SIERRA CLUB
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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>

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,

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

cc:
Joe Kessler, Engineer Joseph.R.Kessler@wv.gov

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

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 <beverly.d.mckeone@wv.gov>, Joseph R Kessler <Joseph.R.Kessler@wv.gov>

---------- Forwarded message ---------
From: **Brad Davis** <bradgdavis71@gmail.com>
Date: Wed, Jan 31, 2024 at 11:54 AM
Subject: Request for Extension
To: <LAURA.M.CROWDER@wv.gov>

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 <joseph.r.kessler@wv.gov>

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 <beverly.d.mckeone@wv.gov>, Joseph R Kessler <Joseph.R.Kessler@wv.gov>

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

---------- 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 <LAURA.M.CROWDER@wv.gov>
CC: Nina McCoy <ninamccoy5@gmail.com>

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 Wharncliff.

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>

Comment Period Extension Request

1 message

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 Countyand 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

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

--

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

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 57th St., SE
Charleston, WV 25304
Via e-mail to: 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 complied 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 not 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,

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

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

Feb. 28, 2024

Joseph Kessler
WVDEP – Division of Air Quality
601 57th St., SE
Charleston, WV 25304
Via e-mail to: Joseph.r.kessler@wv.gov

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

Dear Mr. Kessler:

Please accept the following additional comments supplementing our Feb. 1, 2024 comments on behalf of the WV Chapter of Sierra Club, and our approximately 2600 members. We ask that you consider both these and the original Feb. 1 comments in your final permit determinations.

1) We appreciate the decision by WV-DAQ to extend the comment period after initially rejecting 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, as well as incorrect statements from some speakers at the public hearing, we learned from US-DOE 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. The extension of the comment period is a start at allowing citizens to comment on technical permits, but many of the issues are not informed by a comprehensive assessment of all site impacts and thus citizens are still without adequate opportunities for input or meaningful involvement in a potentially precedent-setting permit.

2) We remain 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 again recommend that the draft permit**

be withdrawn until a complete analysis of all air emissions from the site can be complied and circulated for public comment.

3) We support and endorse the comments from People Over Petro Coalition, et al. which provide many excellent technical analyses and further justify our concern that this facility is being inappropriately permitted as a Minor source. Those comments document many significant underestimates of the Potential To Emit, resulting in inappropriate and potentially unachievable permit limits. In the past, WV-DAQ has argued that the applicant would be responsible for meeting those permit limits. But there have been more than a few cases when a Notice of Violation for emissions exceedances results in a Consent Order that simply directs the applicant to file a new permit application with limits that legalize those higher emissions without any additional pollution controls. Thus, WV-DAQ has a duty to conduct valid independent analyses and issue permit requirements that realistically reflect the requirements of the Clean Air Act, and **must not accept the applicant's assertions at face value**.

4) We reiterate our comments at the public hearing when WV-DAQ quoted WV State Statutes at 22-5-1 asserting that the agency has a duty to issue timely permits. What WV-DAQ left out was the broader state policy in the section requiring WV-DAQ to protect human health and safety and to prevent injury to plant and animal life. The economic development and environmental protection interests must be balanced in the public interest, and the one-sided presentation does not reflect that requirement for balance. The proposed carbon capture and sequestration to limit emissions of greenhouse gases is meaningless if those requirements are not included in the air pollution permit. The assertion that carbon dioxide is not toxic was incorrect, as concentrations in the atmosphere as low as 4 % are immediately dangerous to life. Furthermore, the US Supreme Court has affirmed that carbon dioxide is an air pollutant and emissions can be regulated. **We urge WV-DAQ to assert its moral and statutory responsibility to protect human health and the environment by requiring a permit that regulates all relevant greenhouse gas emissions.**

5) The proposed permit fails to regulate ammonia emissions adequately. In addition to its direct threat to human health, ammonia can contribute to secondary formation of ultra-fine particulates (PM2.5) in the atmosphere, but this is not addressed in the permit. **We recommend that the PM2.5 limits be specified explicitly, and that emissions estimates incorporate secondary PM2.5 formation. Ammonia emissions estimates must include contributions from storage and transportation, not just the production facilities.**

6) Monitoring requirements in the permit are woefully inadequate. There does not appear to be any on-going monitoring of criteria pollutants or HAPs from the main plant stack, either during start-up or steady state operations. Nor are fugitive emissions monitored or even identified in the draft permit. In fact, section 4.1.9 merely requires that the applicant submit an administrative update to identify those after start-up. The only evidence of monitoring is the requirements in 4.2 that the applicant disclose the maximum design capacity limitations. As such, the permit may not be practically enforceable, contrary to the requirements of the Clean Air Act. **We recommend that Continuous Emissions Monitors for criteria pollutants, and explicit, enforceable requirements for monitoring HAPs, be required at the facility.**

7) We also recommend that the permit include requirements for notifying, equipping, and training of first responders in the event of an accident. Because carbon dioxide is

heavier than air, large releases of carbon dioxide tend to hug the ground and may not disperse readily. Carbon dioxide is colorless, odorless and tasteless, and cannot be easily detected without appropriate monitoring equipment. Furthermore, high concentrations of carbon dioxide, such as may occur during accidents with CCS facilities, may inhibit internal combustions engines, stranding first responders in hazardous conditions.

Thank you for the opportunity to provide these additional comments.

Sincerely,

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

2/21/24 WVDEP TransGas Adam's Fork Ammonia Project Public Hearing

Testimony

Thank you for the opportunity to testify. My name is Lucia Valentine and I am the West Virginia Field Organizer for Moms Clean Air Force. I am from Shepherdstown, West Virginia and have lived in the mountain state my whole life. On behalf of our 6,600 West Virginia members, Moms Clean Air Force is urging the WVDEP to oppose TransGas' Adams Fork Energy ammonia project as it poses serious health and safety threats to our communities.

If built, it would become the second-largest ammonia-producing facility in the US. Ammonia is a harmful chemical and readily migrates to moist areas of the body, and high levels can irritate and burn the skin, mouth, throat, lungs, and eyes, causing respiratory damage or even death. Children are especially vulnerable to harm from toxic chemicals. Children breathe more air per unit of body weight than adults and therefore can receive higher doses of pollution. Children's lungs and brains are still developing until early adulthood so toxic air pollution exposures can have harmful effects that can last a lifetime and even shorten life.

The proposed ammonia facility further poses a threat to public health as it could also increase fracked natural gas activity since this is the building block for ammonia. Fracked natural gas operations, including pipelines and compressor stations, can cause air and water pollution. Scientific studies show an association of oil and gas operations to increased risk of serious health harms, like asthma, adverse birth outcomes, cancer, and premature death for elderly residents.

As it stands, Adams Fork's air permit fails to limit and even monitor dangerous emissions, including hydrogen sulfide and particulates. And rules outlined in the Clean Air Act and by the EPA will not apply to the facility, leaving community members without regulatory safeguards to protect health. This facility would be able to emit harmful pollution without monitoring, reporting, or control technologies.

The public is missing critical information necessary to evaluate the merits and substance of the draft permit and the company's planned operations. The DAQ should not approve this permit until these details have been disclosed and the public has been given additional time for review.

The proposed Adams Fork project also plans to capture and store the facility's CO2 emissions beneath the site. Unfortunately, many uses of carbon capture and storage come with significant risks to public health and safety, questionable climate benefits, and potential reliance on fossil fuels for decades to come. To date, existing CCS projects don't have an impressive track record. They can be heavily polluting and energy intensive, and they can harm already overburdened Black, Brown, and low-income communities.

Protecting the public health of our children needs to be the number one priority of the DAQ and we urge the rejection of this permit proposal.

To: Joseph Kessler

West Virginia Department of Environmental Protection

Division of Air Quality

601 57th Street, SE

Charleston, WV 25304

RE: Comments on Draft Air Permit for TransGas Development Systems, LLC's

Mingo County Ammonia Plant, Application No. R13-3622

Dear Mr. Kessler,

As a resident of the state of West Virginia, I am writing to urge the WVDEP *not* to approve the draft air permit for the proposed TransGas/Adam's Fork ammonia project. This permit should be denied for the following reasons:

- TransGas's air permit application underestimates what the plant is actually capable of emitting. As a result, it allows TransGas to avoid important public health and air quality protections. Instead of figuring out what TransGas can actually emit, DAQ allowed TransGas to rely on outdated boiler-plate estimates that are based on average emissions. This means they don't account for the Facility's *maximum* emissions. Our air quality laws, including the Clean Air Act and WV's Pollution Control Act, base their requirements and standards on maximum emissions. TransGas's application artificially lowers its maximum emissions by relying on incorrect assumptions. This has deprived the public and members of the surrounding community of the full protections that should apply.

- TransGas's air permit application pretends like the flares are capable of controlling more pollution than is realistic. They pretend like they can consistently achieve a 98% destruction of all emissions, but this is completely unsupported. Studies show it is more realistic to assume 91% destruction of emissions from flares. When you are talking about this much emissions, that is a significant difference. This is another way DAQ is allowing TransGas to underestimate its emissions and skirt legal protections.

- Plants like this have fugitive emissions, and plenty of them. The application does not even look at what fugitive emissions generally are from ammonia plants, let alone what they will be from

this specific plants. These emissions must be accounted for to protect our air quality and public health and to determine what protections should apply.

