west virginia department of environmental protection

Division of Water and Waste Management
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Austin Caperton, Cabinet Secretary
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November 5, 2020

Re: WV Permit No. WV0111457
Roxul USA, Inc.
Registration Application No. WVG611896
Responsiveness Summary

Dear Citizen,

The State of West Virginia, Department of Environmental Protection (DEP), Division of Water and Waste Management (DWWM) would like to take this opportunity to thank those who submitted written and verbal comments on the application from Roxul USA, Inc. This Response to Public Comments highlights the issues and concerns that were identified through the comments received during the public notice period.

The proposed NPDES Multi-Sector Stormwater General Permit registration (MSGP) number WVG611896 will cover industrial activities associated with the operation of an industrial facility, the RAN 5 site. This permit application was submitted on 7/22/2019.

The public notice and public hearing were arranged for the Multi-Sector Stormwater General Permit (New MSGP #1 WVG611896) and combined with the reissued NPDES/State Storm Water Construction Permit (WVR108876 Reissue #2).

A Class I legal advertisement was published in The Spirit of Jefferson Advocate on September 18, 2019. This public notice allowed the DWWM to receive public comments on the proposed project and subsequently schedule the public hearing. The public notice/public comment period closed on October 31, 2019.

A public hearing was held from 6 to 8 p.m. on Wednesday, October 23, 2019 at Shepherd University Student Center, 210 N King St., Shepherdstown, WV 25443. At the hearing, 205 citizens signed in as attending the hearing. During the public hearing, oral comments were received from 47 individuals. Many speakers summarized their comments orally and submitted written comments for the record.

Over the comment period 575 emails were submitted. One email included a spreadsheet containing over 445 individual names. Several comments received were general in nature, consisting of two sets of form letters with some slight individualization; however, many topics are covered in detail. The DWWM received

comments from 97 individuals that were of a detailed or technical nature commenting directly on one of the draft permits. DWWM has reviewed and considered all comments received. DWWM has grouped and summarized these comments. This document will respond to these comments immediately upon the issuance of WVG611896.

Every attempt has been made to ensure that all questions/concerns related to the application were addressed. The attached Responsiveness Summary highlights the issues and concerns that were identified through written and oral comments received during the comment period.

The Responsiveness Summary is organized in such a way that comments frequently mentioned, or general in nature, or outside the scope of DWWM's authority, are responded to in Section A (General Comment Responses). More specific comments on the Multi-Sector Stormwater General Permit Registration, and our response, are found in Section B (Specific Comments and Responses). Oral comments received at the Public Hearing are summarized in Section C (Oral Comments and Responses). In many instances, multiple/ similar comments were provided on specific sections or issues. Those comments and responses were summarized to the greatest extent possible.

Notice is hereby given of your right to appeal the terms and conditions of this permit registration of which you are aggrieved to the Environmental Quality Board (EQB) by filing a NOTICE of APPEAL on the form prescribed by such Board, in accordance with the provisions of Section 21, Article 11, Chapter 22 of the Code of West Virginia within thirty (30) days after issuance of this permit registration.

Thank you for your interest and comments on the Roxul USA, Inc. application. If you have any further questions or concerns, please do not hesitate to contact Rick Adams of my staff at 304-926-0499 ext. 43763 or by email at rick.d.adams@wv.gov.

Sincerely,

Katheryn Emery, P.E.
Acting Director

Section A: Frequent, General Permit Comments and Responses

In many cases multiple comments were provided on specific sections or issues, and those responses have been categorized to the greatest extent possible below:

1. **General Response:** *Nearly all comments received were in opposition to the draft WVR108876 Reissue #2 and/or to the draft Industrial Permit #1 WVG611896.*

   There are several comments that concern WVR108876 Reissue #2 and are not relevant to the issuance of Multi-Sector Stormwater General Permit (New MSGP #1 WVG611896).

2. **Not Applicable Response:** *Comments were received that were not specific to Stormwater or Groundwater Associated with Construction Activities. The agency has no response to the comments that are not items subject to the jurisdictional authority of the WVDEP.*

   While all comments are reviewed, it is beyond the purview of the Division of Water and Waste Management to evaluate comments that are not specifically related to the NPDES Multi-Sector Stormwater General Permit (MSGP) Registration number WVG611896.

3. **Groundwater Protection Plan (GPP) Response:** C*omments were received concerning the potential for groundwater contamination associated with this project. Concerns are that all Groundwater Protection Regulations were not followed and the GPP does not go far enough to protect groundwater resources.*

   WVDEP requested additional technical corrections on 10/07/2020 to enhance and clarify the Rockwool facility GPP and to implement additional measures to mitigate risks and protection of groundwater resources.

   An Integrated Environmental Plan (IEP) was initially developed as an integrated plan including both requirements of the West Virginia Title 47, Series 10 (Storm Water Pollution Prevention Plan) and requirements of West Virginia Title 47, Series 58 (Groundwater Protection Plan, "GPP"). As per Section B.19 of the West Virginia Multi-Sector General Permit (effective 12 October 2019), the SWPPP and GPP are required to be separate "stand-alone" documents.

   The GPP dated October 13, 2020 was prepared for and certified by the RAN-5 Facility Site Engineer in accordance with good engineering practices and regulatory requirements. This GPP is designed to facilitate the proper management of chemicals and materials at the RAN-5 manufacturing facility (RAN-5 Facility) and promote appropriate responses in the event of an accidental release. The management at RAN-5 Facility approves this GPP as described in this document and is committed to providing the resources, equipment, facilities, and materials required to establish preventative measures to expeditiously control and contain accidental releases,

and to remove and dispose of released material in a manner consistent with the appropriate environmental regulations.

4. **Karst Response:** C*omments were received relating to karst concerns in this area. Concerns about the lack of karst knowledge in the area were expressed and questions raised on how the project's construction could affect water quality, sinkhole collapse, unknown karst features, damage to water supplies, effect on caves and cave dwelling organisms, etc.*

   WVDEP is very aware of the concerns raised and the desire for enhanced karst protections. WVDEP staff have had boots-on-the-ground in the project area, met with Roxul representatives, assembled drainage information, and sought to further our karst knowledge. Roxul has provided detailed information regarding karst features within the proposed project area, karst hydrology and resource protection.

   The Supplemental Sinkhole Repair Document dated October 16, 2018 is attached. The GPP Section 3.2 (formerly Section 3.2 of the IEP) has been updated to reference Table 1, which provides a summary of the mitigation status of WVDEP-reported sinkholes on-site. This table is also uploaded as a standalone table onto ESS for ease of identification. An updated mapping of sinkholes labeled "RAN5 Sinkhole Map-10-12-20" has also been uploaded to ESS. This drawing reflects the most currently known sinkholes reported to the WVDEP. As of the date of this response, 20 of the 21 sinkholes identified at the site have been repaired in accordance with the procedure previously approved by WVDEP. Identified surface sinkholes that could potentially receive surface runoff on-site or dropouts occurring from exposed voids will be repaired in consultation with the WVDEP. Sinkhole 21 was discovered October 12, 2020, preliminarily assessed by on-site personnel, and reported to WVDEP the same day.

5. **Drainage Structure Response:** C*omments were received concerning the ponds, basins and bioretention structure such as inappropriate description of ponds and site runoff design and unresponsiveness to technical requirement of outlet design and unacceptable water reuse ponds and retention ponds.*

   Section 3.3 of the Storm Water Pollution Prevention Plan (SWPPP) provides a description of each structure providing drainage control for this facility. The site has been regraded so that storm water from covered areas and building roofs for the manufacturing and other areas flows to storm drains located throughout the facility and into one of two ponds or Bioretention Area. The total facility drainage within the current LOD is about 99 acres, of which about 31.6 acres are impervious, which includes buildings, roadways, the parking lot and trailer storage area, and unloading/loading areas. The remainder is predominately vegetated, open space. Facility drainage occurs through two main basins and a Bioretention Area:

   The Storm Water Management Pond (SWM) handles only non-contact stormwater. Non-contact stormwater means there is no potential for contact with manufacturing materials or process water

within this drainage area. Storm water discharges within this area are conveyed through roof drains, surface drains and underground stormwater lines before flowing to Outlet 001. The SWM Pond has been designed with the goal of retaining and attenuating peak discharge. To prevent infiltration into the groundwater, the pond has a three-component geosynthetic liner system. The component line rests on borrow soil of a typical 4" thickness. Overlying borrow soil is a stabilizing geotextile fabric, overlain by a geosynthetic clay liner, overlain by a 60 mil HDPE geomembrane layer.

The outlet of the SWM Pond has been designed with a rise structure to control varying storm frequencies. In the event of an accidental release, a gate valve is installed in the outlet pipe as a safety feature and can shut off water flow to prevent release material from leaving the site. The material may be skimmed off the water and/or the material is pumped into containers for appropriate recovery or disposal.

A sprinkler system is in the warehouse. In the event of use, sprinkler water will exit the building and drain to the SWM Pond. As noted, the water quality of water in the pond upon this release to the SWM Pond will be checked prior to discharge. A gate valve is used to prevent discharge from the SWM Pond.

The drainage area for the SWM basin is 40.5 acres, 17.0 acres impervious and 23.5 acres of grassed area. The drainage area will incorporate eight Level 2 water quality swales and a Level 1 Bioretention Area in the parking lot which will provide additional storage and stormwater infiltration capacity. In addition, five Flexstorm Pure Filters will provide additional storage and filtering capacity on-site. The outfall water from the SWM Pond (Outfall 1) ultimately discharges onto an outlet apron. Discharge from the outlet apron is designed to discharge as sheet flow and a non-erosive velocity.

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. **Rainwater Re-use Pond** includes stormwater within the manufacturing area of the facility and wash area for cleaning of equipment and vehicles. There is a Settling Forebay prior to entering the Rainwater Re-Use Pond. A concrete weir separates the Settling Forebay from the Rainwater Re-Use Pond. Once the water reaches a certain elevation in the Settling Forebay, it flows into the Rainwater Re-Use Pond.

The water that is collected in the Rainwater Re-use Pond will be then treated via sand filter and then UV treatment and then sent into the process system. Process operation of Rainwater Re-use Pond is more fully described in Response 24. To prevent infiltration into the groundwater, the Rainwater Re-Use Pond is lined using the same three-component pond geosynthetic liner system as in the SWM Pond.

The drainage area for the Rainwater Re-use basin is 14.7 acres, 3.5 acres impervious and 3.7 acres of grassed area. The drainage area will incorporate two Oil/Water Separators used to treat water from the wash area. One Oil/Water Separator treats water from the vehicles and equipment wash area and one Run-off from unloading/loading and fueling areas.

The Bioretention Structure handles stormwater from grass and impervious areas along the western area of the site. The Level 1 Bioretention Area has been designed to fully treat the first inch of rainfall, which meets the Chesapeake Bay standards. Infiltration is not promoted and is lined with a polyethylene liner. An underdrain carries water from the Bioretention Area and discharges to a concrete level spreader to maintain sheet flow and non-erosive velocities at the NPDES Outlet 002. The drainage area is 14.9 acres, 1.12 acres impervious and 13.78 acres of grassed area.

6. **Receiving Stream Response:** C*omments were received concerning the fact that an incorrect receiving stream, Elk Run, was listed on the NPDES Industrial Permit #1 submitted 07/22/2019.*

   Section 10 has been revised and receiving stream designation has been updated to Rocky Marsh Run for both Outlet 001 and 002. Further the major basin reported for both Outlets has been updated to Potomac River Drains.

7. **Mistakes and Discrepancies Response:** *Numerous comments were received relating to permittee errors, mistakes, and discrepancies and/or intentional misrepresentation and negligence.*

   The Stormwater Permit Team examined WVG611896 NPDES MSGP#1 and considered all information. Some errors or deficiencies were noted during this review and technical corrections were requested and reviewed to ensure that this application complies with the terms and conditions of General Permit WV0111457.

8. **Stormwater Permits Response:** *Comments were received concerning the different stormwater construction permits and/or registrations.*

   Storm Water Construction General Permit WV0115924 covers Registration WVR108876 for construction related storm water discharges. The Multi-Sector Stormwater General Permit WV0111457 covers Registration WVG611896 for plant operations.

9. **Pond Liner System Response:** *Comments were received concerning the liners proposed with the ponds. It is well known and studied that liners fail when voids like sinkholes open under them. In fact, there is a whole field of study into detecting sinkhole development, void development, and earth movement under such liners. In an effort to prevent disaster, Rockwool should be required to install the latest technology in and beneath the liners[6]. In fact, it seems a multimodal approach would be most appropriate here to detect sinkhole development and liner stress given the rinks associated with failure.*

   A pond liner is proposed for the Rainwater Reuse Pond, the Permanent Sediment Basin 1 (SWM, and the Northwestern Bioretention Basin. To prevent infiltration into the groundwater, the pond liner system consists of a three-component geosynthetic liner system. The component line rests on borrow soil of a typical 4” thickness. Overlying borrow soil is a stabilizing geotextile fabric, overlain by a geosynthetic clay liner, overlain by a 60 mil HDPE geomembrane layer of The Pond Liner System

details are outlined in the IEP. The liner proposed meets the requirements outlined in Table 6 of the Chesapeake Stormwater Network (CSN) Technical Bulletin No. 1 "Stormwater Design Guidelines for Karst Terrain in the Chesapeake Bay Watershed Version 2.0" released June 2009.

10. **Limits of Disturbance (LOD) Area Response:** *Several commenters questioned the area associated with this project. Roxul listed the permit as a 98.9-acre project. The WVEDA has this 150-million-dollar bond with 130 acres. It appears the DEP has failed to follow their own requirements and studies when a project is over 100 acres.*

    The LOD boundary proposed by the original registration issued on 10/19/2017 was to disturb 98.9 acres. Under this reissuance 6.4 acres, of which has not been previously disturbed, will be removed and an additional 6.0 acres will be added along the northern portion of the site changing the total proposed disturbed area to 98.5 acres. The property tract boundary is 130 acres. Only that portion of the tract proposed for disturbance should be included in the LOD.

11. **Permit Strength and Effectiveness Response:** *Comments were received questioning weak laws and the strength and effectiveness of the Multi-sector General Water Pollution Control Permit.*

    WVG611896 listed an appropriate Standard Industrial Classification (SIC) Code 3296 Mineral Wool. The RAN-5 Facility is a manufacturing facility that manufactures a mineral wool insulation for building insulation, customized solutions for industrial applications, acoustic ceilings and other applications. The application complies with all terms and conditions of the 2019 Multi-Sector GP issued 9-12-2019.

12. **Approved General Permit Response:** *Several commenters asked how can DEP approve projects when none of the General Permits have been approved?*

    The 2019 Storm Water General Permit (GP) for Construction Activity was Issued on January 10, 2019 and became Effective on February 9, 2019. The reissuance was revised to comply with all terms and conditions of the 2019 Construction Stormwater GP issued 1-10-2019. Authorization to discharge stormwater was under the 2012 GP prior to this issue date.

    The Multi-Sector Stormwater General Permit (GP) was Issued on September 12, 2019 and became Effective on October 12, 2019. The New NPDES Industrial Permit #1 WVG611896 Application was submitted 07/22/2019 and has been reviewed to comply with the 2019 Multi-Sector Stormwater GP.

13. **Construction Timeline Response:** *Comments were received in reference to incorrect construction timelines that were given that fell short months to the actual time needed. Roxul has repeatedly failed to check the box on its applications for "Grading period to exceed 1 year" and sign the associated statement for billing for public notice.*

This was addressed in a technical correction to reissue no. 2 requested on 07/19/2019. The application was resubmitted on 07/29/2019 with the box checked on its application "Grading period to exceed 1 year" along with a statement of billing attached.

14. **Outlet Design Response:** *Comments were received claiming Roxul is unresponsive to technical requirements of outlet design. Sediment & Erosion Control Plan is inadequate to meet the requirements of the General Permit.*

    BMP summary tables have been added to section 2.2 of the SWPPP. Tables include information about drainage data, capacity data, riser data, channel data, and outlet description. Outlets have been designed to dissipate velocity through conversion to sheet flow at the discharge points through use of rock outlet aprons or level spreading devices. Post development peak flow rates at the final outlet points for the 1-year storm event have also been designed to be less than pre-development conditions, values of which are shown on the drainage area maps in the SWPPP. Under section 6.0 Inspection and Maintenance Procedures, line number 14 was added to give inspection requirements for the BMPs.

    The outlet of the SWM Pond has been designed with a rise structure to control varying storm frequencies. A gate valve is installed in the outlet pipe as a safety feature and can shut off water flow to prevent release material from leaving the site. The outfall discharges water onto an outlet apron during discharge to maintain non-erosive discharge velocities.

15. **Evidentiary Hearing Response:** *Several commenters requested an Evidentiary Hearing for both WVR108876 reissue #2 and WVG611896.*

    Each commenter has a right to appeal the terms and conditions of this permit registration of which you are aggrieved to the Environmental Quality Board by filing a NOTICE of APPEAL on the form prescribed by such Board, in accordance with the provisions of Section 21, Article 11. Chapter 22 of the Code of West Virginia within thirty (30) days after issuance of this permit registration.

16. **Substantial Harm Determination Response:** *Several comments were received believing the facility should be classified with a Substantial Harm Determination because the facility is located at a distance such that discharge from the facility would shut down a public water supply.*

    A Substantial Harm Determination is a requirement of the oil pollution control act and is a component of the spill pollution control and countermeasures plan. A facility may pose "substantial harm" according to the FRP rule if it:

    1. has a total oil storage capacity greater than or equal to 42,000 gallons and it transfers oil over water to/from vessels; **or**
    2. has a total oil storage capacity greater than or equal to 1 million gallons and meets one of the following conditions:

The RAN-5 Facility does not meet the criteria (either under 1 or 2), therefore is not subject to the FRP rule via self-identification.

17. **Baseline Parameters Response:** *Comments were received believing that the required eight baseline parameters have not been submitted.*

    The eight baseline parameters are to be submitted after operations at a facility begin. The public has access to all information regarding sampling using the DEP's public access portal.

    All sampling is based upon operations conducted and materials stored at the permitted site. This sampling has been imposed based upon the 2019 MSGP WV0111457.

18. **Aboveground Storage Tank and Material Data Sheets (MSDS) Response:** C*ommenters questioned the contents of storage tanks and that they were not disclosed. The company states the tank contents are confidential. In addition, MSDS of materials used at the site are also listed as confidential.*

    Table 1 of the SPRP and SWPPP have been updated to describe the makeup of the material listed as Resin A, Resin B, and Additive. A description has been included in Section 22 of the application to more fully describe processes and binder materials. These SDS are still claimed business confidential in accordance with W. Va. Code §22-30-14 and will not be provided via upload to the ESS. The SDS will be hand delivered to the WVDEP as "business confidential and proprietary information" for review or a secure procedure mutually acceptable to both ROCKWOOL and WVDEP. This procedure is consistent with how SDSs have been provided to other divisions of WVDEP.

19. **Inappropriate Location Response:** *Commenters questioned the location of the proposed facility and that this is an inappropriate location for such an installation. Given its location, on very porous rock and above underground streams, and given the kind of chemicals likely to be stored on the facility (not disclosed to the public) neither the construction nor the operation of this facility will be safe for residents.*

    DEP has no authority to determine locations of industry. Also see comment number 2.

20. **Groundwater Monitoring Response:** *Several commenters think Rockwool to perform routine groundwater monitoring. With regard specifically to outside material storage and disposal areas, and impoundments, for industrial facilities, West Virginia Legislative Code §47-58, Groundwater Protection Regulations, Section 4, states that "Placement of groundwater monitoring stations may be necessary to determine if contamination has occurred or is occurring," and "Groundwater monitoring stations may be necessary to assure protection of the groundwater resource."*

    A Monitoring Well Network Development Plan has been submitted to DEP for review. The agency has requested the following information: - Develop a ground water flow direction map with

appropriate contour spacing using existing information along with the data from the new proposed monitoring wells. – The ground water monitoring parameters and frequency will be provided by the agency. - Include sampling of the reuse pond in Well Monitoring Plan.

Ongoing work is currently being undertaken to update the monitoring well network development plan and install the four (4) proposed monitoring wells. Once the monitoring wells are established, a map showing actual well locations and ground water flow pattern contours will be submitted via an E-report.

