: Labeled Satellite Imagery**



The following is a picture taken from a location on the southeast of the site at the location of the red “X” on the map above:

**Figure 2: View of Site from Southeast Corner**



## **AIR EMISSIONS AND CALCULATION METHODOLOGIES**

TransGas included in Attachment N of the permit application air emissions calculations for the proposed Ammonia Production Facility. The following will summarize the calculation methodologies used by TransGas to calculate the potential-to-emit (PTE) of the proposed facility.

### ***Startup/Shutdown Emissions***

The proposed Ammonia Product Plant will have distinct and separate emission profiles during plant startup, plant shutdown, and during steady-state operation of the plant. Most significantly, during startup/shutdown, the facility will burn off the syngas in the process flare until the plant components reach a point of proper temperatures and pressures to process the syngas into ammonia (startup) or until all the plant components are safely brought offline (shutdown). The following will detail the emissions that only occur during startup/shutdown of the plant. It is important to note that TransGas has only included in the facility-wide potential-to-emit (PTE) the emissions associated with six (6) startups and six (6) shutdowns per year. This estimate is based on a maximum of one (1) startup and shutdown per plant per year. However, if only one of the plants is in operation, that plant could undergo all six startup/shutdown cycles (and distributed as necessary as more plants are added) and the emissions would be accounted for.

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## Startup Steam Generators

As noted in the process description, a 5.15 mmBtu/hr ammonia-fired Startup Steam Generator (1E-X) is used in each plant to generate heat and steam for the process prior to the plant's steady-state operation. The unit is fired only on ammonia ( $\text{NH}_3$ ) and, therefore, only produces emissions of ammonia slip (ammonia not combusted and emitted),  $\text{N}_2\text{O}$ , and  $\text{NO}_x$ . The emissions produced are sent to the SCR system to remove the  $\text{NO}_x$  prior to release into the air. The uncontrolled emissions of  $\text{NO}_x$  are based on the amount of ammonia combusted per hour during the startup cycle (the unit is estimated to operate for a maximum of 14 hours in the startup cycle). The highest amount consumed in any hour is 13,448 pounds, and the total for the whole cycle is 155,327 pounds (with a total heat input based on 382.8 Btu/lb-ammonia of 59.46 mmBtu/start-up cycle). Using this data and a calculated uncontrolled  $\text{NO}_x$  emission rate of 2.82 lb- $\text{NO}_x$ /mmBtu, the uncontrolled emissions were calculated to be a maximum of 14.50 lbs/hr and full startup event total of 167.45 lbs of  $\text{NO}_x$ . The controlled emissions from the units are then reduced by 99% in the SCR, for a maximum hourly rate of 0.15 lbs/hr and 1.67 lbs/startup cycle. The ammonia feed rate was provided by the vendor and based on the simulated needs of the startup cycle. This unit then goes offline and does not operate during steady-state operations of the plant or during a plant shutdown.

## Pre-Heater/Super-Heater - Startup

The 14.3 mmBtu/hr Pre-Heater (1E-X) and 1,332.7 mmBtu/hr Super Heater (1E-X) begin the startup cycle combusting natural gas (this phase lasts approximately 2 hours). After this period, the plant components begin to produce process gas that is then used to first supplement and then replace the natural gas in the heaters. The heaters then combust process gas until the transition late in the startup cycle of the fuel to hydrogen. As noted above, once the plant achieves steady-state operation, the heaters will combust only excess hydrogen produced in the process. The emissions of  $\text{CO}$ ,  $\text{NO}_x$  and  $\text{SO}_2$  during startup are based on process simulations/modeling provided by the vendor. Emissions of particulate matter, VOCs, and HAPs during this startup cycle are conservatively based on the amount of gas combusted and emission factors taken from AP-42, Section 1.4 - "Natural Gas Combustion" (AP-42 is a database of emission factors maintained by EPA) and are based on the heat content of the specific process gas streams. As during steady-state, emissions from the heaters are sent to the SCRs for control of  $\text{NO}_x$  (a 99% control rate). The heaters do not have a separate emissions profile during the shutdown phase.

## Flaring- Startup

As noted, during startup and during shutdowns, syngas from the process will be routed to and controlled by a (maximum) 216,273 scf/min non-assisted Process Flare (2E-X). During startup, several areas of the plant will evacuate process gas to the flare until steady-state conditions are achieved. At that time, the flaring will no longer need to occur and the process gas shall be routed through the areas of the plant. The flow rates of the gas sent to the flare during startup are given in Attachment N of the permit application.

Some of the process gas produced in the startup phase is also combusted in the Pre-Heater/Super-Heater (as discussed above). The components of the gas and the amounts are based on process simulations/modeling provided by the vendor. The complete startup cycle (the

amount of time the flare is in operation is approximately 40 hours. The emissions of CO and NO<sub>x</sub> from the flaring are based on vendor provided post-flaring concentrations (given in ppm<sub>v</sub>). The emissions of SO<sub>2</sub> are also calculated as a mass balance considering any sulfur remaining in the process gas. The emissions of particulate matter, VOCs, and HAPs are very conservatively based on emission factors are also taken from AP-42, Section 1.4 - "Natural Gas Combustion" and are based on the heat content of the specific process gas streams. It is important to note that the startup phase produces relatively high short-term pollutant emissions but, as the startup phase is short and the amount of startup is calculated at only one (1) per year per plant, the annual emissions from flaring are low.