- TransGas's air permit application is incomplete. It does not include the final design for the plant and leaves many air emissions totally unaccounted for. For example, it does not account for the fact that there will be particulate matter emitted from the two flares. It also assumes there will only be emissions from the flares during startup and shutdown. This is impossible because chemical plants always have extra emissions due to upset conditions. The application ignores this reality.

- Ammonia is dangerous and explosive, yet the permit does nothing to protect the surrounding community from these risks. The application does not even regulate the ammonia at the facility, despite its potential emissions and the known dangers of storage and transportation associated with ammonia facilities.

- The area surrounding the facility is low-income, already has lower life-expectancy than many areas of the state, and has a high percentage of people living with disabilities. As a result, federal law requires DAQ to make additional effort to understand the impact of this facility on the community and work to reduce any environmental burdens. DAQ has not done that. DAQ needs to identify and mitigate harms from the ammonia facility, including accurate emissions, ammonia storage risks, and any risks of carbon capture infrastructure or CO2 emissions. In addition, DAQ should take more effort to conduct outreach in the local community and offer more public participation so people can make informed comments on the Application.

Additionally, I believe the WVDEP has failed to consider a land stability survey of the proposed construction site. This facility is planned for an area with historic heavy coal mining practices which does compromise ground stability and the impacts of climate change can also contribute to ground stability issues. Before any permit is issued to TransGas for the construction of this facility, I implore the DEP to do a stability survey.

And finally, I have great concern over this facility proposing to use "recirculated mine water" in their operating procedure. The WVDEP would likely be unable to access said water to evaluate if TransGas would be contaminating it in some way. Also, we have historic evidence that water inside mines can often migrate elsewhere, as seen when the WVDEP allowed coal companies to dispose of toxic coal slurry in underground minds and subsequently poisoned communities such as Rawl and Printer, WV.

I insist that WVDEP deny TransGas this permit.

Sincerely,

Dustin White

Charleston, WV

EARTHJUSTICE

February 28, 2024

Sent via email: Joseph.R.Kessler@WV.gov

Joseph Kessler
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

RE: **Comments on Draft Air Permit for TransGas Development Systems, LLC's Mingo County Ammonia Plant, Application No. R13-3622**

On behalf of People Over Petro Coalition, and with Earthworks, Center for International Environmental Law (CIEL), Climate Reality Project, and Center for Coalfield Justice, we respectfully submit the following comments on the West Virginia Department of Environmental Protection, Division of Air Quality's ("DAQ") draft permit to construct, issued to TransGas Development Systems, LLC ("TransGas") for an ammonia manufacturing facility in Mingo County, West Virginia ("Facility").

I. INTRODUCTION

The Application and Draft Permit raise issues and deficiencies that must be addressed before DAQ can issue a final permit. Specifically, the Draft Permit 1) improperly applies an exemption from Title V permitting; 2) underestimates the Facility's potential to emit; and 3) fails to protect human health and the environment in violation of West Virginia's Air Pollution Control Law.

These flaws, described more fully below, result in the Facility avoiding important major source permit evaluations and protections, including requirements to regulate its CO_2 emissions, install more protective technology, and demonstrate that the Facility's emissions increases would not cause or contribute to a violation of health-based air quality standards. These harms are particularly concerning given the high level of environmental justice indicators in the community surrounding the Facility.

II. FACTUAL BACKGROUND

TransGas proposes to convert an "existing methanol-to-gasoline permit to an ammonia production facility" on a former reclaimed surface mining site.[1] The Facility—consisting of six ammonia fired steam generators, six preheaters and super heaters, and six emergency engines—would be one of the largest ammonia facilities in the United States, producing 2.16 million tons of ammonia each year.[2] The Draft Permit calculates potential emissions for the Facility under the threshold for "major source" permitting for criteria and hazardous air pollutants and proposes to permit the facility as a "minor source" under the Federal Clean Air Act and the West Virginia Air Pollution Control Law.

TransGas has estimated that its process will produce 2.873 million tons per year ("TPY") of CO_2, and has stated intentions to capture 99.3% of CO_2 emissions and sequester the CO_2 in a saline aquifer formation for permanent storage.[3] However, because DAQ proposes to permit the Facility as a "minor source," the Draft Permit contains no requirement to capture and store this CO_2 on site. [4] Instead, the Draft Permit allows TransGas to emit its CO_2 directly to the atmosphere.[5]

To produce ammonia, the Facility would heat methane gas to "crack" it into hydrogen, carbon monoxide (CO), carbon dioxide (CO_2), and methane components, which are then referred to as "syngas."[6] After the cracking process, the syngas would be sent to a conversion system where the CO is converted into more CO_2 in order to increase the amount of hydrogen in the syngas.[7] The Facility would then convert the remaining hydrogen gas to ammonia in vapor form, chill that vapor into liquid, and store it in a 22,500 lb. tank. The ammonia produced would eventually be used as fertilizer or as material in the manufacturing of plastic resins, explosives, or other chemicals.[8] The Engineering Evaluation contains incongruous information about how the Facility would store and transport the ammonia. First, it states "the liquid ammonia

[1] *See* Engineering Evaluation/Fact Sheet prepared by the West Virginia Department of Environmental Protection, Division of Air Quality, p. 2 (hereinafter "Engineering Evaluation").
[2] *See id*. at p. 2.
[3] This information was taken from a presentation given by the applicant.
[4] Engineering Evaluation, p. 2.
[5] *See id.*
[6] *Id*.
[7] *Id.* at p. 3.
[8] *Id.* at p. 2.

will be loaded onto trucks and transported off-site."[9] Then, it later states "[n]o 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."[10]

III. AIR POLLUTION CONTROL LAW BACKGROUND

Congress created the Federal Clean Air Act ("CAA") to "protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare..."[11] The CAA requires the U.S. Environmental Protection Agency ("US EPA") to establish two sets of standards to accomplish those goals: national ambient air quality standards ("NAAQS") and specific emission control technology requirements.[12] NAAQS are designed to protect public health and welfare with an "adequate margin of safety."[13] These standards apply to "criteria pollutants," six pollutants that EPA has determined may endanger the public health or welfare. These pollutants include sulfur dioxide, carbon monoxide ("CO"), nitrogen dioxide ("NOx"), ozone, particulate matter ("PM"), and lead.[14] States have primary responsibility for ensuring compliance with the NAAQS by developing state implementation plans ("SIPs").[15] A State must designate every area within its borders as "attainment," "nonattainment," or "unclassifiable" with respect to each NAAQS, and the State's SIP must include permitting programs for stationary sources consistent with the CAA.[16] West Virginia has adopted the national air quality standards promulgated by US EPA under 40 C.F.R. Part 50.[17]

Once US EPA sets these standards, states bear primary responsibility under the CAA for regulating sources of air pollution and attaining ambient air quality standards.[18] As described below, sources that emit or have the potential to emit certain pollutants above a certain threshold (i.e. "major source" or "major emitting facilities"), are regulated differently and more strictly than other sources, known as "area sources" or "minor sources."

[9] *Id*. at p. 3.
[10] *Id*. at p. 4.
[11] 42 U.S.C. § 7401(b)(1).
[12] 42 U.S.C. §§ 7408(a)(1)(A), 7409(b).
[13] 42 U.S.C. § 7409(b).
[14] *See generally* 40 C.F.R. Part 50.
[15] 42 U.S.C. § 7410.
[16] 42 U.S.C. § 7410(a)(2)(C), (I).
[17] W. Va. Code R. 45-8-3.1.
[18] *See e.g.*, 42 U.S.C. §§ 7401 (state responsibility) & 7410 (state implementation plans).

A. The PSD Permitting Program

Areas where a proposed air pollution source is designated as "attainment" for NAAQS (such as the area where the proposed facility would be located) are subject to the CAA's Prevention of Significant Deterioration ("PSD") Program.[19] The purpose of the PSD program is to "protect public health and welfare from any actual or potential adverse effect" which may reasonably be anticipated to occur from air pollution.[20] In addition, the PSD program ensures "that any decision to permit increased air pollution in [an attainment area] is made only after careful evaluation of all the consequences of such a decision and after adequate procedural opportunities for informed public participation in the decision-making process."[21] In short, the PSD program is intended to prevent areas that currently meet NAAQs from developing unhealthy air by managing industrial growth and related emissions. West Virginia's air pollution control regulations adopt the CAA's PSD program and the Federal regulations at 40 C.F.R. § 51.166.[22] West Virginia's PSD program is also specifically purposed to ensure "the preservation of existing clean air resources, to protect the public health and welfare from any adverse effects which might occur even at air quality levels better than the National Ambient Air Quality Standards, and to preserve, protect, and enhance the air quality in areas of special natural, recreational, scenic, or historic value."[23] West Virginia has a US EPA SIP-approved PSD program.[24]

A "major emitting facility" must obtain a PSD permit and is subject to stricter regulatory controls than sources that do not fall under the definition of "major emitting facility." The CAA defines a "major emitting facility" as any stationary source with the potential to emit ("PTE") 250 TPY of any air pollutant, or 100 tons per year for certain types of sources, including petroleum refineries, sulfur recovery plants, carbon black plants, and, relevant to the current Application, chemical processing plants.[25] Major emitting facilities (but not minor ones) are subject to the "best available control technology" ("BACT") for each pollutant subject to regulation under the PSD program.[26] The Act defines BACT as "an emission limitation based on the maximum degree of [pollutant] reduction. . .which the [State] permitting authority, on a case-by-