Resource Conservation and Recovery Act (RCRA) Response: *Several commenters are concerned that "waste pit" or "melt for reuse" storage areas will also contain waste and it is also unlined. This will come into contact with liquid as it is uncovered and is the destination for dewatered sludge form other ponds. These areas have not been evaluated and they must be addressed along with the storage of waste products, by-products, and materials destined to be recycled. It is possible the RCRA should apply here. The permit should not be approved until this issue is specifically addressed, including an analysis of whether RCRA applies to these activities; and, if so, whether proper regulatory action has been taken.*

In a Technical Correction requested 10/07/2020, Roxul was asked to provide an analysis of whether the Resource Conservation and Recovery Act (RCRA) applies to the activities proposed under the RAN 5 Facility and to provide a thorough and detailed summary of all activities carried out under other regulatory programs which have relevance to groundwater protection.

The representative of Roxul provided the following response on October 13, 2020:

A thorough regulatory review of onsite processes and chemicals has been performed by ROCKWOOL Environmental Health and Safety personnel. This review consisted of a comparison of the chemicals planned for storage on site with the USEPAs List. The RAN5 facility operation has also been reviewed in regard to waste streams generated at a similar operating

Upon review of the SDSs for the chemicals to be stored onsite at RAN5 against the USEPAs List of Lists, it has been determined that the following regulations apply:

- CERCLA RQ
- Tier II

- TRI Form R
- Section 302 EHS
- RCRA

The chemicals stored in Aboveground Storage tanks on the RAN5 site will be managed in accordance with applicable regulations. Tanks will also be registered and undergo periodic inspection in accordance with the West Virginia Aboveground Storage Tank Rule.

Expected non-hazardous waste streams are:

- General plant rubbish and municipal solid waste
- Waste wool from project start-up
- Scrap metal and wood
- Used Oil
- Universal Waste

Hazardous waste generation subject to RCRA regulation has been identified as used brick generated during periodic melting pot relining activities. ROCKWOOL is planning for and will comply with requirements of the RCRA large quantity generator of hazardous waste regulations. Large quantity generator status is anticipated based upon the normal volume and density of the brick replaced. The melting pot relining activities take place in a covered, enclosed area. Used brick is a solid waste stream and will be appropriately removed and stored in covered containers and will be temporarily stored on site for a period not to exceed 90 days in compliance with RCRA requirements. Used brick is contained in a covered area and disposed of in covered containers. Used brick is handled in such a way that it is not exposed to stormwater during replacement and stormwater contact is prevented during storage.

ROCKWOOL will prepare and maintain on site required RCRA plans in advance of operations as required by RCRA regulations. In the unlikely event that there is a spill or release of a potentially hazardous chemical or solid waste, the Emergency Action Plan will be activated to minimize or prevent the flow of a hazardous chemical to the stormwater system and groundwater.

21. **Well Head Protection Area Response:** *Several commenters are concerned that the project is located within the regulated borders of protection with the close proximity of the site (1500') to an elementary school wellhead protection and a residential neighborhood is problematic and , should tainted runoff enter the karst terrain and taint the underground water and/or the nearby citizens.*

Per Multi-Sector General Permit SWPPP Requirements, a topographic map that extends at least a mile beyond Rockwool's property should be provided that shows the following: all intakes and discharge structures, sinkholes, drinking water wells, springs, and surface water bodies. Some known features within one mile that are not shown. Include the source water protection area for Shepherdstown and groundwater flow patterns.

Table 2 – Available Water Quality Protection located in the GPP identifies North Jefferson Elementary (WV3301912) as the closest well head protection area. The Source Water Protection Area Map shows the facility north the elementary and the estimated groundwater flowing north and away from the elementary

The Source Water Protection Area Data Topographical map has been updated and uploaded to ESS. The map has been extended to show one mile beyond the property boundaries of the facility. All surface water bodies within the one mile radius of the property boundary have been shown and were provided by the "West Virginia GIS Technical Center" as the "2018 National Hydrography Dataset (NHD)" of West Virginia's waterbodies. In addition, a small number of unnamed tributaries have also been added to the map from the 2003 State Addressing Mapping Board (SAMB) dataset, although not shown in the 2018 data. Drinking water wells listed in the identified public records and the voluntary remediation program application have been included.

22. **Inappropriate Signatory Response:** *Several commenters say that the IEP was signed by a person who does not qualify as a signatory. In section 4.6, it states "4.6.a.1.A. A president, secretary, treasurer, or vice-president of the corporation in charge of a principle business function or any other person who performs similar policy or decision-making functions for the corporation; or 4.6.a.1.B.*

Per the new General Permit requirements for the Multi-Sector, the Integrated Environmental Plan (IEP) has been split into standalone SWPPP and GPP. The revised SWPPP has an updated Section 5.3.1 (previously, section 5.3.1 of the IEP) to include additional details as requested by the WVDEP. Both documents have been signed by Peter Regenberg, RAN-5 Facility Site Director and VP US Operations.

23. **Operational Controls for Rainwater Re-use Pond Response:** *Several commenters are concerned about the operation controls of the reuse pond in an event of a large storm event.*

1. As a technical correction, WVDEP requested the IEP 5.3.1 Operational Controls for Rainwater Re-use Pond be revised to clarify operations and provide additional details concerning the emergency action plan.

Per the new General Permit requirements for the Multi-Sector, the Integrated Environmental Plan (IEP) has been split into standalone SWPPP and GPP. The revised SWPPP has an updated Section 5.3.1 (previously, section 5.3.1 of the IEP) to include additional details as requested by the WVDEP. A summary of this update is provided below.

The normal operating level of the Rainwater Reuse Pond will be approximately 2.5 feet. Normal fluctuations in pond level are expected to be +/- 2.5 feet. Reuse of collected rainwater is preferable to purchase of potable water so it will typically be used as it is collected.

2. The Rainwater Reuse Pond has been designed to accommodate a variety of large storm events assuming the normal operating level of 2.5 feet as a beginning elevation and the rain event occurring

during a plant shut down with no water withdrawal. Modeling was performed to verify a reasonable freeboard ranging from 1 to 2 feet following extreme storm events. The storm events modeled include:

a. NOAA 100-year 24-hour storm event of 6.6 inches.

b. Review of historical local data from Martinsburg Airport for past 20 years and selecting the largest 15-day cumulative rainfall of 8.3 inches.

c. Review of historical local data from Martinsburg Airport for past 20 years and selecting the largest 7-day cumulative rainfall of 6.6 inches.

d. NOAA 100-year 7-day rainfall of 9.0 inches.

3. ROCKWOOL will initiate contact with emergency storage tank services within approximately 100 miles of the Rockwool facility in the event that freeboard is less than 1 foot. The names and contact numbers of three vendors have been added to the Plan. ROCKWOOL will use temporary holding tanks to contain the excess volume of water. If a volume of water is collected that cannot be feasibly used by the facility, water would be sampled and then trucked to a local POTW or privately owned industrial treatment plant based on sampling results.

4. In the highly unlikely occurrence of an overflow condition, storm water from the Rainwater Reuse Pond will be captured by Outlet 001. ROCKWOOL will initiate sampling of this Outlet in the event an overtopping condition appears imminent.

24. **Non stormwater - Fire Suppression (Potable) Water Response:** *Commenters are concerned that the discharged water that Rockwool seeks permit coverage for is not water entirely composed of stormwater associated with industrial activity. Most egregiously it contains a significant volume of treated well water that will be used at the Rockwool facility and its grounds for fire protection. Well water used for fire suppression is not stormwater.*

RAN 5 facility discharge occurs through designated stormwater outfalls. Some discharges called "non-storm water discharges" are allowed by regulation to be mixed and discharged with the facility's storm water runoff, and by themselves do not require a permit. These allowable non-storm water discharges include fire line flushing, training, and actual firefighting.

25. **Inventory of Existing Pipelines Response:** *Commenters are concerned that the Groundwater Protection Plan Requirements are not being met in that an inventory of existing pipelines is not accurate.*

The facility is supplied by an underground natural gas line owned and operated by Mountaineer Gas that enters the western property boundary of the site, loops around the northeast corner of the facility, and is directed through a Mountaineer Gas meter before entering the process area. The facility also

has underground pipelines associated with a municipal/sanitary wastewater collection and pump station that ties into an offsite trunk line sewer system (immediately east of the site), for discharge to

the City of Charles Town Wastewater Treatment Plant (WWTP). Rockwool has received approval as an Industrial User (IU) on the City's NPDES permit for discharge of wastewater associated with water softening and reverse osmosis treatment of potable water at the site. Additionally, there is an underground water line from the Reuse Pond and one from the permanent stormwater pond that provides water to be used in the production process. Once inside the facility there are no underground process pipelines.

26. **Baseline Parameters Response:** *Commenters are concerned that the required eight baseline parameters have not been submitted.*

    The eight baseline parameters are to be submitted after operations at a facility commences. The public has access to all information regarding sampling using the DEP's public access portal.

27. **Discharge to the City of Charles Town Response:** *Commenters have questioned what discharge will be going to the City of Charles Town.*

    Sanitary and water treatment effluent (which treats city water) is routed through underground sanitary sewer lines to the City of Charles Town Wastewater Treatment Facility prior to being treated and discharged.

    Facility water treatment effluent discharge is metered and sampled on-site prior to entering the common waste stream. The common waste stream is pumped over via an on-site pump. This is further described in the Industrial User Wastewater Permit Modification submitted to the WVDEP that has been approved via the Modification of Existing NPDES Permit, WV0022349, of the Charles Town Wastewater Treatment Plant, issued on 03/01/19.

    Floor drains in office space, bathrooms, and other areas are directed through the sanitary sewer to the Charles Town WWTP. No interior building floor drains are connected to the storm drain system. In addition, these drains do not discharge to an exterior area where they may affect a storm water drain. Therefore, the potential risk to the groundwater from these floor drains is considered very low.

28. **Total Discharge per Day Response:** *Commenters have questioned the discharge per day as excessive or inappropriate.*

    The volume discharge is an average flow of stormwater from the site calculated based upon the size of the site, surface conditions of the site and the meteorological conditions of Jefferson County. It does not mean that this is the amount of stormwater that discharges from the site every day. It is the average that may discharge during a storm event. There is no correlation between the stormwater flow and the projected industrial wastewater discharge volume.

SECTION B Multi-Sector Stormwater General Permit - Responses to Specific Comments

Comment 1: (a) It has been well defined that the Rockwool's Ranson facility is sited on Karst geology[1]. Despite this information being readily available, when originally permitting the Rockwool facility, the Site Selection Criteria (West Virginia Legislative Code §47-58, Groundwater Protection Regulations, Section 4.10) were not followed. "Facilities or activities must determine if they are planning to locate or expand into areas of karst, wetlands, fault(s), subsidence, or delineated wellhead protection areas, as determined by the Bureau of Public Health. If areas of karst, wetlands, fault(s), subsidence, delineated wellhead protection areas or other areas determined by the director to be vulnerable based on geologic or hydrogeologic information, are determined to exist then the facility or activity design must adequately address the issues arising from locating in the area(s) of a potentially more vulnerable groundwater resource". This facility should never have been permitted on karst. Rockwool clearly did not describe an understanding of Karst in its original 2017 permit application. Rockwool should be sited in a more appropriate location. Karst aquifers are known to be "extremely vulnerable to pollution" due to direct connection between the surface and underlying high permeability aquifers[2]. The groundwater at the Rockwool site is only 60 feet below the ground. Further Karst is known to have "severe ground instability problems". This puts buried utilities like sewer and gas lines at risk for damage or failure with subsequent ground or surface water contamination. This makes the "aquifer vulnerability" in karst areas very high.

(b) A simple peer reviewed literature search reveals a plethora of information highlighting the risks associated with development in karst geology and many techniques for studying the impact of development on such land. It does not appear as though the municipality of Ranson employed any of these methods when it incorporated or rezoned this area. However, this oversight or lack of due diligence by Ranson does not absolve the DEP of its responsibility and liability to protect the water resources. Such a search will also reveal many techniques and methods for designing best strategies for limiting risk in a Karst area. It does not appear as though Rockwool employed any of these techniques or guidelines. It seems catastrophic failure of a liner and the contents of the basins escaping into the groundwater resource maybe the only way that Rockwool will know a sinkhole has formed under one of its sediment basins.

(c) It is clear that for decades now policy makers have been using "Aquifer Vulnerability" measures, of which Karst is very high, to set land use and water resource protection policy. The guiding documents of the WVDEP recognize this. The introduction to the WVDEP document *Stormwater Management Design in Karst Areas* states, "it is important to note that the potential for geological hazards, damage to infrastructure, and groundwater contamination is an ongoing concern when developing in these areas. And that best approach is to craft stronger comprehensive land use plans that direct new growth away from karst areas to more appropriate locations." This development is clearly inappropriate for this location. Information to this effect is well rooted in the peer review literature and has been widely available for decades now. Why then would this industrial permit be approved? Rockwool should relocate in a more appropriate location where it is not such a risk to the water resources. Rockwool has clearly not demonstrated an understanding of the importance of the hydrogeologic setting and therefore at least the permit should be denied until it is more appropriately understood and addressed.

Response 1(a). See Section A. Response 4.
Response 1(b). See Section A. Response 4.
Response 1(c). See Section A. Response 19.

Comment 2: Sinkholes: Karst geology is prone to sinkhole development. Sinkholes provide direct connection between the surface water and any contaminants it may contain and the groundwater. The Rockwool site is located in the area with the largest sinkhole density in Jefferson County. Furthermore, a study demonstrated that in this area, several factors increased the rate of sinkhole development and these included presences of surface water and development). Again, the DEP guidance documents agree. The Chesapeake Bay karst stormwater guidance document, which WVDEP cites, clearly states that detention and retention ponds are not recommended on Karst. Again, quoting WVDEP's own Karst guidance: "attenuating surface runoff will increase the rate of sinkhole formation and potential groundwater contamination." Therefore, just by virtue of disturbing the ground on the site and creating ponds as Rockwool is seeking permit permission to maintain, Rockwool will actually increase the rate of sinkhole development. As of this summer, there were at least 17 sinkholes on Rockwool's site. Most of these sinkholes are inside of stormwater ponds, with seven sinkholes appearing in Rockwool's rainwater reuse pond during construction. Rockwool was cited for failure to report a sinkhole, when the first sinkholes appeared in 2018.

The DEP approved Rockwool's sinkhole mitigation procedure in 2018. First, the sinkhole mitigation procedure allows too much time to pass between the identification of a sinkhole and when it needs to be repaired – time that allows for possible drinking water contamination. The DEP should require reporting within hours of noting the sinkhole, and emergency intervention to happen within 24 hours. The DEP should directly oversee these repairs. Each sinkhole should be evaluated to ensure the optimal remediation procedure is employed[5]. There is no contingency for addressing any new sinkholes, which might open up, nor any discussion of inspecting swales, ditches or ponds related to the stormwater management to check for new sinkholes. Again, it seems that the only way Rockwool will know they have a problem is when there is catastrophic failure. As mentioned above, Rockwool should be required to have a multimodal detection system for sinkhole development.

In the IEP, Rockwool states, "due to the karst features underlying some of the property, voids and soil filled zones are located within some of the Limestone bedrock. A geotechnical survey conducted in 2017 identify karst anomalies within this property. Following the geotechnical survey and during construction, Rockwool identified and mitigated ten sinkholes on site reported to the WVDEP, as of June 21, 2019, shown on the attached Figure 2A. Rockwool prepared a supplemental Structure Sinkhole Repair document that was approved by the WVDEP to properly repair the sinkholes and mitigate potential contaminant pathways to groundwater. During construction, identified and located sinkholes were remediated following the procedure described in the supplemental sinkhole repair document, approved by WVDEP. The intention of repair work was to minimize infiltration and additional solutioning." With repeated mention of "WVDEP approval", it is obvious that Rockwool is putting the liability with respect to sinkhole management on the DEP. Shockingly, this paragraph is the first mention of karst in the document. This statement is not even correct, as there were at least 17 sinkholes on site at this date.

Response 2. See Section A. Response 4.

It is clearly stated in The Multi-Sector Stormwater General Permit (GP) Issued on September 12, 2019 "*Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to Title 47, Series 11, Section 2 of the West Virginia Legislative Rules promulgated pursuant to Chapter 22, Article 11*".

Comment 3: Rockwool's sinkhole mitigation procedure includes adding liners to the ponds. It is well known and studied that liners fail when voids like sinkholes open under them. In fact, there is a whole field of study into detecting sinkhole development, void development, and earth movement under such liners. In an effort to prevent disaster, Rockwool should be required to install the latest technology in and beneath the liners. In fact, it seems a multimodal approach would be most appropriate here to detect sinkhole development and liner stress given the rinks associated with failure.

Response 3. See Section A. Response 20.

Comment 4: The DEP director can and should require Rockwool to perform routine groundwater monitoring. It is unacceptable that Rockwool has not included this in its plans. With regard specifically to outside material storage and disposal areas, and impoundments, for industrial facilities, West Virginia Legislative Code §47-58, Groundwater Protection Regulations, Section 4, states that "Placement of groundwater monitoring stations may be necessary to determine if contamination has occurred or is occurring," and "Groundwater monitoring stations may be necessary to assure protection of the groundwater resource." Given the information cited above about the sinkholes on site and our sensitive groundwater resources, DEP should require regular and frequent monitoring and reporting of groundwater.

Response 4. See Section A. Response 20.

Comment 5: Inappropriate storm water design for Karst geology:
(a) In this section, Rockwool mentions 10 sinkholes were identified as of June 21, 2019, however, the number identified at that time was 17. (b) Further they say, "the Level 1 Bioretention Areas are designed so that infiltration is not used." This needs to be clarified. These bioretention ponds are not noted to be lined so it is unclear what Rockwool is referring to when it says infiltration is not used. This needs to be addressed before this permit can be approved.

Response 5(a). See Section A. Response 4.
Response 5(b). See Section A. Response 5.

Comment 6: Topographic and Site Map:
The Multi-Sector General Permit requires a topographic map be provided that extends at least a mile beyond Rockwool's property that shows the following: all intakes and discharge structures, sinkholes, drinking water wells, springs, and surface water bodies. Rockwool's topographic map and site map are deficient. There are several of these features within one mile that are not shown, including known in use drinking water wells, sinkholes, and documented wetlands. Rockwool falsely claims there are no wetlands. Further, Rockwool only depicts 10 of the 17 documented

sinkholes on its property and none beyond its property. Mountaineer Gas Company did an extensive Karst inventory of sinkholes prior to installing the natural gas pipeline and those sinkholes are also not discussed or depicted on any maps in the IEP or the General Permit application. Outlet #1 and #2 discharge to a field in the northern area of Rockwool's property; it is unclear from the topographical map if there are sinkholes in this area. These deficiencies in the topographical and site maps must be corrected. Further, these deficiencies reflect a lack of respect for the neighboring community and resources.

Response 6. See Section A. Response 21.

Comment 7: Buried Utilities: Rockwool failed to inventory and discuss its existing underground pipelines in the multi-sector general permit. Applicants are required to provide an inventory of all "operations, which may reasonably be expected to contaminate groundwater resources." The following potential sources are specifically listed: Outside materials storage areas, Disposal areas, Loading and unloading areas, Bulk storage and distribution areas, Drums, Sumps, Pumps, Tanks, Impoundments, Ditches, and Underground Pipelines. Rockwool specifically and falsely states that it has zero underground pipelines when, in fact, Rockwool has at least two underground pipelines, including a natural gas pipeline and a liquid oxygen pipeline.

The natural gas pipeline runs between the furnace side of the building and both the Sediment Pond and the Water Reuse Pond, within 10 feet of the stormwater discharge outlets. Rockwool's liquid oxygen runs from the oxygen tanks that sit immediately south of the Stormwater Detention Pond, under the perimeter road and on to the furnace building. This is not an inconsequential fact. As described above, due to the karst geology, these pipelines are at particular risk of damage leading to groundwater contamination or explosion and catastrophic damage. Underground oxygen piping is also particularly vulnerable to damage by lightning, which may ignite the pipe material.