### Flaring- Shutdown

Flaring also occurs during a shutdown of the plant as plant components are brought down off pressure and the remaining process gases are evacuated to the Process Flare. The emissions from the shutdown phase are based on emission factors provided by the vendor. The shutdown cycle is estimated to last approximately 1 hour. As with the startup emissions profile, it is important to note that the shutdown phase produces relatively high short-term pollutant emissions but, as the shutdown phase is short and the amount of shutdowns is calculated at only one (1) per year per plant, the annual emissions from flaring during shutdown are low.

### ***Steady-State Emissions***

When the plant is fully at temperature and pressure and is producing ammonia, it is operating in a steady-state mode. The only emission sources during this mode are the combustion exhaust emissions from the Pre-Heater (1E-X) and Super Heater (1E-X) and the leaks from the piping components at the plant.

### Pre-Heater/Super-Heater - Steady-State

As noted elsewhere, during steady state the 14.3 mmBtu/hr Pre-Heater (9S-X) and the 1,332.7 mmBtu/hr Super Heater (10S-X) are fired by excess hydrogen produced in the Reformer. As the units only combust purified hydrogen, the only pollutant produced in the combustion process is "thermal" NO<sub>x</sub> - this is NO<sub>x</sub> created by the oxidation of the nitrogen in ambient air within the combustion process. These NO<sub>x</sub> emissions (uncontrolled) were calculated based on the size of the heaters and the expected amount of hydrogen feed to the units. The controlled emissions were then based on utilization of the SCR for NO<sub>x</sub> control, at an efficiency of 99%. The annual emissions are based conservatively on the units operating 8,760 hours/yr.

In addition to the creation of thermal NO<sub>x</sub> when combusting hydrogen, TransGas also calculated the nominal amount of combustion exhaust created from the use of natural gas as a flame detection method. As hydrogen burns clear, trace amounts of natural gas are introduced into the burner so the flame is visible for monitoring purposes. The amount introduced was estimated to be a maximum aggregate of only 16.7 scf/hr for both units. The emissions produced from this trace natural gas were based on AP-42, Section 1.4 - "Natural Gas Combustion" and are based on the nominal low-heating value of the natural gas of 979.98 Btu/scf. Annual emissions are based on the use of the flame detection gas for 8,760 hours/yr.

## Component Leaks

TransGas based their VOC/HAP fugitive equipment leak calculations on emission factors taken from the document EPA-453/R-95-017 - “Protocol for Equipment Leak Emission Estimates” Table 2-1. Aggregate component counts were based on engineering estimates for the specific sections of the proposed plant. No control efficiencies were used. No VOCs were estimated as emitted from component leaks as only methane emissions occur, which is not defined as a VOC. Emissions of CO are the only regulated pollutant emitted from component leaks and are based on the following mole percentage for process lines 2015, 2012, 2160, 3745, and 7170: CO - 7.2%, and for process line 3745 - 0.01%. Based on this methodology, the fugitive emissions of CO from each individual ammonia plant will be 1.47 tons/year with an aggregate facility-wide total of 8.79 tons/year.

## ***Emergency Engine***

Potential emissions from the proposed 2-Stroke Lean Burn (2SLB) Cummins Model C1000N6B 1,000 kW<sub>e</sub> (1,082 kW<sub>m</sub>), 1,451 horsepower (hp) natural gas-fired Startup & Emergency Generators (4E-X) are each based, where applicable, on either information provided by the vendor or on AP-42, Section 3.2 - “Natural Gas-fired Reciprocating Engines.” A heat input of 9.85 mmBtu/hr was used in the calculations (as based on a heat ratio of 147.3 hp/mmBtu). The emissions from the units are given in the following table:

**Table 1: Per-Emergency Generator PTE**

Pollutant	Emission Factor		Source	Hourly (lb/hr)	Annual (ton/yr)
	Value	Units			
CO	1.60	g/hp-hr	Vendor	5.11	0.26
NO <sub>x</sub>	1.00	g/hp-hr	Vendor	3.20	0.16
PM <sub>2.5</sub> /PM <sub>10</sub> /PM <sup>(2)</sup>	4.83e-02	lb/mmBtu	AP-42, Table 3.4-1	0.48	0.03
SO <sub>2</sub>	5.88e-04 <sup>(1)</sup>	lb/mmBtu	AP-42, Table 3.2-1	5.79e-03	0.01
VOCs	0.120	lb/mmBtu	AP-42, Table 3.2-1	1.18	0.06
Total HAPs	7.95e-02	lb/mmBtu	AP-42, Table 3.2-1	0.78	0.04

(1) Based on a fuel sulfur content of 2,000 gr/10<sup>6</sup> scf.

**Emissions Summary**

Based on the above estimation methodology as submitted in Attachment N of the permit application, the facility-wide annual PTE (based on all six identical plants in operation) of the proposed Ammonia Production Facility is given in the following table.