[19] 42 U.S.C. §§ 7470-7479.
[20] 42 U.S.C. § 7470(1).
[21] *Id*. at § 7470(5).
[22] W. Va. Code R. 45-14-1.1.
[23] *Id.* at 45-14-1.1.a.
[24] 51 Fed. Reg. 12,517 (Apr. 11, 1986).
[25] 42 U.S.C. § 7479(1).
[26] 42 U.S.C. § 7475(a)(4); W. Va. Code R. 45-14-7.

case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for [the] facility."[27] BACT is an assurance that the emitting source is using the best available technology to limit emissions of regulated pollutants.[28] In addition, the PSD program requires a demonstration, based on a modeling analysis, that any allowable emissions increase would not cause or contribute to a violation of any ambient air quality standard, or any applicable maximum allowable increase over the baseline concentration in the area.[29]

Finally, as of January of 2011, greenhouses gases such as CO_2 are regulated pollutants under the PSD program.[30] Once it is determined that the CO_2 emissions meet a certain threshold, a determination of BACT is done in the same manner as other PSD regulated pollutants.[31]

B. The Title V Permitting Program

In addition to the PSD Program, the 1990 amendments to the CAA created the Title V permit program, which applies to all major sources of air pollution.[32] A principal purpose of the Title V program is to combine all air emissions requirements for major sources into a single document, and to create mechanisms for tracking compliance with those requirements.[33] This, in turn, enhances the source's ability to comply with applicable air emissions requirements and the state's and public's ability to monitor a facility's compliance with its air emissions requirements.[34] "Major source" is defined as any stationary source that emits or has the potential to emit ten (10) TPY of any hazardous air pollutant ("HAP"), twenty-five (25) TPY of any combination of hazardous air pollutants, or one-hundred (100) or more of any criteria air pollutant.[35] In addition, a source that doesn't meet the potential to emit thresholds may be required to obtain a Title V permit under other circumstances, including for certain New Source

[27] 42 U.S.C. § 7479(3).
[28] *See Friends of Buckingham v. State Air Pollution Control Bd.*, 947 F.3d 68, 72 (4th Cir. 2020).
[29] 40 C.F.R. § 52.21(k)-(l); W. Va. Code R. 45-14-9.
[30] 75 Fed. Reg. 31514 (June 3, 2010).
[31] US EPA, PSD and Title V Permitting Guidance for Greenhouse Gases, EPA-457/B-11-001, p. 17 (March 2011), available at https://www.epa.gov/sites/default/files/2015-12/documents/ghgpermittingguidance.pdf
[32] *See* 42 U.S.C. §§ 7661-7661f.
[33] *See* 57 Fed. Reg. 32,250, 32,251 (Jul. 21, 1992); *see also* 42 U.S.C. § 7661c(a)-(c) (permit requirements and conditions); 40 C.F.R. § 70.1(b).
[34] *See* 57 Fed. Reg. 32,251.
[35] 42 U.S.C. § 7412(a)(1); 42 U.S.C. § 7602(j); 40 C.F.R. § 70.2; 40 C.F.R. § 63.41.

Performance Standards ("NSPS"), when the source is subject to National Emission Standards for Hazardous Air Pollutants ("NESHAP"), affected sources under acid rain rules, and solid waste incineration units under Section 129 of the CAA.[36]

Pursuant to Section 502(b) of the Act, the EPA promulgated regulations implementing the requirements of Title V and establishing the minimum elements of a permit program to be administered by any state or local agency.[37] The CAA prohibits the operation of a major source except in compliance with a valid Title V permit.[38] The West Virginia DEP, by and through West Virginia's federally-approved SIP, administers the Title V program in the State. West Virginia's Title V rules are found at W. Va. Code R. 45-30. West Virginia's Title V regulations track the EPA's regulations of the same.

Overall, compliance with the Title V program results in increased source accountability and better enforcement results. In addition, major sources of HAPs must comply with stricter technology-based emission standards than minor sources. Major sources of HAPs require the maximum degree of reduction in emissions that the EPA deems achievable, also known as "maximum achievable control technology" or MACT standards.[39] Finally, although state permitting authorities issue the relevant permits, all permits for new major sources are subject to EPA review and veto.[40]

IV. DAQ IMPROPERLY EXEMPTS THE FACILITY FROM TITLE V PERMIT REQUIREMENTS

Both the Clean Air Act and West Virginia air permitting regulations mandate that minor sources obtain a Part 70 (Title V) operating permit whenever certain NSPS or NESHAP standards apply to that facility.[41] DAQ's own description of the Facility's super heaters makes clear that NSPS regulations for fossil-fuel-fired steam generators (40 CFR 60 Subpart D) should apply to the Facility. However, in the Draft Permit, DAQ

[36] EPA, *Who Has to Obtain a Title V Permit?*, available at https://www.epa.gov/title-v-operating-permits/who-has-obtain-title-v-permit (last updated May 24, 2023).
[37] 57 Fed. Reg. 32250; 42 U.S.C. § 7661a(b).
[38] *See* 42 U.S.C. § 7661a(a); 40 C.F.R. § 70.1(b).
[39] 42 U.S.C. § 7412(d).
[40] *See* 42 U.S.C. § 7661d; *Sierra Club v. Otter Tail Power Co.*, 615 F.3d 1008, 1011–12 (8th Cir. 2010); *Romoland Sch. Dist. v. Inland Empire Energy Ctr., LLC*, 548 F.3d 738, 742–43 (9th Cir. 2008).
[41] W. Va. Code R. 45-30-3.1.a.2; *see also* EPA, *Who Has to Obtain a Title V Permit?*, available at https://www.epa.gov/title-v-operating-permits/who-has-obtain-title-v-permit (last updated May 24, 2023).

improperly applies an exemption for "process heaters," allowing the Facility to evade the NSPS and the Title V permit requirement.[42]

The Federal regulations require NSPS for small industrial steam generating units, and define "steam generating unit" broadly to include "a device that combusts any fuel and produces steam or heats water or heats any heat transfer medium."[43] The regulations provide an exemption for "[p]rocess heaters," 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."[44] DAQ does not dispute that the super heaters at the Facility are steam generating units, but found that the super heaters qualified as "process heaters," and therefore the exemption applies. [45]

DAQ does not provide any support for its position that the super heaters qualify as "process heaters." In fact, DAQ's own description of the heaters contradicts the assertion that the process heater exemption applies: DAQ describes that the heaters 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 start up."[46] Burning excess hydrogen does not in any way treat the hydrogen as a reactant or catalyst. Rather, hydrogen is used as a fuel. Thus, the NSPS regulations for steam generating units must apply, and the Facility must apply for a Title V permit.

By improperly relying on the process heater exemption, the Draft Permit unlawfully allows the Facility to avoid additional emissions standards, monitoring and reporting requirements, as well as the requirement to obtain a Title V permit.[47]

[42] DAQ acknowledges that both NSPS—40 CFR 60 Subpart JJJJ—and NESHAP—40 CFR 62 Subpart ZZZZ—also generally apply to ammonia production facilities. However, DAQ determined that "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." The exemptions at 40 C.F.R. §§ 60.4230(c) and 63.6585(d) state that area sources are not required to obtain a Title V permit solely because they have to meet those subparts. The Facility still needs to obtain a Title V permit if it is required to meet the NSPS standards at 40 C.F.R. Subpart D for fossil fuel fired steam generators.
[43] 40 C.F.R. § 60.41c.
[44] *Id.*
[45] Engineering Evaluation, p. 15.
[46] *Id*. at p. 2.
[47] *See generally* 40 C.F.R. Part 60 Subpart D.

V. THE APPLICATION UNDERESTIMATES THE FACILITY'S POTENTIAL TO EMIT

DAQ acknowledges that if the potential to emit for any criteria pollutant is 100 TPY for this project, the Facility must obtain a PSD and Title V permit. The "potential to emit" is "**the maximum capacity** of a stationary source to emit a pollutant under its physical and operational design."[48] Potential to emit "is not to be confused with actual emissions, which may be significantly lower."[49] In addition, although physical and operational design are to be considered, there must be specific measurable restrictions in the permit sufficient to ensure those designs will be implemented.[50] Operational promises or conditions that lack criteria to provide an objective basis for a calculated numeric reduction or to permit effective enforcement are not sufficient to justify a reduction in potential emissions.[51]

The Application underestimates the Facility's potential emissions by relying on 1) unsupported claims regarding the efficacy of its pollution control technologies and emission calculations based on average, not maximum emissions; and 2) an incomplete application that omits numerous types of emissions that would be expected for this Facility. [52] By basing the Draft Permit on TransGas' faulty representation of its potential to emit, DAQ wrongly proposes to permit the Facility as a minor source.

A. The Application Relies on Unsupported Claims and Faulty Emissions Factors to Underestimate the Facility's Potential to Emit

The Application relies on faulty or unsubstantiated assumptions in the emissions calculations for the Facility's three main emission sources: the combined stack equipped with a Selective Catalytic Reduction ("SCR") unit used to control NOx emissions; a

[48] 40 C.F.R. § 51.165(a)(1)(iii); W. Va. Code R. 45-30-2.31 (emphasis added).
[49] *Voigt v. Coyote Creek Mining Co., LLC*, 329 F. Supp. 3d 735, 772 (D.N.D. 2018), aff'd, 980 F.3d 1191 (8th Cir. 2020).
[50] *See, e.g.*, U.S. EPA, *Guidance on Limiting Potential to Emit in New Source Permitting* (Memorandum from Terrell Hunt and John Seitz), pp. 6-7, available at https://www.epa.gov/sites/production/files/2015-08/documents/lmitpotl.pdf (June 13, 1989).
[51] *Id.*
[52] *See* Issues Noted with the Proposed TransGas Ammonia Production Facility, Mingo County, WV (Application No. R13-3622, Plant ID: 059-00102) (hereinafter "Dr. Sahu Report"), attached and incorporated herein as Exhibit 1. Commenters do not waive any statement in the Report just because it may not specifically be restated in this Comment.

large gas process flare; and a smaller ammonia flare.[53] As a result, the Application underestimates the Facility's Potential to Emit.