Pipeline ruptures and explosions have occurred all too often as a result of the failure to monitor pipelines for corrosion or cracks. Rockwool has failed to identify any plans for pipeline monitoring. Such plans should be identified and included in any permit and monitored by the DEP to ensure proper oversight and maintenance. The underground pipelines and their proximity to the Stormwater ponds and conveyances should be discussed in the IEP, as well as monitoring for corrosion and pipeline integrity.

Response 7. See Section A. Response 25.

Comment 8: Groundwater Protection Plan and monitoring:
(a) A great majority of the households and agricultural businesses depend on groundwater. If the groundwater were to be fouled, it would devastate our equine and agricultural industry and therefore our economy. It would devastate our local government with restoration cost and legal cost as citizens seek restitution. It would be a major burden to households who will be forced to find alternate undoubtedly more expensive sources of water. We have seen this play out across our state as the unknown consequences of previous industrial and extractive activity came to bear. Here we have the chance to prevent it. We are counting on the DEP to protect the groundwater we depend on in Jefferson County.

(b) The section of Rockwool's multi-sector application for groundwater data is woefully incomplete and demonstrates a cursory analysis of what is truly a foundational concern. The DEP guidelines for successful Groundwater Protection Plan lists the groundwater analysis, data and other related information that should be included. While Rockwool mentions it exist, it barely addresses it. The plan requires "a discussion of all available information reasonably available to the facility of activity regarding existing groundwater quality at, or which may be affected by the site." Previous groundwater data and monitoring are easily available from extensive USGS and county research, yet Rockwool doesn't describe them. Rockwool also fails to describe the geophysical testing done in 2017. The narrative references groundwater data that are included in a table in the appendix, but the appendix section is incorrectly titled, the table has no descriptive text, and does not even label the units of measurement, rendering it useless.

As cited in the sinkhole section above, there are REAL studies that are applicable to the Rockwool site and sinkholes. A USGS study used dye tracer tests to determine rates and directions of groundwater flow within the karst aquifer. Dye was injected into a sinkhole in Shenandoah Junction, about a mile from Jefferson Orchards. Two weeks later the same dye was detected at a monitoring point north of Shepherdstown. Within 20 weeks, it was detected at an additional 5 sites between Kearneysville and Shepherdstown. The study reported movement of up to 840 feet per day – which indicates that contamination, can happen quickly. This sort of information is in fact "reasonably available to the facility" and should have been considered.

(c) The director of the DEP can and should require Rockwool perform routine groundwater monitoring. It is reprehensible that Rockwool has not included this in its plans. West Virginia Legislative Code §47-58, Groundwater Protection Regulations, Section 4, states that groundwater monitoring stations may be necessary to determine if contamination is occurring or has occurred, and also to "assure protection of the groundwater resource." In section 4.9.c. it goes on to say, "new facilities shall monitor groundwater upon order of the director if the director reasonably believes that an industrial establishment or activity has the potential to contaminate groundwater." Page 69 of the WVDEP stormwater management guidance document states, "monitoring wells and groundwater sampling may be required by the director for the assessment of the potential for or existence of groundwater contamination." It is reasonable to believe Rockwool has the potential to contaminate groundwater, and monitoring for groundwater contamination should absolutely be required here. Given what we know about the sinkholes on site and our sensitive groundwater resources and knowing that 70% of the people in this county drink well water, the DEP should require frequent monitoring and reporting of groundwater.

Response 8(a). See Section A. Response 3 and 5.
Response 8(b). See Section A. Response 3.
Response 8(c). See Section A. Response 20.

Comment 9: (a) Gravel Surfaces: Rockwool falsely claims to have zero graveled surfaces in the footprint of its drainage areas. There are clearly several areas on the site plan that depict gravel surfaces. Two significant ones include a pad near the sewer pump station and a one-acre, non-paved, non-vegetated, outdoor graveled area referred to as the "waste pit" or "melt for reuse" storage area (corresponds to Area B170 in the Air Permit). (b) The waste pit or melt for reuse storage pad is

particularly alarming as the things Rockwool plans to store here include, furnace tap out, melt for reuse, waste insulation, returned insulation, and dewatered Water Reuse Pond cleanout. If these items are stored for more than 180 days, Rockwool may need to apply for a RCRA Subtitle D industrial waste storage permit. These unlined areas are susceptible to infiltration and pose a risk to both groundwater and surface water. These areas have not been evaluated and IEP must discuss these areas and the storage of waste products, by-products, and materials destined to be recycled.

Response 9(a). Per Storm Water Prevention Plan (SWPPP), only the access roads at the southern end of the facility will be gravel. Within the 99-acre site, there are 31.6 acres which are impervious which include the manufacturing building and ancillary support areas including other buildings, concrete pads, and asphalt and gravel roads. The remaining acreage is vegetated. Sufficiently impervious concrete pads are to be provided where material is unloaded or handled or fueling takes place. Roads that handle commercial traffic are to be asphalted.
Response 9(b). See Section A. Response 20

Comment 10: Process wastewater illegally allowed in Outlet #2:
Storm water that runs off site B170 waste pit or melt for reuse area that is described in the above section will go to Bio-retention Basin #2 via a perimeter ditch and then to outlet #2. This water is not stormwater; it will actually be process wastewater. West Virginia Legislative Code §47-10-2.41 defines "process wastewater" to mean any water that, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product. As described in the above section, site B170 will contain water and materials that have contacted it processes and come in contact with the aforementioned products. Discharge of anything other than stormwater is prohibited from outlets. Therefore, this is an illegal discharge and should not be allowed.

Response 10. Per Figure 3 – Drainage Area Map located in the SPCC Plans; the Reuse Area is located in the drainage area to the rainwater Re-use pond. The rainwater re-use pond will not discharge to an outlet. See section A. Response 24 for additional information on the reuse pond.

Comment 11: The Water Reuse Pond is not a stormwater structure: Rockwool states that "filter backwash" and "heat" water will go to the Water Reuse Pond. Rockwool claims the Water Reuse Pond is a stormwater management structure. However, "filter backwash" and "heat" are considered pollutants by the EPA (40 CFR 122.2). Therefore, these materials are process-related industrial pollutants. Further, the pipe that caries these materials to this pond must be treated as a point source of industrial effluent and regulated as an outlet. Rockwool describes in the IEP that runoff from to this pond could, "contain dust from handling of raw materials for the melting process, which would include solid materials such as stones, slags and melt for reuse items," and this pond could receive sprinkler system drainage from inside the binder storage building. By design, the pond has no outlet for overflow. During construction, 7 sinkholes formed inside of this pond. It is now designed to have a triple liner to prevent further infiltration to groundwater. So, with no outlet and a liner, this is actually a pool, and by Rockwool's own admission, it may contain more than just rainwater. This pond cannot

be classified as simply a stormwater management structure. This pond must have threshold-monitoring requirements with routine sampling of the contents.

The IEP describes how this pool is sized for a 100-year rain event, and in the event that it is approaching capacity due to a large storm event, Rockwool can store and treat the water. "For example, RAN5 could employ water tank trucks to haul off water to be treated at a designated publicly owned treatment works." It is unclear which POTW they are referring to. If it is Town, this should have been described in the NPDES modification that was approved on March 1, 2019. Since it was not described, it should not be allowed by the Charles Town Utility Board (CTUB). This is too serious a risk to not be specifically addressed. Rockwool must amend its application to identify what is the trigger for the preparation for a "heavy rain event," where are the water tank trucks going to come from, if the trucks are contracted how will Rockwool ensure that they are actually available when needed, how will it ensure that the drivers and operators of these water tank trucks are actually properly qualified to be handling contaminated water, and most importantly where will these trucks dispose of the contaminated water? What location has agreed to take such water? Rockwool should be required to test the contents of each tanker truck before it is hauled away, to ensure no hazardous materials are mixed with rainwater, and that the trucks are not then contaminated for further water hauling. This should be further evaluated and well defined in the Rockwool permit application.

Response 11. See Section A. Response 23.

Comment 12: Potable water used for Fire protection is admixed with stormwater: The Multi-sector General Permit has a pure prohibition of non-stormwater discharges. The discharge water that Rockwool seeks permit coverage for contains a significant volume of treated well-water (potable water), supplied by Jefferson Utilities Inc. (JUI), that will be used for fire protection. Rockwool's site plan (approved by the City of Ranson) calls for a fire protection water line, supplied entirely by potable water. Rockwool's Industrial User NPDES permit, issued to the Charles Town Utility Board (CTUB) on March 1, 2019 (WV0022349), the potable water flow for fire suppression will be 75,268 gallons per day. This is a significant amount of water and well water used for fire suppression is not stormwater. Yet, the water from fire line flushing, training, and actual firefighting would flow through all three of the drainage areas and would convey to all four stormwater management structures. Rockwool must thoroughly and appropriately characterize how the potable water discharges related to fire protection will be handled so that it does not mix with stormwater. The permit must be modified to address this important issue.

Response 12. See Section A. Response 24.

Comment 13: Rockwool's IEP fails to identify all of the outdoor process activities: According to Rockwool's air permit (R14-0037) describes a "melting furnace portable crusher" as an outdoor process. This process is a significant source of dust and fugitive particulate matter, third only to the two steam stacks. This process is planned at least quarterly. The air permit describes this process as occurring in a dedicated area that is uncovered and unpaved, B170. Therefore, B170 is also a materials processing area in addition to a storage area for process-related industrial pollutants as described in a

previous section. Again, this area is uncovered, unlined, and about 20 feet from the Water Reuse Pond and Bioretention Basin #2. This outdoor process must be considered in the IEP.

Response 13. Outdoor portable crushers are not proposed under Registration WVG611896.

Comment 14: IEP fails to address the potential for dust and particulate contamination of stormwater discharges: Rockwool will produce fugitive dust and particulates that may contain formaldehyde, menthol, phenol, silane coupling agents, and other hazardous substances. Several processes generate fugitive dust, including the portable crusher operation mentioned in the previous section. This process is entirely uncontained and uncontrolled by any pollution control devices. In addition, Rockwool's controlled processes will produce up to 134 annual tons of PM2.5 and 154 annual tons of PM10. Air modeling suggests that the bulk of the dust and particulates will fall out within Rockwool's drainage and be deposited on building roofs, asphalt surfaces, parking lots, roads, and vegetation. The stormwater, which falls on these surfaces, will capture the dust and hazardous particulates contained within and convey them to the stormwater and bioretention ponds and outlets. As a consequence of the toxic nature of the underlying contaminants, these captured contaminants have the potential to negatively impact groundwater and surface water. The effect on water resources has not been evaluated and needs to be addressed before this permit is approved.

See Section A. Response 5. Rockwool's drainage runoff from building roofs, asphalt surfaces, parking lots, roads and vegetation will be directed into appropriate drainage control structures.

Comment 15: Internal plumbing plans should be included in the application:
The IEP shows that the Stormwater Management Pond that drains areas HrC and HeB, which covers parts of the manufacturing facility, discharges to a field north of Rockwool through Outlet #1. This Outlet #1 is expected to have discharge of 86,330 gallons per day. Is all this water in fact stormwater? Further in section 4.4.7 of the IEP it states, "no interior building floor drain is designed for connection to the storm drain system." Does this mean it will not connect or it may inadvertently even though it is not "designed" to do so? This should be clarified. It continues in this section to say that "floor drains in office space, bathrooms, and other areas are directed through the sanitary sewer to Charles Town WWTP." These "other areas" need to be clarified to determine where the other areas are and where they discharge. It is unknown if these "other areas" include process area floor drains and if these drain to the Charles Town WWTP. The DEP must require that the application contain the internal plumbing plans, to determine that no process water from the facility is expected to be discharged into ponds with a discharge to the natural environment. No permit should be issue until this matter is specifically resolved.

Response 15. HrC and HeB are map unit symbols for soil types. The estimated discharge of 86,330 gallons per day is in fact stormwater based on 37.0 inches/year. No interior building floor drain is designed for connection to the storm drain and will not inadvertently connect to the storm drain system. It is clearly illustrated that no interior building floor drains are connected to the storm drain system and no process water from the facility is expected to be discharged into ponds.

Comment 16: Storage of unknown chemical in close proximity to water resources:

(a) Seven of the 13 Aboveground Storage Tanks (AST) on site have undisclosed contents and hold 88,500 gallons of unknown chemicals. If the contents of the ASTs are unknown, there is no way to determine if the ASTs are in compliance with 47 CSR 63 (AST Design Construction and Installation), or if proper and adequate containment is provided. It is impossible to evaluate the application for adequate groundwater protection water resources absent this information. Further, it is reckless to allow unknown industrial chemicals this near stormwater ponds, sinkholes, and water supply protection zones on karst geology.

(b) Additionally, there is no information provided about Rockwool's plans to monitor and ensure tank integrity. The risk of corrosion, leaks, and vapor releases from storage tanks has resulted in multiple disasters in this country. Rockwool's permit application must include its plans for tank integrity inspection.

(c) If there were a spill, the public utility leaders would need to know the contents immediately. This information needs to be on file so an appropriate plan can be made before it is an emergency situation. Disclosure of the contents of these ASTs is imperative, required by statute, and should be part of the permit. Until this information is included with specificity the permit should be denied.

Response 16(a). See Section A. Response 18.
Response 16(b). Tanks are located within concrete containment structures or double walled and are supported sufficiently by impervious concrete, reducing the potential for bottom corrosion, as there is reduced risk for significant contact with external moisture. This facility's personnel routinely visually inspect and document the facility's regulated tanks for corrosion, pitting, or other signs of aging, as is consistent with the WV AST Act requirements. The regulated tanks are inspected and certified by a qualified individual every three years as required by the AST Act.
Response 16(c). Facilities with aboveground storage tanks (ASTs) holding oils of any kind may be subject to U.S. EPA's Spill Prevention, Control, and Countermeasure (SPCC) regulation (40 CFR Part 112). See Section A. Response 18.

Comment 17: Substantial Harm Determination:
The Rockwool Facility is located such that any toxic release to groundwater or surface water from the facility would shut down at least one public water supply and should therefore be classified with a Substantial Harm Determination. Harpers Ferry sources their drinking water from Elk Run, Jefferson Utilities Inc. from the aquifer, and Shepherdstown from Rocky Marsh Run. Additionally, there are thousands of households, businesses, and farms that source their drinking water for humans and animals from private wells in the aquifer. As discussed in the karst section of this document, the aquifer is contiguous over a long area of the county and the flow rate of the aquifer is rapid. A Substantial Harm Determination would require some relevant safeguards be in place.

Response 17. See Section A. Response 16.

Comment 18: Waste material usage:
Rockwool states, "No wastes or waste materials are used for deicing, fills, or any other uses on site unless provided for in an existing rule." The 'existing rule' needs to be further defined so

that it can be determined what material is being used for what. The permit should not be approved until this is done.

Response 18. Roxul has clarified this section in the GPP section 5.2.13 (formerly Section 4.6 of the IEP) to state that waste materials are not used for deicing, for fill material, or for other uses.

Comment 19: (a) Inappropriate Facility Design, Control, and Operations:
This sections states, "storage of solid waste or recycled material is constructed with an appropriate concrete surface that is chemically resistant to waste or recycled material. Liquid is not stored in designated solid waste or recycled material areas and containers that are outside have cover lids. The collection system is connected to the process water system and does not discharge to the stormwater outfall." The solid waste area needs to be lined, in addition to a 'concrete surface that is chemically resistant.' DEP guidance for stormwater controls says it **requires** "the employment of mitigating practices to eliminate potential contaminants from reaching the stormwater structure." Although the rainwater reuse pond is lined, there is still a risk of groundwater contamination via this structure, as there are 7 sinkholes under the pond already. Therefore, more needs to be done to prevent waste products reaching the rainwater reuse pond.
(b) Also, the gravel pit discussed earlier and labeled "waste pit" or "melt for reuse" storage area will also contain waste and it is also unlined. However, this will come into contact with liquid as it is uncovered and is the destination for dewatered sludge from other ponds. These areas have not been evaluated and they must be addressed along with the storage of waste products, by-products, and materials destined to be recycled. It is possible the RCRA should apply here. The permit should not be approved until this issue is specifically addressed, including an analysis of whether RCRA applies to these activities; and, if so, whether proper regulatory action has been taken.

Response 19(a). As per Section 5.2.1 of the SWPPP, the RAN 5 facility has been designed and constructed so that: (1) stormwater does not contact process water and (2) stormwater that does contact the manufacturing area does not discharge from a stormwater outfall. The Facility Design, Control, and Operations has been prepared to comply with the Multi-Sector General Water Pollution Control Permit issued September 12, 2019.
Response 19(b). See Section A. Response 20

Comment 20: Inappropriate description of ponds and site runoff design:
(a) Rockwool states, "the outfall discharges water onto an outlet apron during discharge to maintain non-erosive discharge velocities." The outfall apron needs to be better described and monitoring parameters with action trigger points need to be defined to prevent erosion and sinkhole formation. (b) Rockwool further states in this section, "for construction activities that will disturb the soil, appropriate notifications or applications are made to the WVDEP and Jefferson County to ensure compliance with local and state requirements. The site is currently continuing construction under approved West Virginia Construction General Stormwater Permit, WVR108876." This is already inaccurate and not being followed. Rockwool did not apply for coverage under the statewide stormwater construction permit in a timely manner and has been operating without coverage. This fact must be taken into consideration when making final decisions regarding the trustworthiness and reliability of Rockwool.

Response 20(a). See Section A. Responses 5 & 14.
Response 20(b). See Section A. Response 1.

Comment 21: Administrative Comments on WVG611896:
(a) There are also administrative reasons that the permits should not be approved. The Multi-sector permit is for post-construction activities and should not be authorized until all construction is complete. At this time, the construction permits have not even been completed. A version of Rockwool's Multi-sector permit was released by DEP to WV Rivers Coalition on October 21, 2019. The PDF contains the word "draft" but the document itself is not stamped draft. A letter, which was not dated, that was sent from DEP to Rockwool says that the permit has already been approved. This coupled with the PDF not being stamped is concerning because the public comment process is not even finished. If the permit was actually approved prior to the public comment period being completed and the issues raised by the public resolved, that would be a violation of the process for granting the permit. Please explain whether this permit was actually already granted, and by whom? If not granted, please explain the letter.

(b) Further the State-wide Multi-sector permit was just renewed on October 12, 2019. This most recently approved version is more protective of the environment and people then was the previous iteration and therefore requires companies like Rockwool to be more vigilant and responsible. Is this why Rockwool's Multi-sector permit was effective on October 12 under the previous iteration of the state wide multi-sector permit that is less onerous and far less protective of our environment and our drinking water? We expect an explanation for the date of issuance, and whether the approval in accordance with the previous Multi-sector permit regulations was actually granted prior to this process being completed. We believe that this may give rise to a legal challenge on the validity of the permit. Rockwool is a new facility, is not yet operational, and has not submitted a correct or complete application as of yet. The Draft Permit Registration should be corrected to reflect Rockwool's potential operation under the 2019 WVDEP EPA-approved WV NPDES Permit No. WV0111457. However, we believe that when and if Rockwool is able to submit a complete and accurate application that is truly sufficient to protect our ground and surface water recourse, this should be an Individual WV/NPDES Water Pollution Control Permit and not a Registration under Permit No. WV0111457. We believe that under 47 CSR 10 Section 13.6.B.2.a that the WVDEP director should require Rockwool to maintain this separate permit that will provide more protection to our groundwater resources.

Response 21(a). The NPDES Multi-Sector Stormwater General Permit registration (MSGP) number WVG611896 was not previously approved.
Response 21(b). See Section A. Response 12.

Comment 22: Inappropriate Signatory:
In section 4.6, it states "4.6.a.1.A. A president, secretary, treasurer or vice-president of the corporation in charge of a principle business function or any other person who performs similar policy or decision-making functions for the corporation; or 4.6.a.1.B. The manager of one (1) or more manufacturing, production, or operating facilities employing more than two hundred fifty (250) persons or having gross annual sales or expenditures exceeding twenty-five million dollars ($25,000,000), if authority to sign

documents has been assigned or delegated to the manager in accordance with corporate procedures." The IEP is signed by Mark Graves; to our knowledge, he does not qualify as a signatory. This is significant, because the permit may have been more accurate if one of the above-mentioned individuals had signed it under penalty.