**Table 2: Facility-Wide Annual PTE**

Pollutant	Startup/ Shutdown <sup>(1)</sup>	Steady-State	Electric Generators	Fugitives	Facility-Wide
CO	2.92	0.12	1.56	8.79	13.39
NO <sub>x</sub>	11.42	40.14	0.96	0.00	52.52
PM <sub>2.5</sub> <sup>(2)</sup>	0.10	0.12	0.18	0.00	0.40
PM <sub>10</sub> <sup>(2)</sup>	0.10	0.12	0.18	0.00	0.40
PM <sup>(2)</sup>	0.10	0.12	0.18	0.00	0.40
SO <sub>2</sub>	<0.01	0.12	0.06	0.00	0.18
VOC	0.07	0.12	0.36	0.00	0.55
Total HAPs	0.03	0.00	0.24	0.00	0.27

(1) Includes Startup Steam Generator, Heaters, and Flaring during startup and shutdown.

(2) Includes Condensables.

**REGULATORY APPLICABILITY**

The proposed Ammonia Production Facility is subject to substantive requirements in the following state and federal air quality rules and regulations:

**Table 3: Applicable State and Federal Air Quality Rules and Regulations**

State Air Quality Rules	
<i>Emissions Standards</i>	
45CSR2	To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers
45CSR6	To Prevent and Control Particulate Air Pollution from Combustion of Refuse
45CSR10	To Prevent and Control Air Pollution from the Emission of Sulfur Oxides
<i>Permitting Programs and Administrative Rules</i>	
45CSR13	Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, and Procedures for Evaluation
45CSR22	Air Quality Management Fee Program



<b>Federal Air Quality Regulations</b>	
<i>New Source Performance Standards (NSPS) - 40 CFR 60</i>	
Subpart JJJJ	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
<i>Maximum Achievable Control Technology (MACT) - 40 CFR 63<sup>(1)</sup></i>	
Subpart ZZZZ	National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

- (1) As the facility-wide PTE does not exceed 10 TPY of any individual HAP or 25 TPY of aggregate HAPs, the proposed TransGas facility is defined as a non-major “area source” for the purposes of 40 CFR 63 applicability. Therefore, only certain MACTs that apply to area sources have potential applicability to the proposed source.

Each applicable rule (and any rule that warrants a discussion of non-applicability) and TransGas’s proposed compliance therewith will be summarized below.

### **WV State Air Quality Rules**

#### ***45CSR2: To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers - (Not Applicable)***

45CSR2 “establishes emission limitations for smoke and particulate matter which are discharged from fuel burning units.” A fuel burning unit is defined under 45CSR2 as any “furnace, boiler apparatus, device, mechanism, stack or structure used in the process of burning fuel or other combustible material for the primary purpose of producing heat or power by indirect heat transfer.” Additionally, the definition of “indirect heat exchanger” specifically excludes process heaters, which are defined as “a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.” Based on the definition and exclusion of process heaters, the 14.3 mmBtu/hr Pre-Heater and the 1,332.7 mmBtu/hr Super Heater are not subject to 45CSR2. The 5.15 mmBtu/hr ammonia-fired Startup Steam Generator is below the 45CSR2 heat input exclusion given under §45-2-11.1 and, as it does not produce any particulate matter emissions, is not subject to the opacity limits under §45-2-3.

#### ***45CSR6: To Prevent and Control Particulate Air Pollution from Combustion of Refuse***

TransGas has proposed the use of identical Process Flares (2C-X) for control of various waste gas streams produced during plant startup/shutdown (see description above). Each identical unit meets the definition of an “incinerator” under 45CSR6 and is, therefore, subject to the requirements therein. The substantive requirements applicable to the Process Flares are discussed below.

#### **45CSR6 Emission Standards for Incinerators - Section 4.1**

Section 4.1 limits PM emissions from incinerators to a value determined by the following formula:

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$$\text{Emissions (lb/hr)} = F \times \text{Incinerator Capacity (tons/hr)}$$

Where, the factor, F, is as indicated in Table I below:

**Table I:** Factor, F, for Determining Maximum Allowable Particulate Emissions

<u>Incinerator Capacity</u>	<u>Factor F</u>
A. Less than 15,000 lbs/hr	5.43
B. 15,000 lbs/hr or greater	2.72

Based on information in the permit application, each Process Flare will have a maximum capacity of 12,976,386 scf/hr. Using methane as a surrogate for the process gases sent to the flares, we can estimate the maximum capacity of the flare. Based on the maximum capacity of the proposed units of 12,976,386 ft<sup>3</sup>/hr, and using the density of methane (0.0422 lb/scf), the capacity of the units in lbs/hr would be approximately 547,603 lbs/hour (273 tons/hr). Using this value in the above equation produces a particulate matter emission limit of 743 lb/hr. Based on information provided by TransGas, the worst case particulate matter emissions from each unit were estimated to be only 7.54 lbs/hr. This emission rate will easily meet the individual 45CSR6 limit.