1. *The Application assumes an unrealistic and unsupported destruction efficiency for the SCR Unit.*

The Application inappropriately relies on vendor marketing information to assume that the SCR unit will remove 99% of NOx emissions. The only support for this assumption is a single sentence contained in vendor marketing materials included with the Application that states "99% NOx removal is **achievable**…"[54] These materials are not a vendor warrantee and do not resemble vendor warrantees more commonly relied on in air permit applications. Moreover, "achievable" is a far cry from guaranteed removal, and the materials include no information as to under what conditions 99% removal would occur. The brief, unsubstantiated marketing claim does not provide a reasonable basis for DAQ to accept the Application's assumption that the SCR will remove 99% of NOx emissions.

2. *The Application inappropriately relies on AP-42 emission factors for numerous emissions scenarios.*

The Application inappropriately relies on general emissions factors from AP-42 for potential to emit calculations for many of the Facility's emissions scenarios, including startup conditions for the steam heaters,[55] the emergency engines, and for fugitive emissions.[56] AP-42 is a resource developed by US EPA for estimating *average* emissions for a source activity.[57] The attached report of Dr. Ron Sahu repeatedly notes that AP-42 emissions factors are inappropriate for determining a facility's PTE.[58] US EPA explicitly recommends against using AP-42 emissions factors "as source-specific permit limits and/or as regulation compliance determinations. . ."[59] As US EPA explains, "[b]ecause emission factors essentially represent an average of a range of emission rates, approximately half of the subject sources will have emission rates greater than the emission factor and the other half will have emission rates less than the

[53] *See* Engineering Evaluation.
[54] Dr. Sahu Report, p. 1 (citing Application, p. 137) (emphasis added).
[55] Application, p.10.
[56] *Id.* at 115.
[57] U.S. EPA, *AP-42 Compilation of Air Emissions Factors*, Vol I, Fifth Edition, Introduction, p.2, available at https://www.epa.gov/sites/production/files/2020-09/documents/c00s00.pdf (Jan. 1995).
[58] *See generally* Dr. Sahu Report.
[59] *Id*.

factor."[60] As a result, US EPA has stated that AP-42 factors do not yield accurate emissions estimates for individual sources.[61]

In November 2020, US EPA issued a "Reminder About Inappropriate Use of AP-42 Emission Factors" to remind permitting agencies and regulated entities that "these factors are not likely to be accurate predictors of emissions from any one specific source, except in very limited scenarios," based on US EPA's concern that these entities "may incorrectly be using AP-42 emission factors in place of more representative source-specific emission values for Clean Air Act permitting and compliance demonstration purposes."[62] Thus, the Application improperly relied on AP-42 emission factors to estimate the maximum emissions for multiple single sources, and these estimates cannot serve as a basis for DAQ to find that Title V or PSD Regulations do not apply to the Facility.[63]

3. *The Application underestimates emissions from the flares because it overestimates flare destruction efficiency and fails to account for all NOx emissions.*

The Application overestimates flare destruction efficiency by relying on an inapplicable AP-42 emissions factor and neglecting to account for NOx emissions from ammonia oxidation in the waste gases.

In addition to the general flaws of using AP-42, the emissions factor that TransGas uses to assume a 98.5% flare destruction efficiency was developed for flares using propylene and propane as fuel—these flares do not contain the same compounds as the waste gases the Facility proposes to combust.[64] Moreover, the Application does not include NOx emissions produced by the oxidation of ammonia in the waste gases to

[60] *Id*.
[61] *See In the Matter of Cargill, Inc.*, Petition IV-2003-7 (Amended Order) at 7, n.3 (Oct. 19, 2004); *In re Peabody Western Coal Co*., CAA Appeal No. 04-01, 12 E.A.D. 22, 38-39 (EAB Feb. 18, 2005).
[62] Office of Enforcement and Compliance Assurance, *U.S. EPA, Enforcement Alert: EPA Reminder About Inappropriate Use of AP-42 Emission Factors*, available at https://www.epa.gov/sites/production/files/2021-01/documents/ap42-enforcementalert.pdf (Nov. 2020).
[63] *In re Peabody*, 12 E.A.D. 36-37 ("While PTE is intended to identify the highest possible level of emissions that a facility is capable of releasing in light of its physical design and operational characteristics (considering enforceable restrictions on emission capacity), emission factors are intended to provide a generalized estimate of the average emissions performance of a particular type of emission source."); 40 C.F.R. §§ 51.166(b) & 52.21(b)(4); Report, pp. 8-14.
[64] Dr. Sahu Report, p. 2.

the flare. The Application provides no reason for this omission.[65] Thus, the Application likely does not properly account for NOx emissions from the flare.[66]

Destruction efficiency for flares is commonly over-estimated, and should be scrutinized when determining a facility's PTE. One study found that destruction efficiencies for flares measuring methane emissions from gas processing plants and other natural gas operations averaged around 91%, despite operators assuming an average destruction efficiency rate of 98%.[67] Small percentage errors in destruction efficiency estimates can produce emission discrepancies with large impacts.[68] Moreover, because PTE should represent maximum potential emissions, they are more properly based on the lowest achievable destruction efficiency, rather than the maximum potential destruction efficiency used in the Application.

Therefore, TransGas' Application underestimates the flares' PTE for NOx and associated HAPs, and DAQ's Draft Permit impermissibly relies on these faulty values.

4. The Application underestimates fugitive emissions.

The Application underestimates fugitive emissions by relying on inapplicable and underestimated data. In determining potential emissions, the Application must "include fugitive emissions from all quantifiable fugitive emission operations located at the source category. . . in order to determine whether the source is a major source subject to the requirements" of Title V.[69] The Application calculates PTEs for fugitive emissions from equipment leaks based on Table 2-1 from EPA-453/R-95-017.[70] However, the use of EPA-453/R95-017 suffers from the same flaw as using AP-42: the factors are based on *average* emissions, which by definition cannot be an upper bound estimate of emissions.[71] Upper bound emissions are necessary to determine the maximum potential

[65] *Id*.
[66] *See id*.
[67] Genevieve Plant et al., *Inefficient and Unlit Natural Gas Flares Both Emit Large Quantities of Methane*, 377 SCI. 1566, 1566 (2022), available at https://www.science.org/doi/10.1126/science.abq0385
[68] Patrick Anderson et al., *Advocates' Guide to Effective Participation in Environmental Permit Proceedings For New Petrochemical Facilities 77* (2023) ("[I]f a flare with an assumed destruction efficiency of 99% emits 10 tons of VOCs per year, that same flare with an actual destruction efficiency of 95% will instead emit 50 tons of VOCs!"), available at https://labucketbrigade.org/wp-content/uploads/2023/09/FINAL-Petrochemical-Guide-8_30_2023.pdf.
[69] W. Va. Code R. 45-30B-3.1.
[70] Application, pp. 160-161.
[71] *See* EPA-453/R-95-017, Table 2-1, available at https://www.epa.gov/sites/default/files/2020-09/documents/protocol_for_equipment_leak_emission_estimates.pdf.

fugitive emissions from the Facility. Moreover, Dr. Sahu notes that the data developed for this document did not pertain to ammonia plants, and therefore cannot justify potential emissions for fugitives in the Application.[72] Without having data from ammonia plants DAQ cannot confirm fugitive emissions have been calculated from all quantifiable emissions operations.

Thus, the Application's estimated fugitive emissions for the facility are incorrect and unsubstantiated, and the Draft Permit must be denied until maximum potential emissions are calculated.

B. The Application is Incomplete and Therefore Cannot Be Used to Determine PTE

West Virginia's air pollution control regulations require any person proposing to construct, modify, or relocate a stationary source to file a complete permit application with the DAQ.[73] TransGas's Application is incomplete because it fails to include 1) the final complete design of the Facility; 2) particulate matter emissions for the two flares; and 3) emissions for the flares at times other than startup and shutdown. These materials are necessary not only to meet the completeness requirement, but to determine the Facility's PTE.

The Application states that the Facility design is not complete. Without knowing the final design of the Facility, including the final design of processes and use of flares and emissions controls, final emissions calculations are unknown.[74] Thus, DAQ cannot determine the Facility's potential to emit without a complete Application that contains the final design of the Facility.

The Application also neglects to include particulate matter emissions for the two flares, or to calculate any emissions for the flares, except for during startup and shutdown. Dr. Sahu notes "it is impossible for any chemical plant" to not have additional emissions for upset conditions, yet the Application fails to account for these reasonably expected emissions.

[72] Dr. Sahu Report, p. 3.
[73] W. Va. Code R. 45-13-5.4.
[74] Dr. Sahu Report, p. 1.