Response 22. See Section A. Response 22.

Comment 23: Inaccurate limit of disturbance: According to Deed Book 1197 Image 672 Section C, Section D and Section 2, Rockwool was granted a 5.7-acre construction easement. This acreage should be included in the limit of disturbance (LOD). This would take the LOD to 104.5 acres, triggering the requirements for LOD greater than 100 acres. This is a material and substantial alteration and addition to the permitted facility that is not represented in the existing permit. As required under 47 CSR 10, Section 9.2.b in accordance with Section 10 and the public notice procedures of Section 12, should this information have been reported when it was finalized on October 25, 2019, and should this permit application be revised to reflect this addition?

In addition, defined in the DEP LOD rules, "disturbed area" should include the Water Line, Gas Line, and Planned Sewer Line disturbances that occurred on Rockwool property must also be considered part of Rockwool's LOD. Further, the previously submitted soil maps in the original 2018 approval of WVR108876 suggest the LOD, based on soil type, to be greater than 100 acres. These facts have not been taken into consideration in connection with the Permit Reissue and must be prior to any final issuance.

Response 23. See Section A. Response 10.

Comment 24: (a) Sinkholes, as noted above in the technical comments for the multi-sector permit, are a significant concern as they lead to direct contact of ground water with surface water and any contaminant that surface water may carry. Rockwool doesn't seem to appreciate or understand this issue. On July 19, 2019 a DEP permit reviewer requested additional information, "Sinkholes. Include table or color code to denote status of sinkholes." Rockwool failed to respond in either the application or the draft. The locations of 10 sinkholes `are noted, but there are 17 documented sinkholes.

(b) There is no information about current mitigation status of currently documented sinkholes, contingency for addressing any new sinkholes or of detection strategies for new sinkholes in swales, ditches or ponds related to the stormwater management. Under this permit, a catastrophic failure of the liner occurs, and the contents of the basins escaped into the groundwater resource. This is completely unacceptable.

(c) Rockwool's sinkhole mitigation procedure includes adding liners to the ponds. It is well known and studied that liners fail when voids like sinkholes open under them. In fact, there is a whole field of study into detecting sinkhole development, void development, and earth movement under such liners, in an effort to prevent disaster. Rockwool should be required to install the latest technology in and beneath the liners. In fact, it seems a multimodal approach would be most appropriate here to detect sinkhole development and liner stress given the rinks associated with failure.

Response 24(a). See Section A. Response 4.
Response 24(b). See Section A. Response 4.
Response 24(c). See Section A. Response 9.

Comment 25: The receiving stream is again listed incorrectly as Elk Run. Again, the correct stream is Rocky Marsh Run, as is noted on DEP's inspection reports for Rockwool. Naming the right stream is not difficult to do! Yet this is not an inconsequential matter. In fact, it is critical. Understanding the watershed is central to these permits because the whole point of these permits is to protect the water resources!

Response 25. See Section A. Response 6.

Comment 26: Inappropriate and ill-defined flows: Rockwool claims that Outlet 1 will have 86,330 gallons of stormwater flow per day and Outlet 2 will have 10,207 gallons of stormwater flow per day for a sum of 96,537 gallons of stormwater per day. Oddly, this seems high; more peculiar still is that it is nearly equal to Rockwool's average projected industrial wastewater discharge volume of 97,650 gallons per day, as obtained from a flow diagram to the Charles Town Utility Board for their NPDES permit (WV0022349) modification. Why are these numbers so high and what is the significance of the similarity?

Response 26. See Section A. Response 28.

Comment 27: Public Notice Sign: The permit required signage at the site is and has been incorrect since it was installed. It has the incorrect date and was originally installed in the incorrect location. This needs to be addressed prior to the issuance of any permit.

Response 27. Based on an inspection by Environmental Enforcement, the sign has been located in the correct location and noted on the appropriate map.

Comment 28: Unresponsiveness to Technical Requirement of Outlet Design:
Velocity dissipation devices are required by the General Permit for the two designated outlets, to limit erosion and sinkhole formation. However, Rockwool's Sediment & Erosion Control Plan only calls for a "flow spreader" (Appendix B, Figure 2). This is inadequate to meet the General Permit requirements. The only way that Rockwool will know a sinkhole has formed under its sediment basins is when Permit requirements and will not protect against erosion. The General Permit requires "Outlet protection from a pond, waterway, diversion or culvert must extend as a properly stabilized waterway to a natural stable waterway." The outlets are depicted as discharging to an open field. This open field will not act as a natural stable waterway in this karst environment, especially with the potential discharge of 96,537 gallons per day.
This issue must be addressed prior to the issuance or reissuance of any applicable permit.

Response 28. See Section A. Responses 5 & 14. Outlets have been designed to dissipate velocity through conversion to sheet flow at the discharge points through use of rock outlet aprons or level spreading devices. Post development peak flow rates at the final outlet points

for the 1-year storm event have also been designed to be less than pre-development conditions. The outlets have been located to flow into the same natural stable waterway as pre-construction.

Comment 29: Administrative Comments on WVR108876 reissue #2:
The public has not been given information to understand which version of the statewide stormwater construction permit Rockwool would be authorized under. The first "2019" version, EPA approved and was effective February 9 of this year, was challenged by some industry groups, and the resulting settlement produced major changes which weakened the permit. Those changes are still pending because the EPA has not yet approved the revised permit. Which version of the 2019 statewide permit will Rockwool be authorized under? The first version, or the version with substantial changes? The permit should not be approved until this is made known to the public and the public is given time to comment.

Rockwool did not apply in a timely manner for the new 2019 permit and is currently operating without a permit. The 2012 permit it had been authorized under has expired. Again, DEP has not answered our direct questions about this. Any discharges that Rockwool is generating at this time, may be unauthorized and in violation of the Clean Water Act. This kind of flagrant disregard for the rules is unacceptable.

Rockwool began an application process to re-issue its stormwater construction permit in the fall of 2018 but withdrew it for unknown reasons. In November 2018, Rockwool went over one year in construction, and had substantial changes due to sinkhole remediation, yet DEP allowed them to operate without completing the application for re-issue.
Rockwool should be required to stop construction until this current application is approved. DEP stormwater management guidance document notes that groundwater protection plans need to be in place BEFORE stormwater structures are built.

Response 29. See Section A. Response 12.

Comment 30: Comments on Rockwool's Competence and Character for both WVG611896 and WVR108876 reissue #2:
(a) We believe that as career officials and environmentalists, you care about the environment and both how that environment affects quality of life and public health, as well as how human activity and industry affect the environment. For its part, Rockwool has shown from site selection to the careless and the downright negligent way that it has produced applications and conducted itself, that it has no such respect or care for our environment, our health, or our way of life. As we have highlighted, this is an abhorrently inappropriate location for such an installation and the current iteration of the permits do not go nearly far enough to protect the environment or the public.

(b) Further, the level of errors and misrepresentations in every permit Rockwool has submitted and its inability to comply with those permits demonstrates either sheer incompetence or intentional misrepresentation and negligence or both. We want to highlight a few of the many errors, incorrect information, and sloppy report preparation over several permits that call into question Rockwool's

ability to hold a permit and operate in accordance with laws and regulations. Attached is a more extensive but not exhaustive list.

(c) In its 2017 application for stormwater construction, Rockwool named the wrong receiving stream on its permit application. The correct receiving stream is Rocky Marsh Run. A year later, Rockwool continues to be inconsistent about this simple fact, using six different incorrect stream names. Sometimes, it correctly names Rocky Marsh Run, in other places, it names other streams, including Shaw Run, unnamed tributary to Elk Run, Pikeside Channel, Cold Spring Run, Opequon Creek, and Evitts Run. Naming the right stream is not difficult to do! This is not an inconsequential matter. In fact, it is critical. Understanding the watershed is central to these permits because the whole point of these permits is to protect the water resources!

(d) On its multi-sector permit application, Rockwool indicated that its two stormwater outflows were going to be discharged to Evitts Run, which is incorrect, as we just noted. Rockwool also said stormwater was going to the city of Charles Town stormwater management system, which doesn't even exist! At DEP's request, Rockwool has since fixed this error, but it is such a glaring error that one has to ask: was this incompetence or intentional? Again, the correct stream is Rocky Marsh Run. This is important because this stream is in the source water zone for Shepherdstown's water supply! Even more disturbing is that Rockwool does not include the nearby source water protection area for Shepherdstown in its Spill Prevention, Control, and Countermeasure plan. This is alarming because as the receiving stream Rocky Marsh Run and therefore Shepherdstown's water would clearly be affected by a spill. This demonstrates a disregard and carelessness toward the effect they will have on the local water resources.

(e) On permit applications, Rockwool has repeatedly given construction timelines that were many months to years shorter than was actually needed. Rockwool has repeatedly failed to check the box on its applications for "Grading period to exceed 1 year" and sign the associated statement for billing for public notice. This was not simply poor estimation as on the first stormwater construction permit reissue Rockwool responded to application section 10 entitled *Estimated Start and Completion Dates for Project*: "Start: October 2, 2017 Completion: September 2019" This was over 1 year, yet the checkbox was not marked. In May of this year, Rockwool requested and had a termination inspection for its stormwater construction permit. It was clearly not finished site work at that time. The termination was denied for this fact. But what prompted this termination inspection? Was it done in good faith? This demonstrates a general disregard for the requirements and standards.

(f) Rockwool has already been cited for six types of non-compliance of its stormwater construction permit including failure to report a sinkhole. This is deeply troubling because sinkholes are precisely the thing that could have a catastrophic effect on our groundwater and surface water resources. This failure to comply demonstrates either an unacceptable level of incompetence or a disregard for the requirements that rises to the level of malfeasants.
These permits should not be approved and we ask that under 47 CSR 10 Section 13.6.B.2.a that the WVDEP director should require Rockwool to be approved for and maintain an individual WV/NPDES Water Pollution Control Permit and not a Registration under Permit No. WV0111457.

Response 30(a). See Section A. Response 19.
Response 30(b). See Section A. Response 7.
Response 30(c). See Section A. Response 6.
Response 30(d). See Section A. Response 6.
Response 30(e). See Section A. Response 1.
Response 30(f). See Section A. Response 11 and Response 12.

Comment 31: (a) Request for an Evidentiary Hearing for WVR108876 reissue #2 and WVG611896:
Environmental regulations are based on the premise that Permittees, such as Rockwool, operate in accordance with the rules and regulations that have been established to protect the public from environmental contamination and degradation, Rockwool has a duty to comply with all conditions applicable to all permits. WV 47 CSR 10-5.1 To this end there is a relatively complicated and integrated environmental protections regulatory scheme that is supposed to provide that protection, and it is effectively dependent upon voluntary compliance and truthfulness.

(b) It is not possible for the government to be present at every potentially hazardous or contaminating event – every time a worker opens a valve to discharge hazardous chemicals or polluted process water, or every time there is manufacturing malfunction. So, industry is supposed to comply with the laws and follow the requirements of the permits that govern their activities. The Statute clearly states, "The permittee must comply with all conditions of this permit." WV 47 CSR 10-5.1.(a) In order to comply, a company must be both competent to operate in accordance with those rules and requirements and have the character and integrity to be honest about the inevitable malfunctions, unknown human errors, and unanticipated events that pose a risk to the public.

Rockwool has not demonstrated either the character or competence to be given the permits that it seeks to operate in Jefferson County. As noted throughout this submission, it has provided inadequate, incomplete, inaccurate, and misleading information upon which it requests approval for the DEP. Where, as here, Rockwool has failed to "disclose fully all relevant facts, or the permittees misrepresentation of any relevant facts at any time" the Permit may be Suspended or Revoked. WV 47 CSR 10-9.4.a. Rockwool has done just that and provided inaccurate, incomplete and deceptive information designed to frustrate the attempts of the DEP to review and understand its plans and processes. The DEP is a resource stressed organization, with only a few professionals to evaluate the permits, and legions of lawyers from Rockwool to pressure DEP to approve its permits regardless of the information provided.

DEP operates its program under an Agreement with the federal Environmental Protection Agency (EPA), and all applications for permits under the National Pollutant Discharge Elimination System (NPDES) Program must meet the requirements of the EPA approved process. WV Code 47 §47-10-2.3, and the federal Clean Water Act §307, 308, 402, and 405.

As you know, any permit issued "may be revoked, suspended, revoked and reissued, or modified during its terms for causes as set forth in Section 9..." WV Code 47-10-3.4. In addition, whereas here, there are conditions of the permit that do not provide for compliance with the applicable

requirements of the federal Clean Water Act and the State Acts, no permit should issue at all. WV Code 47 §3.6. So, for example, all of the issues raised above regarding the Karst geology and the risk posed for groundwater contamination have not been adequately addressed and Rockwool cannot comply with the requirements of the federal Clean Water Act or state regulations. This is a serious issue that, in its present configuration, make compliance virtually impossible. Additionally, various risk factors identified above, have not adequately been explained, such as the unspecified and undesignated water tankers removing contaminated pond water in a heavy rain event. This, and other issues, confirm that no permits should be issued to Rockwool until adequately and completely addressed.

Rockwool has also demonstrated that it does not have the character to be trusted to provide truthful information upon which the department can rely. Although Rockwool's Vice President Kenneth Cammarato sighed the Construction Stormwater Permit application, under the penalty of fine and imprisonment for submitted false information, 47 CSR 4.6, there are several places in the submittal that contain demonstrably false information. As described above, and in other comments, the size of the "limits of disturbance" is the relative timeline for sediment disturbance. Originally, in 2017, the representation was for a mere 21 weeks, now we are already at 10 months of earthwork. See, other comments submitted for additional information on inaccurate and incomplete information regarding the length of time for the grading phase of construction, the size of the area being developed, i.e., more than 100 acres.

Response 31(a). See Section A. Response 15.
Response 31(b). See Section A. Response 7.

Comment 32: Failed to check box for 'grading period to exceed 1 year', and sign associated statement for billing for public notice. According to an email from Rockwool to DEP, grading began November 1, 2017. The following is Rockwool's response to application section 10 *Estimated Start and Completion Dates for Project*: Start: "October 2, 2017 Completion: April 15, 2018". How could Rockwool's initial timeline for work have been so grossly underestimated? Grading continues now, nearly 2 years later.

Response 32. See Section A. Response 13.

Comment 33: Named the wrong receiving stream: In its stormwater pollution prevention plan, Rockwool incorrectly named Shaw Run and Opequon Creek as the receiving waters. Rocky marsh Run is the correct receiving stream.

Response 33. See Section A. Response 6.

Comment 34: Failed to note a source water protection area: Rockwool's site is within the Shepherdstown supply watershed (the Rocky Marsh Run watershed). Rockwool's stormwater pollution prevention plan notes "well head and source water protection areas are unknown", yet the source water protection area and associated plan is easily found on the web (http://www.region9wv.com/plans---studies.html). But a web search shouldn't have been

necessary; Rockwool's stormwater plan contractor Thrasher Engineering was the author of the Shepherdstown Source water plan.

Response 34. See Section A. Response 21.

Comment 35: Public notice sign was located in an area that was not readily visible to the public – at the end of Northport Avenue, where the public would not need to travel unless it was deliberately visiting the Rockwool site, for nearly a year. The following is a response from the Rockwool Ranson community (via Facebook messenger) on 8/10/2018, to my question of why the sign was moved. "Hi Lori. The sign has been onsite since last year, closer to the gate entering the construction site. We moved out closer to the road so that it's easier for more people to see." This move closer to the road occurred following an August 7, 2018 inspection – an inspection due to a request by me, where I had noted to the inspector the inadequate location of the sign. While Rockwool's answer that it was moved for more people to see is not incorrect – I think it does not fully disclose the facts; I had inquired as to why the sign was moved, and the response did not include that this came as a result of conversation with an inspector.

Response 35. Based on an inspection by Environmental Enforcement, the sign has been located in the correct location and noted on the appropriate map.

Comment 36: 9/11/2018 – DEP sent a notice of Violation to Rockwool for 6 violations to stormwater control, including failure to report sinkholes.

Response 36. See Section A. Response 2.

Comment 37: A Termination inspection by WVDEP on May 8, 2019 was marked "termination denied". Comment/deficiency noted: "Earth disturbance is still being conducted. Notice of termination is denied. You must either modify the permit or apply for reissuance to change acreage and terminate sections of the project." Who requested this termination and why? Did Rockwool request this termination despite knowing that it still had months of work to do before the site would be stabilized?

Response 37. A Notice of Termination (NOT) was requested on 04/03/2019 for 6.18 acres. The NOT was denied on the Termination Inspection dated 5/8/19. The following comments deficiencies and recommendations were noted "Earth disturbance is still being conducted. Notice of termination is denied. You must either modify the permit or apply for reissuance to change acreage and terminate sections of the project." A reissuance was submitted on 06/21/2019 requesting 6.37 acres undisturbed area be removed from the LOD.

Comment 38: Again, failed to check box for 'grading period to exceed 1 year', and sign associated statement for billing for public notice. According to an email from Rockwool to DEP, grading began November 1, 2017. The following is Rockwool's response to application section 10 *Estimated Start and Completion Dates for Project*: "Start: October 2, 2017 Completion: September 2019" This was over 1 year yet the check box was not marked. According to an email released as part of a DEP FOIA to JCV, Rockwool had agreed to a public hearing for this permit.

Response 38. See Section A. Response 13.

Comment 39: No explanation has been given as to why Rockwool applied to reissue this permit in fall of 2018, went through weeks of comment and response with DEP, yet then asked to withdraw this application.

Response 39. A Reissue NPDES/State Storm water Construction was submitted on 09/28/2018. The application was withdrawn on 11/01/2018 per Rockwool letter dated 10/31/2018. An explanation was not provided.

Comment 40: DEP official told me that Rockwool claimed they were not doing any groundwork in after November 1, 2018 when their permit expired (after 1 year) – but we have video documentation of earth moving activities November 30, 2018.

Response 40. The agency has no information about this claim being made. Grading activities continued after November 1, 2018 and have been ongoing throughout the reissuance review time frame.

Comment 41: The 98.5 acres Limit of Disturbance does not include earth disturbance from associated projects, such as the adjacent Northport Ave Extension. This and other projects are necessitated by the Rockwool facility and should be included in the total LOD.

Response 41. See Section A. Response 10.

Comment 42: Rockwool failed to reapply in a timely manner (90 days from February 9, 2019)

Response 42. Acknowledged. See Section A. Response 1.

Comment 43: (a) Rockwool's response to Section 10 question about receiving stream is to name Evitts Run. This is not the receiving stream for the site. The correct receiving stream for the site is Rockymarsh Run. (b) Furthermore, in the text 'comments' for section 10, Rockwool states that stormwater will be discharged to the City of Charles Town storm water system – which does not exist.

"Discharge from the stone outlet apron discharges to the City of Charles Town storm water system. The facility's storm water post development peak flow and overall discharge is less than predevelopment discharge and the BMPs in place are in compliance with the terms of WV's MS4. The closest surface waterbody is a former quarry now used for recreational purposes approximately 1,000 feet northwest. The City of Charles Town storm water system ultimately drains to Evitts Run and then to the Shenandoah River.

Response 43(a). See Section A. Response 6.
Response 43(b). See Section A. Response 27.

Comment 44: Figure 1 of the Spill Prevention, Control, and Countermeasure plan (SPCC) shows local source water protection areas. The map fails to include (and is centered in a way that would not include) the source water protection area for Shepherdstown. Rockymarsh Run is the source water stream for Shepherdstown water supply and should be noted.

Response 44. See Section A. Response 21.

Comment 45: The total discharge to streams of 96,537 gallons per day seems excessive unless there is no infiltration whatsoever and all stormwater is diverted directly to streams (or into an MS4 system, which does not exist there).

Response 45. See Section A. Response 28.

Comment 46: Page 23 of the SWPPP/GPP document states: "the site is currently continuing construction under approved West Virginia Construction General Storm Water Permit, WVR108876". However, Rockwool failed to apply to reissue its coverage within 90 days of the effective date of the new statewide General Permit.

Response 46. See Section A. Response 7.