#### 45CSR6 Opacity Limits for - Section 4.3, 4.4

Pursuant to Section 4.3, and subject to the exemptions under 4.4, the RTOs each will have a 20% limit on opacity during operation. Proper design and operation of the units should prevent any substantive opacity from the units.

#### ***45CSR7: To Prevent and Control Particulate Air Pollution from Manufacturing Process Operations - (Not Applicable)***

45CSR7 has requirements to prevent and control particulate matter air pollution from manufacturing processes and associated operations. Pursuant to §45-7-2.20, a “manufacturing process” means “*any action, operation or treatment, embracing chemical, industrial or manufacturing efforts . . . that may emit smoke, particulate matter or gaseous matter.*” However, for the purposes of 45CSR7, a source of particulate matter emissions that is solely the result of the combustion of gaseous fuels is not considered a “source operation” as defined under §45-7-2.38. This is based on the definition that states a source operation is one that “*result in the separation of air contaminants from the process materials or in the conversion of the process materials into air contaminants.*” Gaseous fuels do not meet the reasonable definition of a “process material.” Additionally, the particulate matter limits given under 45CSR7 only address filterable particulate matter, which are only about 25% of total natural gas particulate matter emissions (and similarly with other gaseous fuels). This determination excludes all gaseous combustion sources from 45CSR7 applicability.

The proposed Ammonia Production Facility will only have particulate matter emissions associated with either gaseous fuel combustion (Pre-Heater/Super-Heater), the Electric Generator, and the Process Flare. 45CSR7 does not apply to the Electric Generator as it is also a combustion device and is subject to the particulate matter standards under 40 CFR 60, Subpart JJJJ, or the Process Flare as that unit is subject to the particulate matter standards under 45CSR6.

**45CSR10: To Prevent and Control Air Pollution from the Emission of Sulfur Oxides - (Not Applicable)**

The purpose of 45CSR10 is to “prevent and control air pollution from the emission of sulfur oxides.” 45CSR10 has requirements (Section 3) limiting SO<sub>2</sub> emissions from “fuel burning units,” limiting in-stack SO<sub>2</sub> concentrations (Section 4) of “manufacturing process source operations,” and limiting H<sub>2</sub>S concentrations (Section 5) in “process gas” streams that are combusted. Sections 3 and 4 are potentially applicable to operations at the proposed TransGas Facility. Concerning Section 3, based on the same applicability definitions as discussed above under 45CSR2 (process heater and heat input exclusions), the 14.3 mmBtu/hr Pre-Heater, the 1,333.27 mmBtu/hr Super Heater, and the 5.15 mmBtu/hr ammonia-fired Startup Steam Generator are not subject to 45CSR10, Section 3.

Concerning Section 4, §45-10-4.1 states that “[n]o person shall cause, suffer, allow or permit the emission into the open air from any source operation an in-stack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations . . .” TransGas has estimated small amounts of SO<sub>2</sub> emissions from the heaters during startup (combustion of process gases) and during steady-state (from combustion of trace amounts of natural gas for flame detection). However, pursuant to §45-10-4.1(e), “a manufacturing process source operation(s) which has the potential to emit less than 500 pounds per year of sulfur oxides.” The facility-wide PTE of SO<sub>2</sub> is 0.18 tons/yr (or 360 pounds/yr) and Section 4.1 does not apply.

Concerning Section 5, §45-10-5.1 states that “[n]o 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 [H<sub>2</sub>S] in a concentration greater than 50 grains per 100 cubic feet of gas . . .” TransGas has conservatively estimated a trace amount of sulfur (100 ppb) left in the process gas as it is either combusted in the heaters or the process flare. However, this trace amount of sulfur is a conservative estimate only, and it is expected that the actual sulfur content after the natural gas desulfurization step will be undetectable. For this reason, it is clear that the process gas will easily be in compliance with the H<sub>2</sub>S limit under §45-10-5.1.

**45CSR13: Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, and Procedures for Evaluation**

The proposed construction of the Ammonia Production Facility has the potential to emit a regulated pollutant in excess of six (6) lbs/hour and ten (10) TPY and, therefore, pursuant to §45-13-2.24, the proposed facility is defined as a “stationary source” under 45CSR13. Pursuant to §45-13-5.1, “[n]o person shall cause, suffer, allow or permit the construction . . . and operation of any stationary source to be commenced without . . . obtaining a permit to construct.” Therefore, TransGas is required to obtain a permit under 45CSR13 for the construction and operation of the proposed facility.

As required under §45-13-8.3 (“Notice Level A”), TransGas placed a Class I legal advertisement in a “newspaper of general circulation in the area where the source is . . . located.” The ad ran on October 11, 2023 in *The Williamson Daily News* and the affidavit of publication for this legal advertisement was submitted on October 26, 2023.