Altogether, these omissions prevent DAQ from being able to determine the Facility's PTE. DAQ should require a complete Application with all information necessary to determine if the Facility qualifies a major source or major emitting facility.

VI. THE DRAFT PERMIT DOES NOT ENSURE PROTECTION OF HUMAN HEALTH AND THE ENVIRONMENT

The purpose of West Virginia's Air Pollution Control Law is:

> . . . to achieve and maintain such levels of air quality as will protect human health and safety, and to the greatest degree practicable, prevent injury to plant and animal life and property, foster the comfort and convenience of the people, promote the economic and social development of this state and facilitate the enjoyment of the natural attractions of this state.[75]

In accordance with the primary purpose of protecting human health and safety, DAQ is required to deny a permit where the Facility "will violate applicable emission standards, will interfere with attainment or maintenance of an applicable ambient air quality standard, cause or contribute to a violation of an applicable air quality increment, or be inconsistent with the intent and purpose of this rule or W. Va. Code § 22-5-1, et seq. . ."[76] As described more fully below, the Application and the Draft Permit do not ensure protection of human health and the environment, and the Draft Permit is therefore inconsistent with the West Virginia Air Pollution Control Law.

A. Unregulated CO_2 Emissions from the Facility Risk Injury to Human Health and the Environment

TransGas, will need a Class VI underground injection control ("UIC") well permit from US EPA for long-term sequestration of CO_2 to achieve its carbon capture and storage ("CCS") claims.[77] TransGas plans to construct the Facility "on or near January 1, 2024" with operations commencing "approximately 12 months after the beginning of construction."[78] However, TransGas has not applied for a Class VI permit,

[75] W. Va. Code Ann. § 22-5-1.
[76] W. Va. Code R. 45-13-5.7.
[77] *See* 40 C.F.R. § 146.81(b).
[78] Application, Attachment C.

and currently US EPA takes years to process and issue a permit.[79] Thus, TransGas' timeline to operate shows they have no intention of being capable of implementing CCS when they begin operations. As a result, DAQ must assume the Draft Permit would allow the Facility to emit 2.873 million TPY of CO_2 annually. DAQ must consider the impacts of these emissions as part of its duty to protect human health and the environment.

CO_2 accounts for 79% of all greenhouse gas emissions into the atmosphere.[80] Increasing greenhouse emissions increase earth temperature and produce changes in precipitation patterns, storm severity, and sea level.[81] According to US EPA's emissions calculator, TransGas' 2.873 million TPY of CO_2 emissions would be the equivalent of 623,085 gasoline powered vehicles driven for one year, seven (7) natural gas-fired power plants operating per year, or 6,476,215 barrels of oil consumed per year.[82] DAQ must consider the impact of TransGas' enormous potential CO_2 emissions on the environment and its contribution to greenhouse gas emissions before it issues the permit.

Even if TransGas does eventually implement CCS, DAQ must consider the risks involved in capturing and storing the CO_2 from the emission source. Although CO_2 is naturally occurring in the environment, high concentrations of CO_2 can be an asphyxiant by displacing oxygen in the air.[83] The recent rupture of a CO_2 pipeline in Satartia, Mississippi in May of 2022 demonstrates these risks. That rupture led to 45 hospitalizations and hundreds of evacuations of the population nearest to the rupture.[84] Emergency personnel were ill equipped to respond to a CO_2 leak and found that they

[79] *See* US EPA, *Current Class VI Projects Under Review at EPA* (accessed January 27, 2024), available at https://www.epa.gov/uic/current-class-vi-projects-under-review-epa#:~:text=EPA%20aims%20to%20review%20complete,completeness%20of%20the%20submitted%20application.

[80] US EPA, *Overview of Greenhouse Gases*, available at: https://www.epa.gov/ghgemissions/overview-greenhouse-gases

[81] US Energy Information Administration, *Energy and the environment explained*, available at https://www.eia.gov/energyexplained/energy-and-the-environment/greenhouse-gases-and-the-climate.php

[82] US EPA emissions calculator results, available at https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results

[83] USDA, Carbon Dioxide Health Hazard Information Sheet, available at https://www.fsis.usda.gov/sites/default/files/media_file/2020-08/Carbon-Dioxide.pdf

[84] Julia Simon, *The U.S. is expanding CO_2 pipelines. One poisoned town wants you to know its story*, NPR (May 21, 2023), available at https://www.npr.org/2023/05/21/1172679786/carbon-capture-carbon-dioxide-pipeline.

could not start their vehicles because of the elevated levels of CO_2 displacing oxygen in the air.[85] Thus, DAQ's apathy toward whether carbon capture technologies are used contravenes its requirement to ensure protection of human health and the environment.

B. Unregulated Ammonia Production, Storage, and Transportation Risks Injury to Human Health and the Environment

TransGas plans to produce 2.16 million TPY of ammonia, making it one of the largest ammonia facilities in the United States. Ammonia is toxic to humans and wildlife and must be managed carefully to ensure safety and protection of the environment.[86] Yet, the Application and the Draft Permit do not consider or regulate for ammonia production, storage, and transportation in any way. In addition, the FACT sheet accompanying the Draft Permit contains inconsistent information on how the ammonia will be stored and transported—first claiming it will be loaded in trucks on site and elsewhere claiming it will be pipelined and transported by rail.[87] This lack of attention to potential ammonia emissions and releases violates DAQ's mandate to consider human health and safety and to prevent injury to plant and animal life when reviewing an application.

Serious health risks associated with ammonia exposure include decreased lung function and respiratory symptoms. Dangerous ammonia leakage occurs regularly at plants that produce, store, or use ammonia.[88] Accordingly, based on a series of scientific studies recognizing that small ammonia leakage can be dangerous, EPA established a recommended maximum concentration for ammonia designed to protect human

[85] Dan Zegart, *Gassing Satartia: How a CO2 Pipeline Explosion Affected This Mississippi Town, HuffPost,* Aug. 26, 2021, available at https://www.huffpost.com/entry/gassing-satartia-mississippi-co2-pipeline_n_60ddea9fe4b0ddef8b0ddc8f.

[86] Agency for Toxic Substances and Disease Registry, *Toxicological Profile for Ammonia*, September 2004, available at https://www.atsdr.cdc.gov/toxprofiles/tp126.pdf.

[87] *See* Engineering Evaluation, p. 3.

[88] *See* Mitchell, D., *All clear: Ammonia Leak at CF Industries near Donaldsonville, students go home early*, The Advocate (Dec. 2, 2022), available at https://www.theadvocate.com/baton_rouge/news/business/all-clear-ammonia-leak-halted-at-cf-industries-near-donaldsonville-students-go-home-early/article_13dbe402-71a1-11ed-ae12-4b5ab6d51708.html; *see also* Tolan, C. & Chapman, I., *Dangerous chemical leaks have injured workers at one of America's largest meat processors*, CNN.com, available at https://www.cnn.com/2023/05/04/business/tyson-ammonia-leaks-invs/index.html

health.[89] Ammonia is also a precursor to the pollutants PM2.5, which are dangerous when inhaled and have been found to contribute to premature deaths.[90]

DAQ must therefore evaluate potential emissions and leakage from all ammonia production, storage, and transport activities at the facility, and include enforceable measures to prevent and respond to human health risks. The Application and the Draft Permit do not require monitoring and reporting to ensure there are no ammonia emissions or related PM.2.5 emissions. In addition to emissions from the ammonia flare, there will be some related loading/unloading emissions regardless of whether ammonia is stored on site and transported by truck or piped and transported by nearby rail. At minimum, DAQ must require TransGas to monitor for ammonia and PM2.5 emissions, and for leaks and releases during loading/unloading.[91]

In addition to the health risks from routine ammonia emissions and leakage, the proposed Facility poses a major risk to nearby residents from potential accidents, disasters, or other emergency scenarios. Exposure to ammonia emissions is a common cause of industrial-related injuries and fatalities. In one example, a woman was killed after she was overcome by ammonia vapors while driving her car near an ammonia plant located near Swansea, South Carolina.[92] In another example, an ammonia plant near Houston, Texas exploded twice, sending residents and first responders to the

[89] EPA, Toxicological Review of Ammonia Noncancer Inhalation: Executive Summary, (September 2016), available at https://ordspub.epa.gov/ords/eims/eimscomm.getfile?p_download_id=529124; *see* EPA, IRIS Glossary, available at https://www.epa.gov/iris/iris-glossary#:~:text=Acute%20Reference%20Concentration%20(RfC)%3A,of%20deleterious%20effects%20during%20a/.

[90] Plautz, J. *Ammonia, a poorly understood smog ingredient, could be key to limiting deadly pollution*, science.org (Sept. 13, 2018), available at https://www.science.org/content/article/ammonia-poorly-understood-smog-ingredient-could-be-key-limiting-deadly-pollution.

[91] *See e.g. Nw. Env't Def. Ctr. v. Cascade Kelly Holdings LLC*, 155 F. Supp. 3d 1100, 1110 (D. Or. 2015) (outlining a facility's emissions limitation standards for bulk transfer units. The Court also noted that despite these limitations and more "[i]f there had been any less stringent monitoring or testing provisions or if [the permittee] had relied on any more generic or unverified emissions control assumptions in its calculations, the Court might have followed the EPA Environmental Appeals Board's determination in *Peabody*. There, the Board found that the uncertainties inherent in emissions factors and assumed control efficiencies made the Facility's [plant-wide emissions limits] unenforceable. *See Peabody*, 2005 WL 428833, at *10–13.").