Comment 47: Page 22 of the SWPPP/GPP document notes "During construction ten sinkholes were identified (approximate locations shown on Figure 2A) and repaired using WVDEP approved methods, as of June 21, 2019." However, there are at least 17 sinkholes, 5 of which were not repaired as of July 23, 2019. This is according to "Comment #3" of the comment tracking document for the application for reissue #2 of WV 108876. "The sinkholes were added to the map and numbered from 1-17. Sinkholes 1-12 have been repaired using the approved Supplemental Sinkhole Repair Document. Sinkholes 13-17 are recent developments and have not been repaired at this time." Did these sinkholes develop during the one month between these documents?

Response 47. See Section A. Response 4. Sinkhole development dates are not available however the Supplemental Sinkhole Repair Procedure approved 10-16-2018 requires Rockwool to report identified potential sinkholes to WVDEP. The Environmental Enforcement Inspector is the contact preference. Ten sinkholes were noted on the map submitted on June 21, 2019 and seventeen were noted on the map submitted on July 26, 2019. As of this date of this response, 20 of the 21 sinkholes identified at the site have been repaired in accordance with the procedure previously approved by WVDEP.

Comment 48: A company that is constructing a new facility and does not have a comprehensive plan to mitigate the effects of storm water runoff from their new factory roofs or parking lots can not to be trusted handle industrial wastewater safely.

Response 48. See Section A. Response 7.

Comment 49: Karst Terrain and Presence of Sinkholes: The facility is situated in karst terrain with at least 17 sinkholes identified onsite to date. An underground stream was mapped by Karst experts beneath the facility. Permitting this facility on an unpredictable landscape increases the potential impacts to groundwater.

Response 49. See Section A. Response 4.

Comment 50: Potential Groundwater Impacts: The depth to groundwater is about 60 feet at the facility. Where a sinkhole is present, there is a direct connection to groundwater and a higher potential for contamination should runoff enter a sinkhole.

Response 50. See Section A. Response 3.

Comment 51: Nearby Drinking Water Sources: The facility is 1,500 feet from the wellhead protection areas for an elementary school and a residential neighborhood in Karst terrain which increases the risks for drinking water contamination.

Response 51. See Section A. Response 21.

Comment 52: Nearby Recreation Water: An underground stream is mapped beneath the Rockwool facility which connects to an old quarry with two ponds that are now used for recreation. Potential groundwater contamination increases exposure risks at the nearby recreational waters.

Response 52. See Section A. Response 3.

Comment 53: High Contamination Potential: A total of 13 Aboveground Storage Tanks (ASTs) are located on site. The data sheets for materials used at the facility are listed as confidential. If there was a spill, the community would not even know to what they were exposed.

Response 53. See Section A. Response 18.

Comment 54: WVDEP cannot approve these permits as they currently stand. Doing so would be reckless and irresponsible and put the community's drinking water source and recreational waters at risk. WVDEP must require individual permits for the Rockwool facility to implement additional measures to mitigate risks and protect groundwater resources.

Response 54. See Section A. Response 11.

Comment 55: There are discrepancies in the application on the receiving stream. The online application lists Rockymarsh Run as the receiving stream; however, the Stormwater Pollution Prevention Plan/Groundwater Protection Plan lists the receiving streams as tributaries of Shaw Run and Opequon Creek. This discrepancy must be resolved.

Response 55. See Section A. Response 6.

Comment 56: This permit was granted in 2017; however, the applicant has already received a Notice of Violation (NOV) for failing to report sinkholes. This non-compliance is unacceptable and puts public health at risk. Rockwool should be fined for any additional NOVs to deter future non-compliance.

Response 56. See Section A. Response 2.

Comment 57: Rockwool's Structural Sinkhole Repair Procedure is woefully inadequate. The procedure allows for up to 24 hours to pass before a sinkhole is reported and up to 3 days to protect the feature from receiving runoff. This lax approach could result in groundwater contamination. Sinkholes should be reported and repaired immediately.

Response 57. See Section A. Response 4.

Comment 58: Sinkholes or dropouts encountered during construction must be reported to the spill notification hotline. WVDEP should require dye testing on sinkholes not immediately mitigated to ensure there is no direct connection to a drinking water source or recreational waters.

Response 58. See Section A. Response 4.

Comment 59: The facility should be classified with a Substantial Harm Determination because the facility is located at a distance such that discharge from the facility would shut down a public water supply.

Response 59. See Section A. Response 16.

Comment 60: Because of the increased risks to groundwater, WVDEP must require enhanced spill prevention and response measures, including increased size of secondary containment on ASTs, leak detection on all ASTs and tertiary containment.

Response 60. See Section A. Response 18.

Comment 61: The monitoring requirements are inadequate. WVDEP should increase the frequency to monthly during startup and the first year of operation and include groundwater monitoring.

Response 61. See Section A. Response 20.

Comment 62: Since the Material Data Sheets (MDS) are listed as confidential, the public has no information on pollutants used at the facility. WVDEP must review the MDS for all materials used at the facility and add those constituents to the monitoring requirements.

Response 62. See Section A. Response 18.

Comment 63: I am writing to register my strong objections relative to the Construction Stormwater Permit (WVR108876) and Industrial Stormwater permit (WVG611896) requested by the Rockwool plant.

I respectfully request that WVDEP fulfill its role as defender of the irreplaceable water sources West Virginians depend on and reject these permits.

(a) Given its location, on very porous rock and above underground streams, and given the kind of chemicals likely to be stored on the facility (not disclosed to the public) neither the construction nor the operation of this facility will be safe for residents, school-children, and fishermen.

We have seen too many examples lately -- from Elk River to Flint, Michigan -- where promises by companies like Rockwool or by government agencies more concerned about money than anything else proved to be empty words at best, and lies at worst, and people were poisoned priceless places destroyed and the mess ended up costing the taxpayers far more than proper oversight and operations would have cost. In this case, there is absolutely no reason to trust Rockwool.

It has already violated the terms of its permit by failing to report sinkholes. And no wonder! The presence of sinkholes increases the likelihood that its runoff will pollute our water. Of course Rockwool wanted to downplay that risk. It should be fined for the lie, to demonstrate that we in West Virginia take our laws seriously. But the violation should also be understood as a sign of untrustworthiness. Can we really expect Rockwool to report sinkholes promptly, much less repair them in a timely fashion? I doubt it.

(b) And what happens if there are leaks of whatever contaminants Rockwool will be storing? Would the water supply have to be shut down? For how long? Californians are having a hard time doing without electricity because of a private company that cut corners on maintenance. What sort of leak sensors and automatic shut-off valves will Rockwool install if any? What is its maintenance schedule? How will it monitor its own operations and the nearby groundwater?

(c) Rockwool is a Danish company. Denmark has very strong environmental legislation. So Rockwool is coming here to West Virginia, because we are the perfect "third world country." Little regulation, but strong legal protections for contracts. Is this the kind of business we want to attract?

I thank you kindly for inviting this input and beg you to defend us, your fellow citizens. No one else will. I wish you a blessed day.

Response 63(a). See Section A. Response 19.
Response 63(b). See Section A. Response 20.
Response 63(c). See Section A. Response 2.

Comment 64: I am commenting on the Rockwool facility's Construction Stormwater Permit (WVR108876) and Industrial Stormwater permit (WVG611896).

(a) Due to serious water quality concerns, WVDEP cannot approve these permits as they currently stand. Doing so would be reckless and irresponsible and put the community's drinking water source and recreational waters at risk. WVDEP must require individual permits for the Rockwool facility to implement additional measures to mitigate risks and protect groundwater resources.

(b) There are discrepancies in the application on the receiving stream. The online application lists Rockymarsh Run as the receiving stream; however, the Stormwater Pollution Prevention Plan/Groundwater Protection Plan lists the receiving streams as tributaries of Shaw Run and Opequon Creek. This discrepancy must be resolved.

(c) This permit was granted in 2017; however, the applicant has already received a Notice of Violation (NOV) for failing to report sinkholes. This non-compliance is unacceptable and puts public health at risk. Rockwool should be fined for any additional NOVs to deter future non-compliance.

(d) The facility should be classified with a Substantial Harm Determination because the facility is located at a distance such that discharge from the facility would shut down a public water supply.

Because of the increased risks to groundwater, WVDEP must require enhanced spill prevention and response measures, including increased size of secondary containment on ASTs, leak detection on all ASTs and tertiary containment.

The monitoring requirements are inadequate. WVDEP should increase the frequency to monthly during startup and the first year of operation and include groundwater monitoring.

Response 64(a). See Section A. Response 11.
Response 64(b). See Section A. Response 6.
Response 64(c). See Section A. Response 1.
Response 64(d). See Section A. Response 16.

Comment 65: We have been 41-year residents of Charles Town, WV. My husband has trained and bred horses in Jefferson County during the same 41 years. We are very concerned about the short and long-term effects Rockwell will have on the horseracing industry and the animals themselves. Thus, we are commenting on the Rockwool facility's Construction Stormwater Permit (WVR108876) and Industrial Stormwater permit (WVG611896).

(a) Due to serious water quality concerns, WVDEP cannot approve these permits as they currently stand. Doing so would be reckless and irresponsible, putting the community's drinking water source, recreational waters, and the water that the equine industry depends on at serious risk.
The equine industry relies on clean ground water, sourced via individual private wells, to grow and maintain our animals. For both geographic and financial reasons, it is simply infeasible to think that our industry could use public or private utility provided water if Rockwool fouled the groundwater. There is a significant risk to the health of our animals. If the groundwater becomes contaminated, there is no way for us to know until our animals are sick. The signs are likely to be

non-specific and insidious in onset, it may be difficult to determine the cause requiring extensive veterinary intervention. Since Rockwool is not required to test ground water for contamination, it may become necessary for horsemen to periodically test the water to determine if it is contaminated. This will be difficult, because we are unsure what to test for since the contents of Rockwool's materials is undisclosed.

Rockwool must bear the cost of mitigating its risk to the groundwater. The veterinary cost and water-monitoring cost would put an undue burden on our businesses. Rockwool should bear this burden, as it is Rockwool's business activities that are posing this risk to the water. Rockwool should be required to pay for monitoring the groundwater frequently for contamination. Rockwool poses a serious risk to our industry and means of making a living due to its real and probable risk of contaminating the groundwater of Jefferson County.

The equine industry in Jefferson County provides thousands of jobs and according to an economic impact study, over $190M in business volume and over $12M in taxes in Jefferson County alone. DEP should take seriously its responsibility to protect the natural resources necessary to support such a vital industry.

WVDEP must not approve these permits and require individual permits for the Rockwool facility to implement additional measures to mitigate risks and protect groundwater resources and existing industry.

Specific concerns for each permit include:
(b) Industrial Stormwater permit (WVG611896)
The inaccuracies present in the application and response call into question Rockwool's character, competence, and ability to hold a permit and operate in accordance with laws and regulations
Due to the increased risks to groundwater, WVDEP must require enhanced spill prevention and response measures, including increased size of secondary containment on Aboveground Storage Tanks (ASTs), leak detection on all ASTs and tertiary containment.

The monitoring requirements are inadequate. WVDEP should increase the frequency to at least monthly checks during startup and operation and must include groundwater monitoring.

(c) The facility should be classified with a Substantial Harm Determination because the facility is located at a distance such that discharge from the facility would shut down a public water supply.
Construction Stormwater Permit (WVR108876)

Response 65(a). See Section A. Response 2.
Response 65(b). See Section A. Response 18.
Response 65(c). See Section A. Response 16.

Comment 66: Thank you for the opportunity to comment on this gravely concerning issue.

I am a resident of Jefferson County, the health and wellbeing of which is being threatened by the construction and potential operation of the Rockwool facility.

(a) As you well know, the project is located in the most sinkhole-prone area in the County, and the company (Rockwool) has already had difficulty and a lax approach to mitigating sinkhole issues on the site. As you well know, the Great Valley is an ancient seabed of limestone, with karst terrain, where the porous substrate potentially allows widespread contamination of groundwater (dispersion dye testing has shown this to be the case).

(b) Some facts: The depth to groundwater is only around 60 feet. At least seventeen sinkholes have been identified at the site. There is an underground stream that flows directly under the site of the facility that is connected to an old quarry which serves as recreational waters for the public; It is located a mere 1,500 feet from the wellhead protection areas for the elementary school and residential areas nearby. Surely the DEP can see the potential for severe damage in the case of a leak or spill from unidentified (listed as confidential) chemicals stored on site in 13 above-ground tanks. In the case of a spill the community would not know to what they had been exposed. Wells and groundwater could be contaminated in a very short period of time.

The Stormwater Permits (Construction, WVR108876) and (Industrial, WVG611896) do not begin to adequately protect the residents and the environment.

(c) WVR108876 was issued in 2017, and Rockwool has already been cited for failing to report sinkholes. They have also failed to properly mitigate sinkholes in an expedient manner. They must be required to perform dye testing to determine the possibility of groundwater contamination, and to report drop-outs and sinkholes to the spill notification hotline. The receiving streams for runoff are not properly identified, and this must be clarified.

(d) WVG611896: The Rockwool facility should be classified with a Substantial Harm Determination; a spill would shut down a public water supply. WVDEP should require enhanced protections that adequately address the size of containment measures and leak detections. Monitoring by WVDEP should be monthly WVDEP should also review the Material Data Sheets to understand what they need to monitor for, and possibly what needs to be mitigated.

We are a residential, educational, commercial, agricultural, equestrian, historic, visitor-destination, and creative community. We have had no heavy industry, up until this project. Polluting the groundwater with toxic chemicals would effectively end the health, livelihood, and character of the county. The only thing that would be able to prosper would be the Rockwool plant.

The state of WV has failed its citizens repeatedly in the area of protecting our vital waters. Regulations for identifying and classifying levels of threat and damage to watersheds and streams have been weakened to exclude science. The streams and watersheds of many counties have been poisoned by the extractive industries, often without mitigation. People, animals, and the environment have suffered.

Here is an opportunity to prevent a catastrophe by stepping in and forcing polluting industry to comply with environmentally responsible rules and permits.

Response 66(a). See Section A. Responses 3 & 4.
Response 66(b). See Section A. Response 21
Response 66(c). See Section A. Response 4.
Response 66(d). See Section A. Response 16.

Comment 67: I am writing regarding Rockwool's application for a Construction Stormwater Permit (WVG611896).

Rockwool's Structural Sinkhole Repair Procedure is woefully inadequate. The procedure allows for up to 24 hours to pass before a sinkhole is reported and up to 3 days to protect the feature from receiving runoff. This lax approach could result in groundwater contamination. Sinkholes should be reported and repaired immediately. Additionally, sinkholes or dropouts encountered during construction must be reported to the spill notification hotline. WVDEP should require dye testing on sinkholes not immediately mitigated to ensure there is no direct connection to a drinking water source or recreational waters.

These matters are of dire importance considering the extremely close proximity of the facility to the wellhead protection areas for a nearby elementary school and a residential neighborhood in Karst terrain which increases the risks for drinking water contamination.

Response 67. See Section A. Responses 21

Comment 68: (a) I live on well water- as do many residents of Jefferson County. I'm concerned that underground water is not being protected as construction continues due to sinkholes not being handled properly.

(b) I am concerned about the long-term stability of the soil they are building on. Given the classified and toxic nature of their materials- I don't think this location is suitable to store, use, or dispose of chemicals given the sinkholes, groundwater, and effects on community members if anything were to go wrong.

Response 68(a). See Section A. Response 4.
Response 68(b). See Section A. Response 19.

Comment 69:
I am commenting on the Rockwool facility's Construction Stormwater Permit (WVR108876) and Industrial Stormwater permit (WVG611896). Please do not approve/extend Rockwool's permits.

(a) There are serious water quality concerns. I live less than 1.5 miles from Rockwool's proposed giant factory. We rely on our well water. We and our many neighbors can't afford to lose use of our groundwater. Please do not put our community's drinking water source and recreational waters at risk.

Unfortunately, Rockwool Ranson has already been permitted to air release more EPA registered toxic chemicals than ALL the current industry in Berkeley and Jefferson Counties combined.

Many of those air released toxic chemicals will fall out and slowly build up on/in our soil and eventually get into our groundwater. Please don't also enable Rockwool's most toxic binder and other hazards to leach directly into our groundwater via its unacceptable water reuse ponds and retention pond(s). I say most toxic binder because even Inwood's Knauf Insulation Fiberglass Insulation Batting's binder is "environmentally friendly" compared to Rockwool's formaldehyde heavy binder. Rockwool's cooling process water that isn't steamed up the stack, which is contaminated with the toxic binder, will be sent to the reuse ponds. The reuse ponds as proposed will fail and/or overflow. Please don't permit them.

I'd also like to submit some email statements made by or to City of Ranson officials in July 2018 (the emails were received from FOIA requests to the City of Ranson):

On Thursday, July 26, 2018, Assistant City Manager Edward W. Erfurt IV emailed City Manager Andy Blake about Greenway Engineering's concerns stating, "They see some issues with the northern tract such as access and Rockwool stormwater outfall."

On Tuesday, July 24, 2018, Toole Design Group P.E. Melany Alliston-Brick emailed Matt Pipenburg and Edward Erfurt about big-picture concerns regarding Rockwool and Rockwool Boulevard. Some of the major items stated include:

(b) "Drainage Design: The drainage design does not comply with DOH detention requirements as outlined in Chapter 9 of the drainage manual." Further down: "It should also be noted that the natural drainage pattern will direct the water toward residential properties to the north. These properties are outside Ranson City Limits. In addition, if uncontrolled drainage results in flooding on adjacent properties, this could result in undesirable consequences up to and including legal action by an impacted property owner."

(c) - "Stormwater Management Design: The drainage report states that the design meets the water quality requirements, however it appears that the designer has based the treatment volume on the entire width of the median, instead of the area underlain by the bioretention soils. As such, there is a shortfall in treatment volume. This needs to be remedied so that DEP can issue a permit."

Needless to say, Ranson officials and engineers knew about major drainage and stormwater management problems with the Rockwool development well over a year ago. There have been many issues since then, including property flooding and 17 sinkholes! The Rockwool Development has already been careless and reckless. Please don't allow this problematic Rockwool development to continue.

Please require individual permits for the Rockwool facility to implement additional measures to mitigate risks, protect our groundwater resources, and protect the many neighboring properties.

Response 69(a). See Section A. Responses 1 & 3
Response 69(b). The drainage design has been reviewed and this design complies with terms and conditions of this General Permit.

Response 69(c). The discharge from each evaluation point has been calculated to show that post-development peak discharge from a 1-year, 24-hour storm is less than that of the pre-construction peak discharge therefore the proposed controls are appropriate.

Comment 70:
Construction Stormwater Permit (WVR108876)

(a) There are discrepancies in the application on the receiving stream. The online application lists Rockymarsh Run as the receiving stream; however, the Stormwater Pollution Prevention Plan/Groundwater Protection Plan lists the receiving streams as tributaries of Shaw Run and Opequon Creek. This discrepancy needs to be resolved.

(b)This permit was granted in 2017; however, the applicant has already received a Notice of Violation (NOV) for failing to report sinkholes. This non-compliance is unacceptable and puts public health at risk. Rockwool must be fined for any additional NOVs to deter future non-compliance.

(c)Rockwool's Structural Sinkhole Repair Procedure is woefully inadequate. The procedure allows for up to 24 hours to pass before a sinkhole is reported and up to 3 days to protect the feature from receiving runoff. This lax approach could result in groundwater contamination. Sinkholes should be reported and repaired immediately.

(d) Sinkholes or dropouts encountered during construction must be reported to the spill notification hotline. WVDEP should require dye testing on sinkholes not immediately mitigated to ensure there is no direct connection to a drinking water source or recreational waters.

Response 70(a). See Section A. Response 6.
Response 70(b). See Section A. Response 2.
Response 70(c). Per the General Permit, the permittee shall report any noncompliance which may endanger human health or the environment immediately after becoming aware of the circumstances by using the Department's designated spill alert telephone number or by calling the Director or his representative.
Response 70(d). Noncompliance which may endanger human health or the environment is required to be reported to the spill notification hotline.

Comment 71: Permit WVG 611896 should be denied due to ground water contamination that is likely to occur due to the Karst geologic conditions and presence of sink holes.

Response 71. See Section A. Responses 1

Comment 72: While I live in Charleston, I have been long aware of the widespread opposition to this industrial development in Jefferson County. It is one of your few growing counties - both in population and economy - and this is going to hurt rather than help this growth.