***45CSR14: Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration - (Not Applicable)***

45CSR14 establishes and adopts a preconstruction permit program for the construction and major modification of major stationary sources in areas of attainment with the National Ambient Air Quality Standards (NAAQS). Mingo County is currently classified as in attainment with the NAAQS and, therefore, a proposed new “major stationary source” in Mingo County would be subject to the provisions of 45CSR14. The proposed Ammonia Production Facility is defined as a source listed under §45-14-2.43(a) - “Chemical Process Plant” - and, therefore, pursuant to 2.4(b), would be defined as a “major stationary source” if any regulated pollutant has a PTE in excess of 100 TPY. The proposed facility, however, does not have a potential-to-emit of any regulated pollutant in excess of 100 TPY (see Table 2 above) and is, therefore, not defined as a major stationary source and is not subject to the provisions of 45CSR14.

***45CSR22: Air Quality Management Fee Program***

45CSR22 establishes a program to collect fees for certificates to operate (CTO) and for permits to construct, modify or relocate sources of air pollution. The proposed Ammonia Production Facility is defined as a minor source and is not subject to 45CSR30 (see below). TransGas is, therefore, required to pay the appropriate annual fees and keep their CTO current under the program outline under 45CSR22. The proposed facility will be classified under 45CSR22 and assessed fees based on Fee Class 5A which is defined as “Chemical Production  $\geq$  3 Units.”

***45CSR30: Requirements for Operating Permits***

45CSR30 provides for the establishment of a comprehensive air quality permitting system consistent with the requirements of Title V of the Clean Air Act. The proposed Ammonia Production Facility does not meet the definition of a “major source under §112 of the Clean Air Act” as outlined under §45-30-2.26 and clarified (fugitive policy) under 45CSR30b. The proposed facility-wide PTE (see Table X above) of any regulated pollutant does not exceed 100 TPY. Additionally, the facility-wide PTE does not exceed 10 TPY of any individual HAP or 25 TPY of aggregate HAPs. However, as the proposed facility is subject to a New Source Performance Standard (NSPS) - 40 CFR 60, Subpart JJJJ, and a National Emission Standard for Hazardous Air Pollutants (NESHAP) rule (40 CFR 63, Subpart ZZZZ), the facility would, in most cases, be subject to Title V as a “deferred source.” However, pursuant to §60.4230(c) and §63.6585(d), respectively, as a non-major source, TransGas is not required to obtain a new Title V permit for the facility and is not considered a deferred source. Therefore, the facility is not subject to 45CSR30 and is subject to 45CSR22 as noted above.

**Federal Air Quality Regulations**

***40 CFR 60, Subpart Db: Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units - (Not Applicable)***

40 CFR 60 Subpart Dc is the New Source Performance Standard (NSPS) for industrial-commercial-institutional steam generating units for which construction, modification, or

reconstruction is commenced after June 19, 1984 and that have a maximum design heat input capacity greater than 100 mmBtu/hr. The definition of “steam generating unit,” however, specifically exempts “process heaters.” The definition of process heaters means “a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.” The 1,332.7 mmBtu/hr Super-Heater meets this definition of a process heater and is, therefore, not subject to Subpart Db.

**40 CFR Part 60, Subpart Dc: Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units - (Not Applicable)**

Subpart Dc of 40 CFR 60 is the federal NSPS for small industrial-commercial-institutional “steam generating units” that have an MDHI of less than 100 mmBtu/hr and greater than 10 mmBtu/hr and that were constructed, modified, or reconstructed after June 9, 1989. Subpart Dc contains within it emission standards, compliance methods, monitoring requirements, and reporting and record-keeping procedures for affected facilities applicable to the rule. The definition of “steam generating unit,” however, specifically exempts “process heaters.” The definition of process heaters means “a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.” The 14.30 mmBtu/hr Pre-Heater meets this definition of a process heater and is, therefore, not subject to Subpart Dc.

**40 CFR 60 Subpart JJJJ: Standards of Performance for Stationary Spark Ignition Internal Combustion Engines**

TransGas has proposed the use of identical 2-Stroke Lean Burn (2SLB) Cummins Model C1000N6B 1,000 kW<sub>e</sub> (1,082 kW<sub>m</sub>), 1,451 horsepower (hp) natural gas-fired Startup & Emergency Generators at each of the individual ammonia production plants. Each unit is defined under 40 CFR 60, Subpart JJJJ as a stationary spark-ignition internal combustion engine (SI ICE) and is, pursuant to §60.4230(a)(4)(i), subject to the applicable provisions of the rule. Pursuant to §60.4233(e): “Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE.” Therefore, as an engine that is greater than 100 hp, each engine must comply with the emission standards under Table 1 of Subpart JJJJ as given in the following table:

**Table 4: Subpart JJJJ Compliance**

Pollutant	Standard (g/HP-hr)	Uncontrolled Emissions (g/bhp) <sup>(1)</sup>	Control Percentage <sup>(2)</sup>	Controlled Emissions (g/bhp)	JJJJ Compliant?
NO <sub>x</sub>	1.0	Unknown	Unknown	1.00 <sup>(1)</sup>	Yes
CO	2.0	Unknown	Unknown	1.60 <sup>(1)</sup>	Yes
VOC	0.7	Unknown	Unknown	0.37 <sup>(2)</sup>	Yes

- (1) Emission rates are based on the specification sheet provided by vendor and are noted as post-control.
- (2) Based on (1.18 lbs/hr \* 453.59 g/lb)/1,451 hp.