[92] *See* Anna Rhett Cobb, *South Carolina woman dies during ammonia leak*, CNN (July 15, 2009) available at https://www.cnn.com/2009/US/07/15/south.carolina.ammonia/.

hospital from ammonia exposure.[93] Despite these demonstrated risks, the Application does not account for any environmental and community costs from accidents, disasters, or other emergencies.

VII. DAQ SHOULD TAKE ADDITIONAL MEASURES TO PROTECT THE SURROUNDING COMMUNITIES FROM ENVIRONMENTAL JUSTICE HARMS AND PROVIDE FOR ADDITIONAL PUBLIC PARTICIPATION

DAQ should not issue the permit until it has complied with environmental justice review requirements mandated by Federal law. Executive Order 12898, issued under the authority of Title VI of the Civil Rights Act, requires that:

> To the greatest extent practicable and permitted by law … each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States . . .[94]

To achieve these directives, both state and federal agencies implementing federal permit programs are required to conduct an environmental justice analysis and consider environmental justice issues in permitting decisions.[95]

Neither DAQ nor the Applicant conducted any kind of analysis to determine if environmental justice issues exist with this proposed permitting decision. However, data taken from the US EPA's Environmental Justice Screening and Mapping Tool shows a number of environmental justice indicators in the 2-mile radius surrounding the facility site listed in the Application.[96] The Climate and Economic Screening data on EPA's Environmental Justice screening tool identifies the area as a disadvantaged

[93] U.S. Chemical Safety and Hazard Board, *Organic Peroxide Decomposition, Release, and Fire at Arkema Crosby Following Hurricane Harvey Flooding*, available at https://www.csb.gov/assets/1/20/final_arkema_draft_report_2018-05-23.pdf?16272.

[94] Exec. Order No. 12898, 59 Fed. Reg. 7629, 7629 (Feb. 11, 1994). As a recipient of federal funding DAQ is required to comply with Title VI of the Civil Rights Act.

[95] *See In re Prairie State Generating Co.*, 13 E.A.D. 1, 95-96 (EAB 2006); *In re Knauf*, 8 E.A.D. 121, 37-38 (EAB 1999).

[96] U.S. EPA, EJ Screen – EPA's Environmental Justice Screening and Mapping Tool (Version 2020), EJ Screen Report, 2 mile Ring Centered at 37.552647,-81.962693, West Virginia EPA Region 3, available at https://ejscreen.epa.gov/mapper/ejscreen_SOE.aspx.

community.[97] According to the EPA's socioeconomic indicators, sixty-four percent of the population surrounding the proposed facility are low income, placing the area in the 90th percentile nation-wide and the 89th percentile in the state.[98] Thus, this area is clearly a low-income population entitled to environmental justice considerations. In addition, the area ranks in the 95th percentile for low life expectancy health indicators and the 99th percentile for persons with disabilities.[99]

In December 2022, EPA released guidance entitled *EJ in Air Permitting: Principles for Addressing Environmental Justice Concerns in Air Permitting*, which outlines key recommendations for permitting authorities to address environmental justice and equity in environmental justice communities.[100] The framework describes eight principles and practices that EPA regional staff should incorporate into permitting decisions and for which they should collaborate with permitting authorities to "facilitate their consideration and application of these same principles in their air permitting actions where appropriate to protect human health and the environment for all affected individuals, including those who live in communities with environmental justice and equity concern."[101]

EPA specifically recommends that permitting authorities "[i]dentify communities with potential environmental justice concerns" and then take substantive steps in the permitting process for these communities, such as:

- Engaging affected communities early in the permitting process to ensure fair treatment and meaningful participation, including by making the administrative record and data easily available and using multiple methods of communication to encourage public engagement;

- Conducting an environmental justice analysis to ensure fair treatment and to investigate any potential for disproportionate impacts to communities as a result of the permitting decision; and

[97] *Id*. (Justice40/IRA data).
[98] *Id*. (Socioeconomic Indicators data).
[99] *Id*. (Health Indicators data).
[100] *See* EPA, *EJ in Air Permitting: Principles for Addressing Environmental Justice Concerns in Air Permitting* (Dec. 2022), available at https://www.epa.gov/system/files/documents/2022-12/Attachment%20-%20EJ%20in%20Air%20Permitting%20Principles%20.pdf.
[101] *Id*. at 1.

• Minimizing and mitigating disproportionately high and adverse effects associated with the permit action, including through the use of discretionary authorities, to develop permit terms and conditions to address or mitigate identified air quality impacts to the extent feasible.[102]

Neither DAQ nor the Applicant appear to have taken steps to identify environmental justice issues in proposing to issue the Draft Permit. DAQ should conduct an environmental justice analysis and ensure that the concerns raised in these comments and others are addressed, and that adverse effects associated with the facility are minimized to the extent feasible. DAQ eventually granted a public hearing but only extended the comment period by 26 days. At a minimum, DAQ should provide outreach in the local community and allow full and effective public participation in accordance with the requests it already received. Given these concerns, DAQ must reject the Draft Permit until the Applicant analyzes impacts that the proposed plant will have on the residents of neighboring communities. DAQ cannot fulfill its environmental justice obligations or its obligations to protect human health and the environment without more information and more adequate protection for the surrounding communities.

VIII. CONCLUSION

For the reasons stated in this Comment, DAQ must deny the issuance of the final permit to construct the Facility because issuing the Draft Permit would violate the Clean Air Act, the West Virginia Air Pollution Control Law, and the rules promulgated thereunder.[103] In addition, DAQ should meet environmental justice mandates and provide outreach to the local community and an extended comment period before issuing a final permit.

[102] *Id*. at 2-4.

[103] *See* W. Va. Code Ann. § 22-5-1(e) (stating a "permit application will be denied if the secretary determines that the proposed construction, modification or relocation will not be in accordance with this article or rules promulgated thereunder.").

Respectfully submitted,

James Yskamp, Senior Attorney
jyskamp@earthjustice.org
Earthjustice
25000 Euclid Ave Ste 305
PMB 531
Euclid, OH 44117

Megan M. Hunter, Senior Attorney
mhunter@earthjustice.org
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Cheryl Johncox
Regional Coordinator
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Anaïs Peterson
Lead Petrochemicals Campaigner
Earthworks

Dustin White
Senior Campaigner, Plastics & Petrochemicals
Center for International Environmental Law (CIEL)

Morgan King
WV Regional Organizer
Climate Reality Project

Sarah Martik
Executive Director
Center for Coalfield Justice

Exhibit 1

Issues Noted with the Proposed TransGas Ammonia Production Facility, Mingo County, WV (Application No. R13-3622, Plant ID: 059-00102)

Dr. Ranajit (Ron) Sahu

The following issues are noted based on a review of the redacted version of the permit application available to the public (hereafter Application) dated June 30, 2023 prepared by Potesta & Associates; the Draft Permit-to-Construct by the WVDEP; and the Engineering Evaluation/Fact Sheet prepared by the WVDEP accompanying the Draft Permit.

1. The Application contains a substantial number of pages with information redacted so no review of those pages was possible.[1] It is not clear if the redacted information was provided to the WVDEP and if so, if the DEP relied on that information in issuing the Draft Permit. There is no mention of redacted information in the DEP Engineering Evaluation/Fact Sheet.

2. The Application notes, at multiple instances, in the DEP forms that the design of the facility is not complete and many details are simply not available.[2] Thus, developing a Draft Permit with substantial process design information simply missing makes no sense.

2. The Application takes the position that ammonia is not a regulated pollutant.[3]

3. Other than estimates of fugitive emissions from components and from the ammonia storage tanks, substantially all of the emissions from the plant are emitted from three sources; the combined stack (xE), where x is the number for each of the 6 ammonia production trains; the large gas or process flare; and the smaller ammonia flare. There is also a stack for the exhaust emissions of the emergency startup engine. The following comments pertain to deficiencies in the emissions estimated in the Application:

> (i) the assumption that the SCR which will be used to control NOx from the xE stack is 99% is not supported. There is a single page, non-specific marketing claim[4] from a vendor that "99% NOx removal is achievable…" This page contains no specific project details. It is

[1] Application pdf pages 152, 168-200, 215-224. In addition, there were pages with partial redactions noted. See, for example, Application pages 112-115 pertaining to the 8S-x startup steam generator.

[2] See, as examples, Application pdf pages 91, 96, 101, 106, 111, 119, 123, 134, 140, 143, 146, etc.

[3] Engineering Evaluation/Fact Sheet at: pdf p. 9 ("…CO are the only regulated pollutant…"); pdf p. 17 (ammonia is not included in Table 5). Application pdf p. 22 (process flow diagram states no regulated pollutants from the ammonia storage tank or ammonia refrigeration; pdf p. 65 (list of all regulated pollutants excludes ammonia). Also, Application pdf pages 128 and 132 explicitly state that "[A]mmonia is not a regulated pollutant." However, the DEP forms on pdf p. 67, 69, 70, 71, and 75 do list ammonia under regulated pollutants in these forms.