There are serious water quality concerns. WVDEP cannot approve these permits as they currently stand; this would recklessly and irresponsibly put the community's drinking water source and recreational waters at risk. WVDEP also must require individual permits for the Rockwool facility with additional measures to mitigate risks and protect groundwater resources.

Response 72. See Section A. Responses 2

Comment 73: I have vacationed in WV for many years, enjoying the beautiful natural environment and water sports in and near Jefferson County. I also enjoy visiting the local farmers markets in Shepherdstown and Charles Town, purchasing and eating the healthy fresh produce and farm products. I am now very wary about continuing vacationing in WV and supporting local agriculture due to the potential environmental and health effects from the emissions from the Rockwell plant.

I am not a scientist or expert in geology, but can imagine that these toxins would spill into Virginia wine country as well, another area of concern for me as a favorite pastime on the weekends is to tour the vineyards in northern Virginia.

Please take these concerns seriously from those of us who enjoy visiting the area and worry about the health effects the Rockwell plant will have on many aspects of the local community.

Response 73. See Section A. Response 2.

Comment 74: I am not a scientist or expert in geology, but can imagine that these toxins would spill into Virginia wine country as well, another area of concern for me as a favorite pastime on the weekends is to tour the vineyards in northern Virginia.

Response 74. See Section A. Response 2.

Comment 75: Rockwool should be DENIED these permits. Period. I have worked for the US Department of Justice Environmental Crimes Section since 1990. I am all too familiar with companies like Rockwool that will cut corners and ignore regulations for years and years, while local communities suffer profound damage. Notices of Violation have **already** been filed and this company is not yet operational. That alone is cause for concern.

PLEASE do not approve these permits. The DEP will be making a grave error endorsing Rockwool's actions in this community. The impact on drinking water will be irreversible.

Response 75. See Section A. Response 2.

Comment 76: (a) I am writing to express my concern about the Rockwool facility and their pending application for the above permits. Given the karst terrain and the consequential high number of sinkholes recorded to date, the location of Rockwool's facility poses an enormous threat not only to our local water supply, which is frankly unacceptable, but also to recreational waters that are integral to the tourist industry on which we depend. Approving the above permits puts our community at great risk.

(b) Rockwool has already received a notice of violation for failing to report the sinkholes. Any further violations should incur a steep fine to deter such practices. In addition to their failure to report the sinkholes, Rockwool's inadequate sinkhole repair procedure is highly likely to lead to further groundwater contamination in part because of delayed response.

(c) If Rockwool, as is likely, suffers unforeseen discharge, it would shut down a public water supply. We should require higher standards of monitoring and preventing potential spills and a more efficient response to them.

(d) I have learned the data sheets of materials to be used at Rockwool are listed as confidential. This is unacceptable. The public has a right to be informed of all materials, potential pollutants used at the facility. I appreciate your factoring in these important points prior to considering the aforementioned permits. Thank you.

Response 76(a). See Section A. Responses 19
Response 76(b). See Section A. Response 2.
Response 76(c). See Section A. Response 3.
Response 76(d). See Section A. Response 18

Comment 77: Recently I traveled to Shepherdstown, WV and I have to say it is one of the most beautiful and welcoming towns in West Virginia. As I understand it, this part of the state also provides much economic relief to the rest of West Virginia through its tourism and support for home-grown local businesses. When I visited, there were hardly any yards or businesses that did not sport a "No to Rockwool" sign either in the yard or window. Before this I had not even heard of the Rockwool plant and given that I am a West Virginian, though at the other end of the state, I felt this was rather unfortunate. This proposed plant will affect all of us downstream in the form of yet another cause of pollution being added to our already burdened water sources as well as a deleterious economic impact, given the eastern panhandle's economy is largely dependent on maintaining a pristine local environment.
(a) The proposed site will sit on an area that is known for sinkholes. Experts have found an underground stream that runs just beneath. Given the mercurial nature of sinkholes it would verge on pure stupidity to allow a plant with toxic chemicals to be built here as this puts the groundwaters at extreme risk.
(b) This underground stream connects to two different recreational ponds. If a leak were to occur, the chemicals could come into contact with those using the ponds.
(c) This proposed facility would be located within the regulated borders of protection of a wellhead for a residential area as well as a local elementary school.

Response 77 (a) See Section A. Responses 3 & 4.
Response 77 (b) See Section A. Responses 1.
Response 77 (c) See Section A. Responses 21

Comment 78: This facility and its retention ponds are wildly inappropriate on karst terrain in the heart of Jefferson County, putting the county's drinking water supply at risk. Please do not approve these permits as they currently stand.

I would refer you to West Virginia Rivers Coalition analysis with the specific concerns for each permit, included below.

Response 78. See Section A. Responses 3 & 4.

Comment 79: I submit the following comments on Construction Stormwater Permit (WVR108876) and Industrial Stormwater Permit (WVG611896):

The WV Dept. of Environmental Protection should reject permits WVR108876 and WVG611896 on the basis that our water resources will be unduly and significantly endangered by the construction of this plant.

(a) The close proximity of the site (1500') to an elementary school wellhead protection and a residential neighborhood is problematic, should tainted runoff enter the karst terrain and taint the underground water and/or the nearby citizens. Similarly, a mapped underground stream connects the site to 2 nearby abandoned quarries that are used for recreation. Contamination entering this underground stream would have disastrous consequences on humans, as well as aquatic life and wildlife. The proposed timeline for notification of the nearby citizens and for beginning cleanup for spills is shockingly long: up to 24 hours before a sinkhole is reported, and up to 3 days to protect the waterway from runoff - significant damage to property and health can occur within this very long window of time.

(b) The DEP should insist on a Substantial Harm Determination because of the proximity of the facility to a public water supply. The risk to the nearby population is significant. The DEP should require enhanced spill prevention and response measures, also due to the close proximity to citizens. Monitoring requirements should be increased significantly because of this proximity, in order to limit damage should leaks and spills occur.

(c) Karst terrain has been well studied and characteristics documented: Jones, W.K., 1997, Karst hydrology atlas of West Virginia. Karst Waters Institute, Charles Town, W.Va.

Response 79(a). See Section A. Response 21.
Response 79(b). See Section A. Response 16
Response 79(c). See Section A. Response 4.

Comment 80: From the West Virginia Stormwater Management & Design Guidance Manual, Appendix C: Stormwater Management in Karst Areas:

(a) "The effect of land development on karst terrain is an inexact science. Karst geology is very complex and difficult to analyze due to the highly variable subsurface conditions. Even a

professional analysis may not identify the potential influence of manipulating the hydrology and surface runoff patterns in areas of karst topography. However, there is increasing pressure to develop land in these sensitive areas."

The Chesapeake Stormwater Network (CSN) Technical Bulletin No. 1: Stormwater Design Guidelines for Karst Terrain in the Chesapeake Bay Watershed, Version 2.0 should be studied **in its entirety**. It outlines the hazards of construction in karst, and ways to lessen potential impact. Some excerpts:

"(T)he effects of land development on karst terrain is complex and hard to predict and requires professional analysis to reduce the risk of geological hazards, damage to infrastructure and groundwater contamination."

"(T)he working group notes that while communities that incorporate this guidance into their development review process can reduce the incidence of infrastructure damage and groundwater contamination, there is always some inherent risk when development occurs on this sensitive terrain. Consequently, the best local approach is to craft stronger comprehensive land use plans that direct new growth away from karst areas to more appropriate locations."

(b) Post Development Runoff Rates are Greatly Increased: In an undeveloped state, karst terrain produces about two-thirds less stormwater runoff than the Piedmont or Coastal plain (VA DCR, 1999). Even less runoff is produced if the site discharges into an existing sinkhole. As land is developed, however, the paved surfaces and compacted soils produce a much greater rate and volume of runoff. Three important consequences arise due to the increased runoff:
•More runoff is conveyed into a poorly defined surface drainage system that often lacks the capacity to handle it.
•More runoff greatly increases the risk of new sinkhole formation (e.g., collapse or subsidence), particularly if runoff is allowed to pond in the landscape. The increased risk for sinkholes may apply to the development site or down-gradient off-site areas.
•More runoff could deprive the karst system of recharge, thereby causing a lowering of the water table and diminished spring flows. These changes can profoundly alter the hydrology of surface streams.

Highly Variable Subsurface Conditions: Karst terrain is notorious for its spatial variability, meaning that subsurface conditions and the consequent risk of sinkhole formation can change in a matter of yards across a development site. As a result, a sequence of karst feature analyses, geotechnical investigations and borings must be performed prior to site layout and the design of any stormwater practice to minimize the risk of unintended consequences or failure. Surface/Subsurface Drainage Patterns are Poorly Understood: Drainage patterns are highly dynamic in karst terrain and involve a great deal of interaction between surface water and groundwater. Often, there is not a well-defined stream network that moves water to a downstream point. Furthermore, subsurface conduits commonly convey their flow in different directions than the overlying surface streams, in some cases crossing beneath topographical divides. Designers faces a confusing surface drainage pattern, full of losing streams, estavelles, turloughs, swallets and insurgences, which makes it hard to predict exact discharges points for runoff and groundwater

(see Section 8 for a glossary of karst terms). Designers in karst terrain need to think in three dimensions, rather than just two.

(c) Groundwater Contamination Risks: In many cases, contaminants in polluted runoff and spills can pass rapidly from the surface into groundwater in karst terrain, with little or no filtration or modification. In other cases, contaminants are “hung up” above the water table in the epikarst, releasing toxins more gradually. The strong interaction between surface runoff and groundwater poses risks to the drinking water quality upon which residents in karst terrain rely. As a result, designers need to consider groundwater protection as a first priority when they are considering how to dispose of stormwater since there is always a risk that it will end up in the groundwater system. Increased Sinkhole Formation: The increased rate of sinkhole formation caused by increased runoff from land development can cause damage to public infrastructure, roads and buildings. In addition, the existing drainage system can be further modified by land development, and larger centralized stormwater practices may fail. Consequently, designers need to carefully assess the entire stormwater conveyance and treatment system at the site to minimize the risk of sinkhole formation. In most cases, this means installing a series of small, shallow runoff reduction practices across the site, rather than using the traditional pipe-to-pond approach. Endangered Species: In some cases, development sites may have a subsurface discharge to caves, springs and surface streams that are home to legally protected rare, threatened or endangered species that merit special protection, such as cave-obligate aquatic and terrestrial invertebrates, bats and aquatic fauna in surface streams. Designers are encouraged to screen for the presence of rare, threatened or endangered species to minimize project impact to habitat and ensure the project complies with the legal protections afforded under the Endangered Species Act.

(d) Section 7: Sinkhole Remediation in Stormwater Practices Since karst terrain is so dynamic, there is always some risk that sinkholes will be created in the conveyance system or with stormwater practices. This section outlines a four-step process of sinkhole remediation, involving notification, investigation, stabilization, and final grading, which has been loosely adapted from CCDP (2007). The choice of sinkhole remediation techniques is contingent on the scope of the perceived problem, nature of contributing land uses, and the cost and availability of equipment and materials. 7.1 Sinkhole Notification The existence of a new sinkhole within a temporary erosion control practice, road right of way or stormwater management practice shall be reported to the local stormwater review authority within 24 hours or the next business day. A plan for investigation and stabilization shall be coordinated with the local review authority, and repairs shall commence immediately after receiving design approval. Until repairs are completed, a temporary berm shall be constructed to divert surface flow away from the sinkhole. Documentation of sinkhole repairs shall be certified by a registered professional engineer and submitted to the local review authority.... etc."

The above-mentioned publications should be required reading by the permitter and permittee before further consideration of these permits.

Response 80(a). See Section A. Response 19.
Response 80(b). See Section A. Response 4.
Response 80(c). See Section A. Response 3.

Response 80(d). See Section A. Response 4.

Comment 81: Construction Stormwater Permit (WVR108876). Industrial Stormwater Permit (WVG611896)

The League of Women Voters of West Virginia wishes to make a few comments about Rockwool's request for stormwater permits.

The League is concerned about the potential for the pollution of groundwater and drinking water supplies in the area where the Rockwool Plant is proposed. The area is well known for its Karst topography and an abundance of sinkholes. Thus, any pollution will not be contained and will spread widely, threatening the sources of drinking water. If Rockwool is permitted, we recommend that the DEP monitor all chemicals listed on Rockwool's confidential Material Data Sheets.

Response 81. See Section A. Response 3 & 18.

Comment 82: I am writing to Express my concern regarding permit numbers WVR108876 and WVG611896. I believe these permits do not do enough to protect our drinking water sources and streams from pollution, especially because of Karst terrain and at least *17 known sinkholes* at the site, including seven inside of Rockwool's rainwater reuse pond.

Response 82 See Section A. Responses 3 & 4.

Comment 83: **Public Comment on Roxul's Permit Registration No. WVR108876 Reissue #2 for Coverage Under the General WV/NPDES Water Pollution Control Permit No. WV0115924**

1. On July 31, 2017 Roxul applied for coverage under the General WV/NPDES Water Pollution Control Permit No. WV0115924 for the construction of their Rockwool Ran 5 Facility on 98.8 acres.

2. On October 19, 2017 the WVDEP Director approved their application under Registration No. WVR108876.

3. On October 20, 2017 (effective October 25, 2017), Roxul USA, Inc. and Jefferson Orchards enter into a Road Right-of-Way and Easement Agreement. See Jefferson County Clerk's Office then follow link at bottom of the page http://www.jeffersoncountywv.org/county-government/elected-officials/document-inquiry-system Deed Book 1197 Image 672

4. On June 21, 2019 Roxul applies for a reissue of Permit Registration No. WVR108876.

Deed Book 1197 Image 672 Section C: "Pursuant to the Purchase Agreement Orchards has agreed to grant to the State of West Virginia Department of Transportation, or another public or quasi-public authority ("collectively WVDOH") for the use as a public street and right-of-way to ROXUL and others, a perpetual and non-exclusive right-of-way and easement in favor of and

appurtenant to the ROXUL Property over and across the Orchards Property for pedestrian and vehicular ingress and egress from the ROXUL Property from that right-of-way known as Charles Town Road West Virginia State Route 115 (the Access Road).

Deed Book 1197 Image 672 Section D: Orchards further desires to grant a temporary access and construction easement to ROXUL for use of the right-of-way prior to construction of the Access Road by the WVDOH.

Deed Book 1197 Image 672 Section 2, goes on to describe the temporary construction easement granted to ROXUL and refers to Exhibit A (found on page 8), which is a plat that pictures the "Temporary Construction Easement of 5.7 acres".

Questions:

Did Roxul USA, Inc. notify the WVDEP, in 2017, of the Temporary Construction Easement granted to them by Jefferson Orchards as may have been required under 47 CSR 10 Section 9 and if so when? Did Roxul ask the WVDEP for a modification or alteration of their Registration after the Temporary Construction Easement Agreement was finalized? If not, should Roxul have asked for a modification of their permit registration in 2017?

Should the 5.7-acre parcel used by ROXUL for construction purposes be included in the LOD under Registration No. WVR108876, thus defining the LOD at 104.5 acres? If not, why?
Has Roxul used and or disturbed this 5.7-acre parcel, as noted in the Temporary Construction Easement, for access to and from the Roxul property at any time since October 2017? Why doesn't the application of June 21, 2019 include the Right-of-Way and Temporary Construction Easement of 5.7 acres?

Was the Right-of-Way and Temporary Construction Easement and Roxul's use of the 5.7 acres for construction relevant to the management of construction stormwater under Registration No. WVR108876 over the last two plus years?

Legally adding the 5.7 acre parcel in the Temporary Construction Easement (through the Road and Right-of-Way & Easement Deed) to the construction footprint of the Rockwool RAN 5 Facility project increased the Limits of Disturbance (LOD) to over 100 acres, which is a material and substantial alteration and addition to the permitted facility that is absent from the existing permit.

This alteration and addition of the 5.7 acres to the LOD was and is cause for modification of the permit and a new draft should have been prepared as required under 47 CSR 10, Section 9.2.b in accordance with Section 10 and the public notice procedures of Section 12. This information of an alteration should have been reported to the WVDEP immediately after the Road Right-of-Way and Easement Agreement was finalized on October 25, 2017.

Not disclosing information and the relevant fact of increasing the LOD, to the WVDEP is a cause for the Director to consider revoking the permit registration under 9.4.a.2. Not requesting a permit registration modification after the Temporary Construction Easement was legally agreed to denied

the WVDEP the opportunity to evaluate the whole of the project for complete stormwater management and denied the public to provide relevant information, through public comment to the WVDEP, in 2017, about karst, sinkhole concentration and protecting groundwater in ways that are specific to Jefferson County.

Reissue #2 Permit Registration No. WVR108876 should be denied because it still does not account for the land (5.7 acres) used for construction referred to in the Temporary Construction Easement within the Road Right-of-Way and Easement. Roxul USA, Inc should be required to apply for a new permit registration because they have not yet provided all relevant information.

Response 83. See Section A. Response 10.

Comment 84: I live near the Rockwool site in Jefferson County - so close I hear the construction noise all day - and am very concerned about the potential for groundwater pollution. Like many people and farms in the area, I depend on well water and the karst geology is permeable to underground flows. There are also numerous sinkholes on the construction site and the potential for more to be discovered as they are common here including on my 10 acres. The chemicals used in rock wool production and in the production wastewater thus present a huge risk of contamination from a spill that may be impossible to clean up, permanently contaminating the local groundwater. Let's please not have another Minden, WV here in Jefferson County.

Response 84. See Section A. Responses 3 & 4.

Comment 85: I oppose granting these permits to a foreign company in West Virginia. We cannot risk polluting the waters that feed into our rivers and ultimately the Chesapeake Bay. Climate Change will increase the possibility of overruns during storm surges. Allowing Rockwool into our community is a bad idea.

Response 85 See Section A. Response 2.

Comment 86: I am commenting on the Rockwool facility's Construction Stormwater Permit (WVR108876) and Industrial Stormwater permit (WVG611896).

I am a retired science teacher. I spent thirty-one years teaching Biology, Environmental Earth Science and Wildlife Management classes in the public-school systems of three states. My education was first as a Biologist, teaching came later. I have a Master of Science degree in Biology. As a biologist I am concerned with the effects our large human population is having on the sustainability of our Earth's life support systems. Although there are some impressive natural systems that help to stabilize the living environment on our planet, there are limits to how much abuse these systems can withstand. The fossil records show that in the past there have been several major disruptions of these systems. Today the biggest threat to our spaceship Earth comes from the activities of us humans. Our continued population growth combined with the crazy notion that there must always be an expanding economy is a sure-fired prescription for disaster. Misguided economic policies are in direct conflict with the natural limits of Earth. Our finite planet cannot provide unlimited resources to allow us to continue on the path we are on.

We must make decisions based on sound ecological principles if we are to bequeath our children and grandchildren with a place to live that is both sustainable and interesting. It will be a tragedy of monstrous proportions if our shortsighted way of making decisions degrades the world that our children inherent. The wonderful diversity of living creatures and wild unspoiled natural places must be preserved for them. It seems that we are unaware that the wild natural places are the ultimate infrastructure of the planet. The natural ecosystems stabilize the atmospheric gasses and maintain our freshwater systems. Our present economic systems of continued growth are nothing more than a Ponzi scheme in which our decedents will be left with nothing of value.

I am writing today to request that you help address one of the issues that will affect future generations, including our two sons and our wonderful ten-year-old granddaughter and her 2-year-old little sister. Our other son and wife have a one-year old son. Please try to throw off the short-term considerations and take action that will address the long-term welfare of humankind. The welfare of all our children is depending on us.

Due to serious water quality concerns, WVDEP cannot approve these permits as they currently stand. Doing so would be reckless and irresponsible and put the community's drinking water source and recreational waters at risk. WVDEP must require individual permits for the Rockwool facility to implement additional measures to mitigate risks and protect groundwater resources.

Response 86. See Section A. Response 2.

Comment 87: In my opinion and my experience, any industry that has unnamed chemicals in tanks that are near water sources should be forced to name the compounds and reveal any possible impact on the health of the members of the community should the tanks leak. Also, any industry with a history of violations should be barred from any further permits.