Based on the emissions presented for the generators in Attachment N of the permit application, the electric generators will be in compliance with the Subpart JJJJ standards.

***40 CFR 63, Subpart ZZZZ: National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines***

40 CFR 63, Subpart ZZZZ is a federal MACT that establishes national emission limitations and operating limitations for HAPs emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. As the proposed Ammonia Production Facility is defined as an area source of HAPs (see Table X), the facility is subject to applicable requirements of Subpart ZZZZ. Pursuant to §63.6590(c):

An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

§63.6590(c)(1) specifies that “[a] *new or reconstructed stationary RICE located at an area source*” is defined as a RICE that shows compliance with the requirements of Subpart ZZZZ by “*meeting the requirements of . . . 40 CFR part 60 subpart IIII, for compression ignition engines.*” Pursuant to §63.6590(a)(2)(iii), a “[a] *stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.*” The 1,500 kW<sub>e</sub> diesel-fired Emergency Engine (5S-1) proposed for the Ammonia Production Facility is defined as a new stationary RICE and, therefore, compliance is shown with Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart JJJJ. Compliance with Subpart JJJJ is discussed above.

**ANALYSIS OF NON-CRITERIA REGULATED POLLUTANTS**

This section provides information on those regulated pollutants that may be emitted from the proposed Ammonia Production Facility and that are not classified as “criteria pollutants.” Criteria pollutants are defined as Carbon Monoxide (CO), Lead (Pb), Oxides of Nitrogen (NO<sub>x</sub>), Ozone (inclusive of VOCs), Particulate Matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and Sulfur Dioxide (SO<sub>2</sub>). These pollutants have National Ambient Air Quality Standards (NAAQS) set for each that are designed to protect the public health and welfare. Other pollutants of concern, although designated as non-criteria *and without national concentration standards*, are regulated through various state and federal programs designed to limit their emissions and public exposure. These programs include federal source-specific HAP regulations promulgated under 40 CFR 61 and 40 CFR 63 (NESHAPS/MACT), and WV Legislative Rule 45CSR27 that regulates certain HAPs defined as Toxic Air Pollutants (TAPs). Any potential applicability to these programs were discussed above under REGULATORY APPLICABILITY.

The majority of non-criteria regulated pollutants fall under the definition of HAPs which are compounds identified under Section 112(b) of the Clean Air Act (CAA) as pollutants or groups of pollutants that EPA knows or suspects *may* cause cancer or other serious human health effects. These adverse health affects, however, may be associated with a wide range of ambient concentrations and exposure times and are influenced by source-specific characteristics such as emission rates and local meteorological conditions. Health impacts are also dependent on multiple factors that affect variability in humans such as genetics, age, health status (e.g., the presence of pre-

existing disease) and lifestyle. As stated previously, *there are no applicable federal or state ambient air quality standards for these specific chemicals*. For a complete discussion of the potential health effects of each compound listed in this section, refer to the IRIS database located at [www.epa.gov/iris](http://www.epa.gov/iris). It is important to note that the USEPA does not divide the various HAPs into further classifications based on toxicity or if the compound is a suspected carcinogen.

TransGas has estimated only trace amounts of HAPs emitted from the proposed facility and all are associated with HAPs created during the combustion of natural gas and process gas (during startup/shutdown). The primary contributor of HAP emissions are the six (6) Startup & Emergency Generators. However, as these units each are limited to operate only 100 hours/year, the annual emission rates of HAPs are low. The following table lists each HAP currently identified by MGM as potentially emitted in an amount greater than 10 lbs/year from the proposed engine. Additionally, information concerning the pollutant, and the associated carcinogenic risk (as based on analysis provided in the Integrated Risk Information System (IRIS)), and any potentially applicable MACT is provided.

**Table 5: Non-Criteria Regulated Pollutant Information**

Pollutant	CAS #	Type	PTE (lbs/yr)	Known/Suspected Carcinogen	Classification	MACT <sup>(1)</sup>
Acetaldehyde	75-07-0	VOC	45.90	Yes	B2 - Probable Human Carcinogen <sup>(2)</sup>	None
Acrolein	107-02-8	VOC	46.00	No	Inadequate Data <sup>(3)</sup>	None
Formaldehyde	50-00-0	VOC	324.00	Yes	B1 - Probable Human Carcinogen <sup>(4)</sup>	None
Methanol	67-56-1	VOC	14.70	No	Not Assessed <sup>(5)</sup>	None

- (1) Does a MACT apply to this specific HAP for any emission unit at the facility? See “Regulatory Applicability” section for discussion.
- (2) [**Acetaldehyde**] From IRIS: “Based on increased incidence of nasal tumors in male and female rats and laryngeal tumors in male and female hamsters after inhalation exposure.”
- (3) [**Acrolein**] From IRIS: “Under the Draft Revised Guidelines for Carcinogen Risk Assessment (U.S. EPA, 1999), the potential carcinogenicity of acrolein cannot be determined because the existing data are inadequate for an assessment of human carcinogenic potential for either the oral or inhalation route of exposure. There are no adequate human studies of the carcinogenic potential of acrolein. Collectively, experimental studies provide inadequate evidence that acrolein causes cancer in laboratory animals.”
- (4) [**Formaldehyde**] From IRIS: “Based on limited evidence in humans, and sufficient evidence in animals. Human data include nine studies that show statistically significant associations between site-specific respiratory neoplasms and exposure to formaldehyde or formaldehyde-containing products. An increased incidence of nasal squamous cell carcinomas was observed in long-term inhalation studies in rats and in mice. The classification is supported by in vitro genotoxicity data and formaldehyde's structural relationships to other carcinogenic aldehydes such as acetaldehyde.”
- (5) [**Methanol**] From IRIS: “Not assessed under the IRIS Program.”