[4] Application, pdf p. 137.

certainly not a guarantee of any sort. And, there is no SCR design information in the Application;

(ii) there are no estimated particulate matter (PM) of various sizes (PM_{10}, $PM_{2.5}$) emissions from the two flares.[5] While each is noted to be an "enclosed" flare,[6] with no further details provided, each is also noted to be unassisted.[7] As such, even the AP-42 Section 13 relied upon for some of the emissions (like NO_x) from the flares is a poor source, AP-42 does provide a range of PM emissions from flares. Until further design information is provided, emissions of PM_x cannot be presumptively excluded from the flares;

(iii) the manufacturer's guaranteed control efficiency for each flare is noted to be 98.5% with no supporting information.[8] In fact it is not clear for which pollutant(s), this claim is valid. For the ammonia flare, if this claim is valid then 98.5% of the ammonia would be destroyed, creating substantial additional NO_x, which is unaccounted for;

(iv) On pdf p. 74 of the Application, the form notes that there are no fugitive emissions from haul road activities (i.e., PM_x emissions); from liquid loading/unloading (i.e., ammonia at the very least); or from wastewater treatment (potentially numerous pollutants, with no details). The basis for excluding the haul roads is not clear. To the extent ammonia fugitives are excluded because it is not considered a regulated pollutant, that is incorrect;

(v) Importantly, the Application simply excludes all flaring emissions (except for a small pilot light) except during startup and shutdown. It is assumed that there will be no upset or malfunction emissions from the flares.[9] This is impossible for any chemical plant. In fact, such upset conditions typically provide much of the flaring emissions at all chemical plants;

(vi) for the large process flare, NO_x emissions are estimated using AP-42 Section 13,[10] an excerpt of which is attached in the Application.[11] However, as the excerpt makes clear the AP-42 factor was developed for flares using propylene and propane as the fuel. The waste gases to be combusted in the main process flare do not contain these compounds;

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[5] Application pdf p. 145.

[6] Application pdf pages 138 and 141.

[7] Application pdf pages 138 and 141.

[8] Application, pdf pages 138 and 141.

[9] Application, as examples, on pdf pages 89, 90, 94, 99, 104, 105, 109, and 151.

[10] Application pdf p. 151.

[11] Application pdf p. 153.

(vii) the basis for the NO_x emissions for the ammonia flare are not clear.[12] As noted in these comments elsewhere, any ammonia in the waste gases to this flare will be oxidized to NO_x. How this is taken into account in the analysis is not clear;

(viii) claimed NO_x emissions during the first hour (100 ppm) and subsequent hours (60 ppm) of startup[13] are unsupported;

(ix) amount of NO_x in the reformer flue gas (<40 ppm at 3% oxygen)[14] is unsupported;

(x) the basis for any of the non-NO_x calculations[15] from the pre-heater and superheater (all assumed to be 0.01 lb/hr with the exception of CO2 which is 2.01 lb/hr) is unsupported;

(xi) for the fugitive calculations, the basis of the component counts[16] are not supported – i.e., with any drawings;

(xii) also for the fugitive calculations, the emission factors are taken from a 1995 EPA document that is referenced in the AP-42 Section 5 cited in the Application.[17] However, none of the data that were developed in the 1995 document (or therefore in AP-42) pertain to ammonia plants.

4. The entire Attachment G, Process Description, appears to be a copy-and-paste document, containing a mix of detail that may or may not be relevant to the specific project at issue. It also contains substantial material of a marketing nature, with many unsupported claims about lower Capex and Opex costs, etc. At Application pdf p. 29 (of 244), the description notes that "…CO is reduced to carbon dioxide…" which makes no sense whatsoever.

[12] Application pdf p. 151.

[13] Application pdf p. 146.

[14] Application pdf p. 147.

[15] Application pdf p. 148.

[16] Application pdf p. 149

[17] Application pdf p. 149

February 28, 2024

Joseph Kessler
WVDEP – Division of Air Quality
601 57th St., SE
Charleston, WV 25304
Via e-mail to: Joseph.r.kessler@wv.gov

Re: Permit R13-3622, TransGas Development Systems, LLC

Dear Mr. Kessler,

West Virginia Rivers Coalition appreciates the opportunity to submit the following comments concerning proposed air permit R13-3622 for an ammonia production facility in Mingo County, WV operated by TransGas Development Systems, LLC.

We support the comments made by Earthjustice. West Virginia Department of Air Quality's assessment of this facility as exempt from Title V of the Clean Air Act is incorrect. The process heaters proposed to be used by TransGas qualify as a "steam generating unit." Burning the excess hydrogen defines it as a fuel and therefore New Source Performance Standards (NSPS) regulations for steam generating units applies. Thus, this facility must apply for a Title V permit.

DAQ is overly conservative in their calculations of the emissions potential of this facility and overly optimistic that TransGas will always operate within permitted limits. We support the recommendations offered by Earthjustice.

If the permit is granted, DAQ must require continuous monitoring for nitrogen oxide. An air monitoring station needs to be installed at the fence line and the data made easily available to the public. Low levels of nitrogen oxide can cause shortness of breath and irritate eyes, nose, throat and lungs. The Center for Disease Control states that breathing, "high levels of nitrogen oxides can cause rapid burning, spasms, and swelling of tissues in the throat and upper respiratory tract, reduced oxygenation of body tissues, a build-up of fluid in your lungs, and death." According the EPA's environmental justice screening tool, the community where these additional emissions are proposed is already experiencing rates of asthma in the 90 - 95 percentile national wide.

In summary, we implore you to require stronger emission regulations and air quality monitoring to protect the health of the neighboring community. Thank you for your careful consideration of these comments. Signed,

Autumn Crowe
Interim Executive Director
West Virginia Rivers Coalition

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

TransGas R13-3622 Comments

1 message

Amber Baker <amberbaker.life@gmail.com> Mon, Feb 26, 2024 at 4:41 PM
To: Joseph.R.Kessler@wv.gov

I have concerns about a permit being issued for this facility, particularly that there will be seemingly limited measures in place. Mingo County, like other coalfield counties, has suffered too long from irresponsible industrial practices." **This article** provides more detail that you can include in your comment.

Shalom,
Rev. Amber Baker, MDiv.
Accredited Spiritual Director
Fairview United Methodist Church
Curator of The Dinner Church Collective of Morgantown,WV
She/Her/Hers
304.677.9842

Adams Fork Energy DEP Speech

Thanks for the opportunity to comment…

My name is Mitchell Bias, and I am a lifetime resident of the southern coalfields of WV residing in Delbarton in Mingo County. I was born and raised here and have been very fortunate to live among some of the most wonderful people, and hardest working people in the world…the WV Coal Miners.

I am blessed to represent several generations of coal miners in our family, as well as our community. My Grandfathers were miners, My Father worked for 45 years for Island Creek Coal. My Father-in-law worked for over 40 years in the coal industry. I am in my 45th year as a local church Pastor with a constituency of over 700 people, many of whom are employed by or are the beneficiaries of coal.

The Coal Industry has absolutely built our nation over several generations. America has West Virginia Coal and our incredible miners to thank for our amazing infrastructure of buildings, bridges, automobiles, military armament, the list goes on and on. Moreover, Southern West Virginia—our coalfield home--is where President John F Kennedy announced this nation's War on Poverty over 60 years ago.

Through my friendship with the tremendous leadership of the MCRA, I was blessed to meet Mr. Adam Victor, President of TransGas. We have worked with Adam Victor for the nearly 15 years since our acquaintance in his quest to develop a project that provides jobs and hope for our community. Mr. Victor has not only developed a close relationship with our community to better understand our needs, but has worked tirelessly to overcome obstacles to help make this dream come true. I believe God Himself destined us to meet this man and share in the realizing of this dream.

Not only will this project create jobs and hope for our community, it has been developed in an environmentally-friendly manner. It will utilize our tremendous legacy asset of local West Virginia Mine Pool Water for pollution-free circulated geothermal cooling, so that there will be no river water consumption for this plant; or more importantly, no water discharge into our local Tug Fork River from this plant.

It will be utilizing the world's premier ammonia production technology, from Denmark's HALDOR TOPSOE, provider of technology to over 200 ammonia plants worldwide, so that over 99% of the greenhouse gas produced from this TransGas plant, Carbon Dioxide, can be captured.

More importantly, they will hire locally and will offer internships for our youths to learn new skills so they can be productive members of the nation's 21st Century workforce.

When I heard the announcement made last year by Governor Justice of the Adams Fork Energy facility; I was elated. If anyone in the nation deserves and needs this facility it is the hard-working people of the West Virginia Coalfields. We desire this chance to do what we've proven we do best: serve the energy needs of our nation and the world. Our superior workforce will produce an optimum product and rise to this opportunity with excellence.

I am joined here in our sanctuary by a host of supporters from throughout our region. They would be reflective of a much larger contingency of residents who are excited for this amazing development for our communities and the coal industry.

Here with me are coal miners, schoolteachers, attorneys, business owners, and residents of multiple communities who support the granting of the DEP Permit for the Adams Fork Energy facility.

More than anything for us, this is an answer to many years of prayer. As an Anchor Project in the Appalachian Regional Clean Hydrogen Hub, the Adams Fork Energy facility will be the transformational breakthrough we need. This community strongly supports Mr. Victor in his effort to build this project and we urge quick approval of the TransGas Development Systems permit.

Thank you.

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

TransGas R13-3622 Comments

1 message

MELISSA CORBETT <uwflissann@yahoo.com> Sun, Feb 25, 2024 at 5:55 PM
To: Joseph.R.Kessler@wv.gov

"I have concerns about a permit being issued for this facility particularly that there will be seemingly limited measures in place. Mingo County, like other coalfield counties, have suffered too long from irresponsible industrial practices." I urge you to reconsider constructing this facility as it poses danger to the residents within the county.