Response 87. See Section A. Response 2 and Response 18.

Comment 88: (a) I am a resident of Jefferson County. I live in a rural location between Shepherdstown and Bakerton. My only option for water is my well. I am extremely concerned about the potential for groundwater contamination due to the county's karst topography and the location of the Rockwool facility. That undisclosed chemicals will be used by Rockwool adds to my concern.

I personally believe that permitting that plant, or any industrial operation at that 'groundwater headwaters' location is irresponsible in the extreme and morally unconscionable.

The following is from the West Virginia Rivers organization and states clearly the almost universal and legitimate concerns of residents here in the county.

(b) Since the Material Data Sheets (MDS) are listed as confidential, the public has no information on pollutants used at the facility. WVDEP must review the MDS for all materials used at the facility and add those constituents to the monitoring requirements.

Response 88(a). See Section A. Responses 3, 4 & 19.
Response 88(b). See Section A. Response 18.

Comment 89: I am a resident of Shepherdstown WV and I have been closely following the controversy surrounding potential environmental and health impacts of the Rockwool heavy industry facility in Jefferson County.

(a) I was shocked to learn that Rockwool will have 13 Above Ground Storage Tanks at the facility, and the contents of these tanks are unknown, classified as "confidential." How can our local environmental managers and spill response teams prepare for an event related to unknown chemicals? (b) Why has the Rockwool facility not been classified with a "Substantial harm" determination, since it is known that discharges from Rockwool would shut down nearby public water supplies? (c)Why has background groundwater monitoring and dye flow studies not been required as a permit condition to better understand this dynamic groundwater environment?

I am alarmed that the Rockwool heavy industry facility is being sited in a fragile karst environment, posing a serious threat to our surface and groundwater resources, and that so much is still unknown about the chemicals that will be used in the manufacturing operation.

I urge WVDEP to deny approval of the Rockwool permits as written. The science is compelling you to deny these permits. Please do the right thing.

Response 89(a). See Section A. Response 18.
Response 89(b). See Section A. Response 16.
Response 89(c). See Section A. Response 20.

Comment 90: I am an architect and LEED AP and live with my family approximately half a mile from the Rockwool factory in Ranson WV. We and all our neighbors obtain our water from wells and are greatly concerned that the Rockwool factory operations will contaminate the groundwater supply, our wells and drinking water. Water for 80% of the County residents, businesses and farms comes from private wells.

The Rockwool factory will include a number of above ground ponds, including Stormwater Detention and Water Reuse Ponds. The ponds will hold stormwater runoff and waste materials from the mineral wool manufacturing process. Water quality threats from Rockwool are real and very serious. Of greatest concern and danger to the local community is the possibility that sinkholes will open up under the finished ponds, rupturing the pond's lining and seams, allowing toxic waste materials to drain into and contaminate the groundwater. Jefferson County geology consists primarily of karst (limestone) and includes large numbers of sinkholes. Karst is very susceptible to sinkhole formation. Sinkholes have direct connections to the groundwater which flows rapidly in karst. The headwaters for a number of streams are located in the vicinity of the Rockwool factory. SUMMARY: West Virginia DEP must not issue the Rockwool permit until and unless all of the technical questions are answered, as there is no possibility of assuring the safety of the

groundwater and surface water resources in the area of Rockwool's proposed plant. Please respond in writing to each of my comments.

RECOMMENDATION Because the safety of the groundwater and surface water resources depends on the design and construction of stormwater ponds, it is recommended that WV DEP require Rockwool to engage a third party independent engineering firm, expert in designing stormwater ponds in Karst terrain, to design and supervise the construction of the Stormwater ponds at their factory in Ranson WV.

Response 90. See Section A. Response 2.

Comment 91: IT IS ESSENTIAL THAT A DETAILED SITE INVESTIGATION BE MADE BEFORE LOCATING AND DESIGNING STORMWATER PONDS IN KARST TERRAIN. Chesapeake Stormwater Network (CSN) Technical Bulletin No. 1. Stormwater Design Guidelines for Karst Terrain in the Chesapeake Bay Watershed, Version 2.0 June 20019: (Page 8) "Detailed site investigations are required in the design of all building, roads, stormwater conveyance and centralized stormwater facilities proposed within karst areas. The purpose of the investigation is to develop a KARST FEATURE PLAN that identifies the location and elevation of subsurface voids, cavities, fractures and discontinuities. Presence of any of these features could pose a danger to groundwater quality, a construction hazard or an increased risk of sinkhole creation at a proposed centralized stormwater facility.

Response 91. See Section A. Responses 4.

Comment 92: IT IS RECOMMENDED THAT STORMWATER PONDS NOT BE LOCATED IN KARST TERRAIN. *Chesapeake Stormwater Network (CSN) Technical Bulletin No. 1. Stormwater Design Guidelines for Karst Terrain in the Chesapeake Bay Watershed, Version 2.0 June 20019:*

"…while communities that incorporate this guidance into their development review process can reduce the incidence of infrastructure damage and groundwater contamination, there is always some inherent risk when development occurs on this sensitive terrain. Consequently, the best local approach is to craft stronger comprehensive land use plans that direct new growth away from karst areas to more appropriate locations…" The Rockwool factory is located in an area with the following features and characteristics; Karst terrain; At the headwater of local streams; In the area with highest concentration of sinkholes in Jefferson County (D.H. and K. Doctor in "Carbonates and Evaporates", June 2012, Vol 27, Issue 2,)

The local hydrology raises the strong possibility of pollutants entering the groundwater and contaminating wells and springs. A spill, leaking sewer line or rupture of the lining of the above ground ponds could result in health and safety issues as the contaminated material moves underground rapidly. Underground contamination is very difficult to track and to clean up.

In the 1990s, a County study injected dye into a well in Bardane in the Elk Run watershed, and within less than two weeks the dye was found in Rocky Marsh Spring, which feeds Rocky March

Run, almost 8 miles away. The dye also found its way to the Morgan Spring, which feeds the Town Run; Elmwood Spring, which feeds Rattlesnake Run; and the Duffield Spring- Elk Branch. The dye moved rapidly underground over area landscape and took 25 weeks to clear from all locations. (Kozar, M. D., et al., 1990. Geohydrology, Water Availability, and Water Quality of Jefferson County, West Virginia, with Emphasis on the Carbonate Area. U.S. Geological Survey, Water-Resources Report 90-4118). The injection point for the dye is close to the location of the Rockwool factory.

Response 92. See Section A. Responses 19.

Comment 93: THE STORMWATER PONDS ARE LOCATED IN A "POTENTIAL SINKHOLE RISK" AREA. The drawing below is titled Potential Sinkhole Risk Map and shows the location of the three lagoons. The drawing notes that the lagoons are located in a "POTENTIAL SINKHOLE RISK" area. The greatest danger to the groundwater supply is from the sinkholes which have NOT YET FORMED. It is almost certain that sinkholes will form under the ponds. It is highly likely that the ponds liners will be damaged and the seams opened up due to the great stress placed on the liner and the liner joints from the weight of the liquid in the pond and the opening of the sinkhole below.

(a) According to recent Permit Application of 6/22/2019 and 7/22/2019, there are a total of 17 reported sinkholes within the site, including 5 in the Rainwater Reuse Pond, shown as S2 to S6 on the plan. Some of the sinkholes are many feet in diameter and located in the ponds.

(b) The increase of impervious surface area due to roads, parking lots and buildings will produce a much greater rate and volume of runoff. More runoff greatly increases the risk of new sinkhole formation.

(c) It is highly likely that more sinkholes will be formed, caused by the excavation, blasting and pile driving required to construct the foundations of the smokestacks and the heavy equipment required to build the smokestacks.

(d) Rockwool drawings show the lagoons located in a "potential sinkhole risk" area. The drawings do not show how the risk from sinkholes is to be mitigated.

Response 93(a). See Section A. Responses 4.
Response 93(b). See Section A. Responses 14.
Response 93(c). See Section A. Responses 4.
Response 93(d). See Section A. Responses 4.

Comment 94: INTERGRATED ENVIRONMENTAL PLAN, RAN 5 FACILITY - POND LINER SYSTEM DETAIL, SHEETS 1, & 2, DATED 05/09/2019
The following comments are on the Pond Liner System Detail Drawings and Notes in Rockwool's' Integrated Environmental Plan:

- Cross Section C-1 shows one-layer Geomembrane liner, but does not indicated the type of Geomembrane material or thickness of the material.

- Cross Section C-1; Notes 2-5, show a Compacted Borrow Clay Layer of 4 inches thick. Table 6 from the CSN Technical Bulletin recommends 24 inches of soil or clay, depending on the depth to bedrock.
- Note 2 indicate Borrow Soil requirements which vary from the information shown in Table 6.
- Note 3 states "making several passes on vibratory mode". The compaction of the soil under the liner is not recommended and can lead to the formation of new sinkholes
- The Notes state that the contractor or material installer shall be responsible for the installation. Because of the critical nature of the pond liners in preventing groundwater contamination, it is highly recommended that an independent Quality Assurance program be implemented to ensure the lagoons are constructed as designed in the construction documents.
- The Stormwater Design Guideline notes that 60 mil is the minimum thickness for liners. Because of the critical part the liners play in preventing groundwater contamination, the minimum should not be the standard that is used.
- The drawings do not show a leak detection system installed under the pond liner. It is critically important that leaks in the liner be detected as soon as possible so that remediation action can be taken as quickly as possible due to the high probability that the on-site construction activity will cause new sinkholes to be formed, it is recommended that the lagoons be built after the completion of all other on-site construction.

Table 6. Required Groundwater Protection Liners for Ponds in Karst Terrain (WVDEP, 2006 and VA DCR, 1999) Pond Excavated at least Three Feet Above Bedrock 24 inches of soil with maximum hydraulic conductivity of 1 x 10-5 cm/sec Pond Excavated within Three Feet of Bedrock 24 inches of clay1 with maximum hydraulic conductivity of 1 x 10-6 cm/sec Pond Excavated Near Bedrock within wellhead protection area, in recharge area for domestic well or spring, or in area with high fracture density or significant geophysical anomalies. Synthetic liner with a minimum thickness of 60 ml.1 Clay properties as follows:

Plasticity Index of Clay: Not less than 15% (ASTM D-423/424)
Liquid Limit of Clay: Not less than 30% (ASTM D-2216)
Clay Particles Passing: Not less than 30% (ASTM D-422)
Clay Compaction: 95% of standard proctor density (ASTM D-2216)

Response 94. See Section A. Response 9.

Comment 95: RECOMMEDEND CHANGES TO ROCKWOOL'S STORMWATER POND DESIGN. James T. Wells, PhD, PG is an environmental geologist with 20 years of experience in hydrogeology and geochemistry and is a Professional Geologist, registered by the State of California. Dr. Wells is the Chief Operating Officer of L. Everett & Associates. He earned a BA in Earth Sciences from Dartmouth College and MS and PhD degrees in Geological Sciences from the University of Washington. He serves on the editorial board of the academic journal, Environmental Forensics. His area of expertise includes groundwater hydrology, environmental forensics and fate and transport of contamination in soil and groundwater.

Below are the recommendations from Dr. Wells detailing the best way to protect groundwater from contamination caused by leaks and the failure of the stormwater ponds.

"Mr. Perry, We reviewed your write-up about the planned stormwater and waste lagoons at the proposed Rockwool plant in Ranson, WV. My colleague, Dr. Lorne Everett has done a lot of work over the years designing vadose zone and groundwater monitoring systems for all sorts of waste facilities like landfills and land treatment units. We recognize that one of the challenges at this site will be that it's probably not feasible to design a groundwater monitoring network since the karst geology makes it very difficult to understand where releases into the aquifer would go. We are also not aware of any way to specifically monitor for sinkholes under the lagoons, once they are constructed.

One level of protection that is employed at hazardous waste sites and other types of landfills is:

- INSTALL TWO LINER SYSTEMS WITH A LIQUID DETECTION SYSTEM BETWEEN THE LAYERS. This might consist of a sand layer with perforated pipe (like a French drain) all leading to a centralized sump. Something like that might work at this site"

Additional recommendations include the following:

- INSTALL MONITORING WELLS TO REGULARLY TEST THE GROUNDWATER FOR CONTAMINATION
- ESTABLISH THE ACTIONS TO BE TAKEN WHEN GROUNDWATER CONTAMINATION IS DETECTED.

Response 95. See Section A. Response 9.

Comment 96: ROCKWOOL'S STORMWATER PONDS ARE NOT DESIGNED IN ACCORDANCE WITH THE DESIGN PRINCIPLES DETAILED BELOW STORMWATER DESIGN PRINCIPLES FOR KARST
Chesapeake Stormwater Network (CSN) Technical Bulletin No. 1. Stormwater Design Guidelines for Karst Terrain in the Chesapeake Bay Watershed, Version 2.0 June 20019: Page 17

- Treat runoff as sheet flow in a series of small runoff reduction practices before it becomes concentrated. Practices should be designed to disperse flows over the broadest area possible to avoid ponding, concentration, or soil saturation.
- Small-scale low impact design (LID) practices work well in karst areas, although they should be shallow and sometimes use perforated under drains to prevent groundwater interaction. For example, micro-bioretention and infiltration practices are a key part of the treatment train.
- Distributed treatment is recommended over centralized stormwater facilities, which are defined as any practice that treats runoff from a contributing drainage area greater than 20,000 square feet IC, and/or has a surface ponding depth greater than three feet. Examples include wet ponds, dry extended detention (ED) ponds, and infiltration basins.
- The use of centralized stormwater practices with large drainage areas is strongly discouraged even when liners are used. Centralized treatment practices require more costly

geotechnical investigations and design features than smaller, shallower distributed LID practices. In addition, distributed LID practices generally eliminate the need to obtain an underground injection permit

- Designers should refer to the list of preferred and acceptable stormwater practices as outlined in Table 3.
- Designers must address both the flooding and water quality aspects of post development stormwater runoff. In most localities, the sequence of stormwater practices should have the capacity to safely handle or bypass the 2- and 10- year design storm, following the methods outlined in Section 5.4.
- Designers should maintain both the quality and quantity of runoff to predevelopment levels and minimize rerouting of stormwater from existing drainage.

Response 96. See Section A. Response 5.

Comment 97: WHO WILL MONITOR THE GROUNDWATER TO DETECT GROUND WATER CONTAMINATION? On Page 69 of the WVDEP stormwater management guidance document it states: "Monitoring wells and groundwater sampling may be required by the Director for the assessment of the potential for or existence of groundwater contamination…"
It is recommended that the Director use the existing authority noted above to require Rockwool to install groundwater monitoring wells along its property boundaries, especially northeast and northwest from the two Stormwater Outlets, as these are the directions towards existing surface water receptors at The Compound: Historic Nature Preserve Park (recharged by groundwater) and the drinking water wells at residences along Warm Springs Road, Granny Smith Lane, Good Folks Road, Stubbs Road, Americana Lane and Vista Lane. Title 47 Legislative Rules, Division Of Environmental Protection, Office Of Water Resources, Series 58, Groundwater Protection Rule, 47 CSR 58 4.9C; "New facilities shall monitor groundwater upon order of the director if the director reasonably believes that an industrial establishment or activity has the potential to contaminate groundwater".

Response 97. See Section A. Responses 20.

Comment 98: WHAT ACTION WILL BE TAKEN BY ROCKWOOL WHEN THE CONTAMINATION OF THE GROUNDWATER IS DETECTED? WHO HAS LEGAL LIABILITY AND FINANCIAL RESPONSIBILITY IF THE GROUNDWATER IS CONTAMINATED BY ROCKWOOL?
The NPDES permits that if not amended, will transfer all liability for any past, present and future pollution from Roxul/Rockwool to the taxpayers of Jefferson County. Here is the official NPDES permit and liability transfer form that WVDEP requires on ownership transfer.
Note that there are only two options: New Owner (Jefferson County) accepts all liability, past, present, and future; and New Owner (Jefferson County) does not accept liability for past issues, and must DELINEATE in a detailed addendum, those environmental conditions they are willing to accept at the current time and in the future. Only those items that are specifically called out in the Addendum can be made to fall back to Roxul/Rockwool. If it is not called out, then it WILL be a Jefferson County liability.
https://dep.wv.gov/WWE/permit/general/Documents/Transfer%20GP%20form.pdf

Response 98. See Section A. Response 2.

Comment 99: **WHO WILL COMPENSATES PROPERTY OWNERS AND BUSINESSES FOR THE CONTAMINATION OF THE GROUNDWATER.?**
Farmers need special protection against contamination of the water supply used to feed their animals. The Market Facilitation Program (MFP) designed to help farmers who are being hurt in the tariff war pays the farmers upfront for their losses so that the farmers can stay in business rather than waiting for the legal wrangling to be completed. The same needs to be true for the liability process. Water pollution from spills at the Rockwool installation that cows drink and comes out in their milk could make the milk and the cow unsellable. The farmer would be facing a complete loss of income and the added expense of killing and removing the cow (~$300 per head). To protect framers there needs to be an escrow account that pays the farmer when the claim is filed just like the MFP. Rockwool will be protected because if a false or excessive claim is filed, they can sue the farmer and then reclaim their money after the legal process has taken its course if they win. The same is true for farmers who raise livestock for meat if the meat is tainted by a spill. They need to be compensated as soon as the complaint is filed. If the spill is detected earlier enough to avoid contamination of the milk and meat. The farmers need to be compensated for buying 30 gallons of fresh water per day per head of cattle. For most farmers this will require truckloads of water every day. Compensation for sheep and goats needs be for 5 gallons per day per head, horses require 10 gallons per day. Compensation needs to include water purchase, and hauling costs These water pollution events may result from poor design and poor design practices –
- Building lagoons on ground where sinkholes may form.
- Catastrophic breaks in tanks, pumps, values and piping, design flaws like filling a sinkhole with concrete (which at one time was recommended, has now been long recommended against because the evidence is that this makes the sinkhole reemerge faster).

Response 99. See Section A. Responses 2.

Comment 100: AT THE END OF THE LIFE OF THE FACTORY WHO WILL BE LEGALLY AND FINANCIALLY RESPONSIBLE FOR THE ENVIRONMNETAL RESTORATION OF GROUNDWATER AND DRINKING WELLS CAUSED BY CONTAMINATION FROM ROCKWOOL'S STORMWATER PONDS?

Response 100. See Section A. Responses 2.

Comment 101: As a taxpayer and resident of Jefferson County, I express my concern for the threat Rockwool presents to the children, water, and land in Jefferson County and, in truth, beyond Jefferson County. Please deny the permits.

Response 101. See Section A. Responses 2.

Comment 102: I have lived in Jefferson County, West Virginia, since 1962.
I am writing about two proposed permits for the misguided construction project Rockwool.

The two permits are #WVR 108876, construction storm water permit, that regulates storm water runoff during construction and #WVG611896, that regulates permanent storm water management following completion of the facility.

In 1986, the Conservation Fund, Spring and Groundwater Institute, bought 28 acres beside my mother's home. Their main project was to use and recycle water from Falling Spring. The stream water was directed into tanks to raise fish; the used water was cleaned up and released back into the springs, flowing into the Potomac River. The Fund was adamant that no construction was allowed on the surrounding land, because of fears that groundwater would become polluted. (some years later, the Conservation Fund did sell off some land, and a house and barn were built, but by that time, the Fund had moved to another area of Jefferson County)

Two years ago, I was diagnosed with two serious health problems relating to contaminated water; I have a well. No one could tell me how my well water became contaminated without a lot of testing, which I could not afford to undertake. Now I have to drink bottled water.

Morgan's Grove Park is near my home; Falling Spring stream, which runs through the park was found to have e coli, etc. several years ago. Are my well and the stream connected? One has to wonder if my well and the stream are connected deep down underground; did the polluted stream effect my well water?

To quote from IAH Commission on Karst Hydrogeology; "Experience shows that many hydrogeologists mistakenly assume that if karst landforms are absent, or not obvious on the surface, then the groundwater system will not be karstic. THIS ASSUMPTION CAN LEAD TO SERIOUS ERRORS IN GROUNDWATER MANAGEMENT AND ENVIRONMENTAL IMPACT ASSESSMENT because groundwater circulation can develop even though surface karst is not apparent. " Jefferson County has karst topography.