## **AIR QUALITY IMPACT ANALYSIS**

The estimated maximum emissions of the proposed facility are less than applicability thresholds that would define the proposed facility as “major” under 45CSR14 and, therefore, no air quality impacts modeling analysis was performed.

## **MONITORING, COMPLIANCE DEMONSTRATIONS, REPORTING, AND RECORDING OF OPERATIONS**

### ***Monitoring and Compliance Demonstrations***

The primary purpose of emissions monitoring is to determine continuous compliance with emission limits and operating restrictions in the permit over a determined averaging period. Emissions monitoring may include any or all of the following:

- Real-time continuous emissions monitoring to sample and record pollutant emissions (CEMS, COMS);
- Monitoring of plant-wide variables to limit the scope of the plant as applied for;
- Parametric monitoring of variables pre-determined to be proportional (at a known ratio) to emissions (recording of material throughput, fuel usage, production, etc.);
- Real-time tracking of materials and pollutant percentages used in processes where evaporation emissions are expected;
- Monitoring of control device performance indicators (pressure drops, liquid flow rates, oxidizer temperatures, etc.) to guarantee efficacy of pollution control equipment; and
- Visual stack observations to monitor opacity.

It is the permittee's responsibility to record, certify, and report the monitoring results so as to verify compliance with the emission limits. Where emissions are based on the maximum rated short and long-term capacity of units, generally no continuous emissions or parametric monitoring is required as compliance with the emission limits is based on the specific limited capacity of the units.

For the proposed TransGas facility, a mix of the above methods are used to give a reasonable assurance that continuous compliance with emission limits is being maintained. Specifically, some examples include:

- Monitoring of the usage and throughput of a number of different feedstock materials, operational data, and the final product [Table 4.2.3];
- Control device monitoring on the Process Flares [4.2.4]; and
- Visible emissions monitoring on the Process Flares [4.2.5].



In addition to site-specific monitoring and compliance demonstrations, TransGas is required to meet all applicable statutory requirements including those given under 40 CFR 60 Subpart JJJJ. Refer to Section 4.2 of the draft permit for all the unit-specific monitoring, compliance demonstration, reporting, and record-keeping requirements (MRR).

### ***Record-Keeping***

TransGas will be required to follow the standard record-keeping boilerplate language as given under Section 4.4 of the draft permit. This will require TransGas to maintain records of all data monitored in the permit and keep the information for a minimum of five years. All collected data will be available to the Director upon request. TransGas will also be required to follow all the record-keeping requirements as applicable under the variously applicable state and federal rules and regulations.

### ***Reporting***

Beyond the requirement to follow all reporting requirements as applicable under the variously applicable state and federal rules and regulations, TransGas will be required to submit the following substantive reports:

- The results of stack testing within sixty (60) days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives [3.3.1(d)];
- When necessary, any deviation of the allowable visible emission requirement for any emission source discovered during observation using 40 CFR Part 60, Appendix A, Method 9 must be reported in writing to the Director of the DAQ as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned [4.2.5(d)];
- A report detailing all required monitoring on or before September 15 for the reporting period January 1 to June 30 and March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports [4.5.1(a)]; and
- On or before March 15, a certification of compliance with all requirements of the draft permit for the previous calendar year ending on December 31 [4.5.1(b)].

### **PERFORMANCE TESTING OF OPERATIONS**

Performance testing is required to verify, where reasonable and appropriate, the emissions or emission factors used to determine emission units' potential-to-emit and to show initial or periodic

compliance with permitted emission limits. Performance testing must be conducted in accordance with accepted test methods and according to a protocol approved by the Director prior to testing (as outlined under 3.3 of the draft permit). The draft permit outlines specific initial and periodic performance testing for the sources venting to the SCR under Section 4.3.2 and 4.3.3 of the draft permit. Refer to Section 4.3 of the draft permit for all performance testing requirements.

### **RECOMMENDATION TO DIRECTOR**

The information provided in permit application R13-3622 indicates that compliance with all applicable state and federal air quality regulations will be achieved. Therefore, I recommend to the Director that the DAQ go to public notice with a preliminary determination to issue Permit Number R13-3622 to TransGas Development Systems, LLC for the construction of their Ammonia Production Facility located near Wharncliffe, Mingo County, WV.