Peace and Blessings,
Melissa Wms. Corbett
Communications Coordinator
WV Conference-United Women in Faith

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

TransGas R13-3622 Comments

1 message

gcurry@developmingo.com <gcurry@developmingo.com> Wed, Feb 28, 2024 at 2:48 PM
To: joseph.r.kessler@wv.gov

Good afternoon,

I would like to express my support for the TransGas Development's proposed Adams Fork Project Air Quality Permit application project and emphasize its potential for economic growth and commitment to environmental responsibility.

The proposed project will create valuable jobs and diversify our local economy which has been decimated by the decline of the coal industry. The investment will also stimulate economic activity, providing long-term benefits to our community through job creation and economic resilience.

The project's adherence to strict air quality standards, employing the latest emission control technologies, ensures operations will be conducted responsibly, safeguarding our community's health and air quality. The Adam's Fork Project has the potential to honor southern West Virginia's legacy of being a leading energy producer, provide economic benefits, and introduce an innovative technology that could utilize the technical skill sets of a coal mining workforce.

The project offers a balanced approach to economic development and environmental protection. I support its development and urge the WV Department of Environmental Protection Division of Air Quality to favorably consider the permit application.

Thank you,

Greta Curry

Deputy Executive Director

Mingo Co. Redevelopment Authority

phone: (304)235-0042

mobile: (304)784-1983

site: www.developmingo.com

email: gcurry@developmingo.com

address: 1657 East 4th Avenue Williamson, WV 25661

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

"TransGas R13-3622 Comments"

1 message

Jill Antares Hunkler <jahhunkler@gmail.com> Wed, Feb 28, 2024 at 12:03 PM
To: Joseph.R.Kessler@wv.gov

Joseph Kessler
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

RE: **Comments on Draft Air Permit for TransGas Development Systems, LLC's Mingo County Ammonia Plant, Application No. R13-3622**

Please accept and consider the following comments on the West Virginia Department of Environmental Protection, Division of Air Quality's draft permit to construct, issued to TransGas Development Systems, LLC for an ammonia manufacturing facility in Mingo County, West Virginia.

The Application and Draft Permit raise issues and deficiencies that must be addressed before a final permit is issued. Specifically, the Draft Permit improperly applies an exemption from Title V permitting; underestimates the Facility's potential to emit; and fails to protect human health and the environment in violation of West Virginia's Air Pollution Control Law.

These flaws, result in the facility avoiding important major source permit evaluations and protections, including requirements to regulate its CO_2 emissions, install more protective technology, and demonstrate that the facility's emissions increases would not cause or contribute to a violation of health-based air quality standards. These harms are particularly concerning given the high level of environmental justice indicators in the community surrounding the Facility.

West Virginia communities deserve better than what another polluting facility brings. More consideration and protections are needed from the Department of Environmental Protection to ensure the health and safety of the people is priority not corporate interests and profits.

For the reasons stated in this Comment, you must deny the issuance of the final permit to construct the facility because issuing the Draft Permit would violate the Clean Air Act, the West Virginia Air Pollution Control Law, and the rules and regulations.. You should meet environmental justice mandates and provide outreach to the local community and an extended comment period before issuing a final permit.

Respectfully,

Jill Hunkler, Director

Ohio Valley Allies

P.O. Box 455

Barnesville, OH 43713

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

TransGas R13-3622 Comments

1 message

Elizabeth Nawrocki <elizabethcnawrocki@gmail.com> Wed, Feb 28, 2024 at 3:46 PM
To: joseph.r.kessler@wv.gov

Hello Mr. Kessler,

My name is elizabeth nawrocki. I live and work in Mingo County, in Kermit and the surrounding area.

I am submitting this comment to state my opposition to the Air Permit for TransGas Development Systems' Mingo County Ammonia Plant, Application No. R13-3622.

As acknowledged by the DEP, a full air quality impact analysis was not completed for the potential project because this would be considered a "minor" pollutant source. Some disagree with this designation and suggest that the numbers provided under represent the actual harm to our air and our community that this facility poses. Even if this isn't the case, even if this is indeed a "minor" source, it's clear that such arbitrary numerical designations don't protect our community. Even a minor source poses a threat to the lives of those in the area– communities already left vulnerable from decades of extraction, exploitation, and quite frankly government and economic neglect.

One specific concern is how this facility will affect the asthma rates of the surrounding community. West Virginia children are already more likely than many of their peers around the country to suffer from asthma, and children in West Virginia are more likely than adults to suffer from the disease. The increased fracking activity that would likely result from the production of this facility, the emissions from the production of the ammonia, and stored ammonia itself all pose significant risks to the lungs of our students, again a population with an already increased risk of asthma and other respiratory diseases from decades of other energy projects in the area.

Just a few months ago a student from the community just miles from the site of this proposed facility died of an asthma attack. A family had to bury their child weeks before christmas.

We wonder how many more tragedies will we have to face as a community if the Adams Fork ammonia facility is built?

We invite folks to come visit and retreat to the hills of southern west virginia, to absorb the beauty of the landscape and to breathe deeply from the mountain air. It's our responsibility to ensure that these breaths aren't poisoning our bodies, our children. This region has long been a sacrifice zone for the supposed progress of the political and economic ambitions for the rest of the country. For this and many other reasons I believe the project should be halted before it causes more damage to the economy, the earth, and the people of Mingo County.

Thank you.
elizabeth nawrocki

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

FW: Public Comments of the Adams Fork Energy clean ammonia project

1 message

Albert Totten <chosenbygod7@msn.com> Sun, Feb 25, 2024 at 9:29 PM
To: "joseph.r.kessler@wv.gov" <joseph.r.kessler@wv.gov>

Pease receive these public comments from me in regards to the Adams Fork Energy clean ammonia project. I had submitted them to the email address I obtain from the WVDEP Web Page to francis.sacr@tgds.com. However, Mr. Adam Victor called me today and informed me that the comments should have been sent to joseph.r.kessler@wv.gov instead. Thank you for your consideration in this most important economic matter for our region of Southern West Virginia.

Albert C. Totten

Phone: 304-475-3602

P.O. Box 221

Delbarton, WV 25670

Sent from Mail for Windows

From: Albert Totten <chosenbygod7@msn.com>
Sent: Saturday, February 24, 2024 10:12:46 PM
To: francis.sacr@tgds.com <francis.sacr@tgds.com>
Cc: Albert Totten <chosenbygod7@msn.com>
Subject: Public Comments of the Adams Fork Energy clean ammonia project

Please accept the following comments on the Adams Fork Energy clean ammonia project.

My name is Albert C. Totten and I reside at 380 Rockhouse Fork, Delbarton, WV. I am a life long resident of Mingo County West Virginia , where I have lived for over 76 years. My family and I do support the construction of the Adams Fork Energy clean Ammonia project.

My wife Betty and I have truly been blessed by God with 5 children, 17 grand kids and 1 Great Granddaughter. Two of our children had to leave the Mingo County in order to obtain adequate employment to support their families.

As a Council member of the Town of Delbarton, WV for over 10 years, I see the need for economic development in order for small towns and cities in Southern West Virginia and Eastern Kentucky to continue operating and provide for their residents.

As the former Office Manager for the State of West Virginia Job Service Office in Williamson, WV for over 33 years, I witnessed the decline of the coal mining industry and the loss of good paying mining and mining related jobs. I spoke with countless young men and women who were laid off from jobs, as they applied for and received Unemployment

Compensation checks thru our Williamson Office. However, once those Unemployment Benefits ran out, these laid off workers had to relocate to other regions of the State of West Virginia or the nation, to provide for the financial and physical needs of their young families.

Also, as a member and Elder of the Regional Church of God here in Delbarton for over 40 years, it has been very troubling to me to see our young families having to leave our area in order to meet the physical and financial needs of their families.

While the Hatfield and McCoy Trail System has provided some economic development to our region, we still need the good paying jobs that should be available during the construction and then operation of this Adams Fork Project.

I believe that our God has provided our natural resources of Coal and Natural Gas for our Region to continue supporting our families and the whole world. Yes this project will help the whole world by providing the much needed ingredients for fertilizer to grow the crops and provide the much needed food for years to come.

While the Adams Fork Project will not solve all of the need for the economic diversification of our economy away from coal, it will be one more step in the progress of Mingo County, West Virginia to support our existing families and draw many of our loved ones back home. That is why my family and I support the Adams Fork Energy clean ammonia project.

Thank you for allowing me to provide input into the public hearing on this most important project for Mingo County and all of the State of West Virginia.

Note: I can be contacted by phone at 304-475-3602 of by mail at P.O. Box 221, Delbarton, WV 25670. My email address in ChosenbyGod7@msn.com.

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

TransGas R13-3622 Comments

1 message

Caitlin Ware <caitlineware@gmail.com> Tue, Feb 27, 2024 at 10:52 AM
To: Joseph.R.Kessler@wv.gov

I am opposed to the permitting of the Adams Fork Energy "Clean" Ammonia Project.

I am concerned about a permit being issued for this facility, particularly that there will be seemingly limited measures in place to detect harmful emissions that could lead to serious health risks, seemingly no emergency response plan, and for the potential of water contamination due to increased fracking activity and underground storage in an area that has been hollowed out by previous mining activity. Mingo County, like other coalfield counties, has suffered too long from irresponsible industrial practices.

Caitlin Ware