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Joe Kessler, PE  
Engineer

## **AIR QUALITY PERMIT NOTICE**

### **Notice of Open Comment Period**

On June 30, 2023, TransGas Development Systems, LLC applied to the WV Department of Environmental Protection, Division of Air Quality (DAQ) for a construction permit to build an Ammonia Production Facility located off of Right Fork Ben's Creek Road near Wharncliffe, Mingo County, WV, at latitude 37.61577 and longitude -81.92736. A preliminary evaluation has determined that all State and Federal air quality requirements will be met by the proposed construction. The DAQ is providing notice to the public of an open comment period for Permit Application R13-3622.

The following potential emissions will be authorized by this permit action: Carbon Monoxide, 13.39 tons per year (TPY); Oxides of Nitrogen, 52.52 TPY; Particulate Matter less than 2.5 microns, 0.40; Particulate Matter less than 10 microns, 0.40 TPY; Particulate Matter, 0.40 TPY; Sulfur Dioxide, 0.18 TPY; Volatile Organic Compounds, 0.55 TPY; and Hazardous Air Pollutants, 0.27 TPY.

Written comments or requests for a public meeting must be received by the DAQ before 5:00 p.m. on Friday, February 2, 2024. A public meeting may be held if the Director of the DAQ determines that significant public interest has been expressed, in writing, or when the Director deems it appropriate.

The purpose of the DAQ's permitting process is to make a preliminary determination if the proposed construction will meet all State and Federal air quality requirements. The purpose of the public review process is to accept public comments on air quality issues relevant to this determination. Only written comments received at the address noted below within the specified time frame, or comments presented orally at a scheduled public meeting, will be considered prior to final action on the permit. All such comments will become part of the public record.

Joe Kessler, PE  
Engineer  
WV Department of Environmental Protection  
Division of Air Quality  
601 57th Street, SE  
Charleston, WV 25304  
Telephone: 304/926-0499, ext. 41271  
Email: [joseph.r.kessler@wv.gov](mailto:joseph.r.kessler@wv.gov)

Additional information, including copies of the draft permit, application, and all other supporting materials relevant to the permit decision may be obtained by contacting the engineer listed above. The draft permit and engineering evaluation may also be downloaded at:

<https://dep.wv.gov/daq/permitting/Pages/NSR-Permit-Applications.aspx>



Kessler, Joseph R <joseph.r.kessler@wv.gov>

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## RE: TG Permit

1 message

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Patrick E. Ward <PEWard@potesta.com>

Wed, Dec 20, 2023 at 1:17 PM

To: "Kessler, Joseph R" <joseph.r.kessler@wv.gov>

Cc: Adam Victor <adam@tgds.com>, "Ronald R. Potesta" <RRPotesta@potesta.com>, "Rhonda L. Henson" <rlhenson@potesta.com>

See attached.

The flow rates for shutdown have been removed from confidential status per the supplier. See PDF Page 150. Total flow to the flare for shutdown is provided as 100,065.1 Nm<sup>3</sup> (Front End) and 453,500 Nm<sup>3</sup> (Haber Bosch Process). Converting to scf that is a total of 20,659,030 ft<sup>3</sup> or 21 mmft<sup>3</sup> per shutdown.

Revisions made are listed below.

PDF Page 65, Attachment J, corrected typo on controlled NO<sub>x</sub> for Startup Steam Generator and CO for the Super Heater.

PDF Page 69 Attachment J, modified VOC emissions and added HAPS of 10-3 or larger per request and also Total HAPS based on natural gas.

PDF Page 118, Attachment L, fixed heat rating for Super-Heater.

PDF Page 124, modified VOC emissions and added HAPs emissions.

PDF Page 140, 141, and 142, Calculations, modified VOC emissions and added HAP emissions.

PDF Page 145 and 146, modified note for fugitives emission factors source. This is actually in AP-42 Chapter 5, under Related Documents, so I expanded the note.

PDF Page 150, removed the flow rates from confidential status.

Let me know if you have any questions.

Regards,

Patrick Ward

Potesta & Associates, Inc.

[7012 MacCorkle Avenue, S.E.](#)

[Charleston, West Virginia 25304](#)

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Fax: (304) 343-9031

This electronic communication and its attachments contain confidential information. The recommendations and/or design data included herein are provided as a matter of convenience and should not be used for final design or ultimate decision making. Rely only on the final hardcopy materials bearing the consultant's original signature and seal. If you have received this information in error, please notify the sender immediately.

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**From:** Kessler, Joseph R <[joseph.r.kessler@wv.gov](mailto:joseph.r.kessler@wv.gov)>  
**Sent:** Wednesday, December 20, 2023 9:26 AM  
**To:** Patrick E. Ward <[PEWard@potesta.com](mailto:PEWard@potesta.com)>  
**Subject:** TG Permit

Patrick, do you think the revised application will be in today?

--

**Joe Kessler, PE**

Engineer

West Virginia Division of Air Quality

601-57th St., SE

Charleston, WV 25304

Phone: (304) 926-0499 x41271

[Joseph.r.kessler@wv.gov](mailto:Joseph.r.kessler@wv.gov)



**REV. 2 REDACTED R13 Permit Application - Ammonia Prod. Facility -TransGas (22-0132-001).pdf**  
9433K