It would be cavalier of the state to allow a business that could so potentially damage/pollute our streams; Jefferson County is part of the Chesapeake Bay Watershed because our streams flow into the Potomac and Shenandoah Rivers.

My point in writing about my well, and a nearby stream is that anything dumped on the ground, whether during construction or afterwards, will pollute Jefferson County's underground water system.
My own experiences justify my concerns about Rockwool/permits; no permits should be issued to the company. With all the precautions, things can still go wrong- our water is too precious to even think of permitting any activity that can pollute our underground water, streams and rivers.

I do not trust Rockwool to be a good caretaker of Jefferson County's land and streams; please do not issue any permits to that company.

Response 102. See Section A. Response 2

Comment 103: My wife and I are submitting comments together on the Subject Permits and request that you give them full consideration as two commenters and reply to our comments in writing.

If you attended the hearing in Shepherdstown on Wednesday, October 23, 2019 then you heard over 60 citizens comment against the permits and one employee, paid by Rockwool and the WV Manufacturers Association, speak in favor of the permits. If you weren't there, I implore you to listen to the recordings, read the transcripts and speak to the DEP employees that were there. The comments made by the citizens were by and large fact based, with those facts coming from thousands of hours of research. Research performed by people well qualified with applicable degrees and or experience. I respectfully submit their testimony in addition to my comments.

(a) The locating of the Rockwool plant in Jefferson County is a disaster waiting to happen. If the DEP continues to issue permits for Rockwool your agency will be as culpable, or even more so, than Rockwool for the damages that will occur to our air, water, land and economy. These latest permits show a continued lack of competency and actions that build confidence. The WV DEP should hold an evidentiary hearing in Jefferson County immediately and should not only NOT approve these two permits but should revoke the Permit to Construct as well. Governor Justice promised to have the DEP hold a hearing about Rockwool's air permit immediately. The DEP should take steps at once to arrange to have this hearing. In support of the hearing the DEP should provide the materials that Jefferson County Foundation requested in their FOIA to the DEP in September.

(b) Jefferson County is riddled with Karst geology that is prone to sinkholes. Sinkholes allow any contaminants present to readily enter into the aquifer and that aquifer supplies water to 80 percent of the citizens of Jefferson County. Formation of sinkholes is not a theoretical threat. Rockwool received a Notice of Violation for failure to report sinkholes. Rockwool's sinkhole repair procedure is inadequate. It allows too much time for reporting and protecting the feature from receiving runoff. There are already 17 sinkholes on the site that have been reported and five of them are under a retaining pond. These ponds will retain material from the manufacturing process. If the sinkholes cause the liners to rip millions of gallons of contaminated water will enter into our aquifer. I do not think there is any remediation possible to correct this problem and the risk to our drinking water is not worth taking. I quote below form the *Chesapeake Stormwater Network (CSN) Technical Bulletin No. 1. Stormwater Design Guidelines for Karst Terrain in the Chesapeake Bay Watershed, Version 2.0 June 20019: "...while communities that incorporate this guidance into their development review process can reduce the incidence of infrastructure damage and groundwater contamination, there is always some inherent risk when development occurs on this sensitive terrain.* Consequently, the best local approach is to craft stronger comprehensive land use plans that direct new growth away from karst areas to more appropriate locations..."Page *3.*

The DEP should have directed Rockwool away from Jefferson County at the initial "Operation Shuttle" meeting that brought Rockwool to Jefferson County. You can rectify your wrong by denying these permits now until Rockwool, via an independent third-party engineering firm (Not ERM or

Thrasher) can attest that all necessary technical work has been done and proper plans have been made and are being *adhered* to.

(c) In addition to the ponds that will leak into the karst there is the question of what other materials or chemicals will be present at the site. There are 13 storage tanks for chemicals planned and Rockwool labels their contents proprietary. The DEP should not approve any permits until Rockwool identifies what these tanks will hold, the safeguards are evaluated, again by a third party, and the risks to the aquifer and land are evaluated.

(d) The Rockwool plant is located near the headwaters of three streams and is located in the most sinkhole prone area of Jefferson County. Considering the high risk of pond liner failures and contamination of the aquifer; the unknown chemicals that could add to the pollution and Rockwool's cavalier approach to the permitting process, the Rockwool facility should be classified with a Substantial Harm Determination because the facility is located at a distance such that discharge from the facility would shut down a public water supply.

(e) The Director of the DEP was quoted by the Charleston Gazette-Mail as saying that "It isn't my job to tell people what to do. My job is to sell West Virginia." While the misguided political head of the department might describe his job as such, we firmly believe that the staff and experts of the DEP do not feel the same way, but rather want to do what is best for the environment of West Virginia. Please listen to our voices; respect the research that we have done to aid you in your duties and deny these permits. Schedule the hearing for the Air Permit and an evidentiary hearing for these two permits. All should occur in Jefferson County.

Response 103(a). See Section A. Response 15.
Response 103(b). See Section A. Responses 3, 4 & 19
Response 103(c). See Section A. Response 18.
Response 103(d). See Section A. Response 16.
Response 103(e). See Section A. Response 2.

Comment 104: (a) Rockwool representative have refused to provide a hard copy of the plumbing plans in response to the written request from the Charles Town City Council (Council). Rockwool has only agreed to allow the members of the Council to view the plans. The Council wants to have a third-party expert review the plans. The plans should include technical drawings showing the system of piping for fresh water going into the building and waste going out, both solid and liquid. It also needs to include fuel gas drawings.

(b) The Rockwool factory is being built on sinkholes. The rainwater reuse pond has SEVEN sinkholes inside of it. The stormwater management pond #1 has THREE. Despite the Department of Environmental Protection approved sinkhole remediation document and controls that include lining these ponds to prevent infiltration, this level and type of activity simply should not happen over karst. As of June, there were at least 17 sinkholes on the site.

(c) A Rockwool factory would use the process of reverse osmosis (RO). Because the hardness of the water on the site a massive amount of energy will be required for reverse

osmosis. RO pulls minerals, bacteria, and other solids from the water. Will the non-domestic wastewater being discharged by Rockwool contain concentrated amounts of bacteria and contaminants? What consequences will the minerals, bacteria and other solids have on water quality? Will the Rockwool discharge cause corrosive structural damage?

(d) A Rockwool industrial factory, will use millions of gallons of fresh, clean, drinkable water contaminating it, sending it to the utilities for chemical treatment which is required to make it safe for drinking, only to sell it back to the public. Clean ground water is precious and not appropriate for industrial use. RO uses a lot of water. The sheer volume of 14,900 (October 2, 2018, modified permit) to 17,000 gallons (undated letter attached to October 31, 2018, filing) that will be discharged to the Charles Town's main wastewater treatment plant with a design flow of 1.75 million gallons a day is significant. What effect will releasing 17,000 gallons of additional wastewater every day into Evitts Run have on the health of the water? Will mixing the Rockwool non-domestic waste water with domestic sewage hinder the breakdown of the sewage? Rockwool should not be allowed to apply for a series of small volume expansions in order to stay below the significant industrial user threshold of 25,000 gallons per day. Data on the impact a Rockwool's industrial factory water use will have on water levels for private wells has not been measured.

Response 104(a). See Section A. Responses 2.
Response 104(b). See Section A. Response 9.
Response 104(c). See Section A. Response 2.
Response 104(d). See Section A. Response 27.

SECTION C Oral Comments and Responses

Comment 1: Thank you for coming to hear our concerns. We believe that as career officials and environmentalists you care about the environment and know how that environment affects quality of life and public health, as well as how human activity and industry affect the environment.

(a) For its part --- Rockwool has shown that from site selection to the careless and downright negligent way that it has produced applications and conducted itself, that it has not --- it has no such respect or care for our environment, our health or our way of life.

As we have and will highlight, this is an abhorrently inappropriate location for such an installation. And the current iteration of the permits does not go nearly far enough to protect the environment or the public.

(b) Further, it looks like Rockwool has been given every administrative advantage including assurance from Caperton, before the review process has even been completed that the permits would be approved. Further still, the level of errors and misrepresentations in every permit Rockwool has submitted and it --- submitted its inability to comply with those permits demonstrate either shear incompetence, or intentional misrepresentation and negligence or both.

This begs the question, why are we taking this risk? We ask you to recognize that Rockwool has not demonstrated the competence or character to have its permits approved without an evidentiary hearing. We'll want to highlight a few of the many errors, incorrect information and sloppy report preparation over several permits that call into question Rockwool's ability to hold a permit and operate in accordance with the law and regulations.

(c) In 2017 --- in its 2017 application for stormwater construction, Rockwool named the wrong receiving stream on its permit application. The correct receiving stream is Rocky Marsh Run. A year later, Rockwool continued to be inconsistent about this simple fact using six different incorrect stream names. Naming the right stream is not difficult to do, yet this is not inconsequential matter, in fact, it is critical. Understanding the water shed is essential to the permit. Thank you.

Response 1 (a). See Section A. Response 19.
Response 1 (b). See Section A. Response 2 and Response 7.
Response 1 (c). See Section A. Response 6.

Comment 2: (a) On this multi-sector permit application, Rockwool indicated that its two stormwater outflows were going to be discharged to Abbot's Run, which is incorrect as we just noted. The Rockwool also --- and Rockwool also said stormwater was going to go to the City of Charles Town Stormwater Management System which doesn't even exist.

(b) At DEP's request, Rockwool has since fixed this error, but it is such a glaring error that one has to asked was this incompetence or intentional. Again, the correct stream is Rocky Marsh Run which is important because this is the stream that is in the source water zone for Shepherdstown's

water supply. Even more disturbing is that Rockwool does not include the nearby source water protection area for Shepherdstown in its spill prevention control and counter measure plan. Shepherdstown's water would clearly be affected by a spill.

(c) On permit applications, Rockwool has repeatedly given construction timelines what were many months to years shorter than was actually needed. Rockwool has repeatedly failed to check the box on its application for a grading period to exceed one year and sign the associated statement for billing for public notice.

(d) In May of this year, Rockwool requested and had a termination inspection for its stormwater construction permit. It was clearly not finished site work at that time, a point which DEP made when it denied the permit termination, and they asked Rockwool to submit this new application.

Do you think that Rockwool asked for a termination of permit coverage in good faith? Given these questions and others, and the fact that Rockwool was already sited for six types of non-compliance of its stormwater construction permit, including failure to report a sinkhole that was in basin one, DEP would not be serving the people and environment of West Virginia by approving these permits to Rockwool. Thank you.

Response 2 (a). Sanitary and water treatment effluent (which treats city water) is routed through underground sanitary sewer lines to the City of Charles Town Wastewater Treatment Facility prior to being treated and discharged. Facility water treatment effluent discharge is metered and sampled on-site prior to entering the common waste stream.
Response 2 (b). See Section A. Response 6, 7, and Response 21.
Response 2 (c). See Section A. Response 13.
Response 2 (d). This application was examined, and all relevant information was considered to determine the reissuance complied with the terms and conditions of the 2019 General Permit WV0115924.

Comment 3 (a): You heard, and you'll heard more evidence, that calls the DEP's and Rockwool's competence and character into question and justifies an evidentiary hearing on these water permits before any approval.

Evidence of incompetence and lack of character dates all the way back to the error permits that DEP approved for Rockwool in April of 2018. Myself and other scientists are trying to determine what we call incompetence was actually deliberate. Jefferson County Foundation filed a FOIA on our behalf in September giving promised a response by October 4th and we have yet to receive it.

There's a long list of errors in the evaluation of Rockwool's application that was provided to the DEP in the fall of 2018 by the Jefferson County Commission that DEP never responded to.

(b) Before you, this evening when I gave you just one example of many of those errors, it shows dramatic differences in calculations and wooden data. Dr. Michael Glen used the same data and software that Rockwool's contractor used, yet while Dr. Glen's calculations showed the wind calm

was 30 percent of the time, Rockwool's engineers say the winds are calm less than two percent of the time. The results Rockwool presented are invalid.

It gets worse. In a memo dated March 2nd, 2018, DEP personnel stated that they had reviewed and replicated the air quality impact analysis prepared by ERM and submitted by Rockwool in support of their application. Did they really? We don't think they did what they said they did. These are the same staff that agreed with Rockwool that Dulles International is in Maryland. Respond to our FOIA so we can see what was or wasn't done.

Last night Governor Justice said he would have DEP hold a meeting here immediately on the air permit. Let's have that meeting as soon as possible. Bring staff willing to testify to what they did or did not do in regard to the air permit. In addition, until you can restore public comments into the air permit, you should revoke it. Thank you.

Response 3(a). See Section A. Response 7.
Response 3(b). This comment is related to the air quality permit and beyond the purview of the Division of Water and Waste Management to evaluate comments that are not specifically related to the program requirements.

Comment 4: (a) First with regard to the stormwater construction permit, the public has not been given enough information to understand which version of the statewide stormwater construction permit Rockwool would be authorized under. The first 2019 version, EPA approved and was affective February of this year. But this is challenged by some industry groups and the resulting settlement produced major changes which weakens the permit. Those changes are still pending because the EPA has not yet approved the revised permit.

Which version of the 2019 statewide permit will Rockwool be authorized under, the first version or the version with substantial changes? DEP has not answered our many questions on this matter.

Rockwool did not apply in a timely manner for the new 2019 permit and may be currently operating without a permit for stormwater construction because the 2012 permit it had been authorized under has expired.

Again, DEP has not answered our direct questions about this. In fact, any discharges that Rockwool is generating, whether it be into a stream or into a sinkhole, might be unauthorized and in violation of the Clean Water Act.

(b) Rockwool began application process to reissue its stormwater construction permit in the fall of last year, a full year go, even agreeing to hold a public hearing but withdrew it for unknown reasons. In November of 2018, Rockwool exceeded one year of construction and had substantial changes to its plans due to sinkhole remediation, yet it continued to operate without completing the application for reissue.

(c) Rockwool should be made to stop construction until the current application for stormwater construction is approved. DEP's Stormwater Management guidance documents note that

groundwater protection plans need to be in place before stormwater structures are built. Rockwool's previously approved groundwater protection plan does not include the new bio-retention area, so some shortcuts seem to have been taken here.

I continue to appreciate the hard work by DEP staff. DEP leadership needs to hold Rockwool accountable. Rockwool needs to follow the rules just like anybody else.

Response 4 (a). The stormwater construction permit application was reviewed per the 2019 Construction Stormwater General Permit Issued 01-10-2019.
Response 4 (b). Reissue #2 was submitted on 06/21/2019. The public notice and public hearing were addressed in a technical correction requested on 07/19/2019. The application was resubmitted on 07/29/2019 along with a statement of billing.
Response 4 (c). The GPP will have to be in place under a reissued registration prior to construction of the new bio-retention structure.

Comment 5: (a) The multi-sector permit is for post-construction activities and should not be authorized until all earth moving work is complete. At this time construction permits have not even been completed. A version of Rockwool's multi-sector permit was released by DEP to West Virginia Rivers Coalition on Monday of this week. The PDF title contains the word draft but the document itself is not stamped as draft, which is concerning, because a letter from the DEP to Rockwool, which is not dated, in the document says that the permit has already been approved. How could this be approved if we have not even completed the public hearing process?

Further, the statewide multi-sector permit under which you, the WVDEP, administered the NPDES, operational industrial stormwater permit, was just renewed on the 12th of October. This is most recently the approved version --- this most recently approved version is more protective of the environment and people than was previous iteration there, therefore, requires companies like Rockwool to be more vigilant and responsible.

Is this why Rockwool's multi-sector permit was approved on the 12th of October under the previous iteration of the statewide multi-sector permit that is less honest and far less protective of our environment and our drinking water? Why are we taking that risk?

Response 5. NPDES Multi-Sector Stormwater General Permit registration (MSGP) number WVG611896 application complies with the 2019 Multi-Sector Stormwater GP.

Comment 6: The bottom line is we all know that this thing shouldn't even be built here. Everybody in this room understands that this on this ground and understands that this is no place to build it.

You know, we didn't come up with that on our own. The WVDEP document Stormwater Management Design and Karst Area. They actually have a document that talks about this. It says it's important to note that damage to groundwater, via contamination is an ongoing concern when developing in these areas.

What is the best approach according to the DEP? To use plans that direct new growth away from karst areas to more appropriate locations. What is appropriate about this location? Sitting on top of Swiss cheese where water goes into everybody's drinking water in the area. Your own rules say for you to do this.

Under the State Code 4758 Ground Water Protection Regulation, these were not followed when this was permitted. Rockwool didn't follow any of those permits that had to be done. You guys gave them permission to do this. I remember the very first meetings we went to when karst was mentioned, I don't think this was a language situation. We asked them, do you know what karst is? Blank. Blank. Nobody knew what it was. The only people that could have known this would have been the people who suggested this area to them and now you're here.

And so when the time comes for people to not have water in Shepherdstown, for Elks Run to be poisoned, for Harpers Ferry's water supply to be poisoned, the national park that's there, one of the largest campgrounds of America that are there, are all being endangered because you put this thing in a place that you yourselves admit should never be developed like this.

So, we are begging you, if you have made a wrong turn, backward is the right direction. Stop going forward with this. Deny this permit and put this thing somewhere where it belongs. It does not belong here.

Response 6. See Section A. Responses 3 & 4.

Comment 7: (a) As of this summer, there were at least 17 sinkholes on Rockwool's site. Rockwool was cited for failure to report a sinkhole when the first sinkholes appeared in 2018. Most of these sinkholes are inside of stormwater ponds. Much of the --- most of these sinkholes, which is a poor practice on karst as we just heard, the Chesapeake Stormwater Network's technical bulletin on stormwater design in karsts terrain which DEP has adopted in its own stormwater manual clearly states that the tension and retention ponds are not recommended. Not recommended on karst.

Again, quote, WVDEP's on karst guidance, attending --- attenuating surface run-off will increase the rate of sinkhole formation and potential groundwater contamination. In other words, creating wet ponds may actually increase the formation of sinkholes and develop --- and cause them to develop faster and allow contamination.

Therefore, it should be no surprise that seven sinkholes appeared in Rockwool's rainwater reuse pond during construction. In fact, according to documents available to --- on the DEP website, five sinkholes, number 13 through 17 in documentation I will provide, appeared over the month from June 21 to July 23 of this year. If these sinkholes, in fact, developed over this time period, it is an alarming rate of sinkhole development and demonstrating a complete inappropriate of this location for this type of development.

If these sinkholes did not develop in this timeframe, it is further alarming that Rockwool chose not to report the sinkholes in a timely fashion.

(b) My last point, the DEP approved Rockwool's sinkhole mitigation procedure in 2018 which includes adding liners to the ponds. Liners are a fix to mitigate an issue, a band aid for an ill that could have been prevented. Prevention is worth a pound of cure. And there is a common saying that quote, all liners fail at some point.

Rockwool's not even operational. So why should a fix be on the table. It is simply not necessary. Why are we taking this risk? This permit should be denied based on --- all permits should be denied or accepted on facts and science.

Response 7 (a). See Section A. Responses 3 & 4.
Response 7 (b). See Section A. Response 9.

Comment 8: (a) With 76 percent of the county's drinking water not supplied by public utilities, and all structures surrounding the Jefferson Orchard Site are on well, what confidence does the public have regarding safety of their water sources?

(b) Sixty-five (65) acres of land make up the drainage area. Plus roof drains with at least 43 drop inlets routed to sediment basis one and the reuse and settling pond already under sinkhole mitigation.

(c) The sinkhole mitigation procedure allows too much time to pass between identification of sinkhole and when it needs to be repaired. Time that allows for possible drinking water contamination. The DEP should require reporting within hours of noting the sinkhole and emergency intervention to happen within 24 hours. How many of the 17 known sinkhole repairs was DEP present for in the past year?

(d) The presence of unknown industrial chemicals near or entering stormwater ponds and sinkholes is such a risk in part because of the shallow depth of the water table and close proximity to water supply areas. Both the town of Harpers Ferry and Shepherdstown, as you've heard, have protection zones within a short distance of the site. Elks Run which feeds Harpers Ferry directly and Rocky Marsh for Shepherdstown supply are sourced adjacent to the site. Why are we taking this risk? Documents filed to the PSC and DEP state Rockwool will require 320,000 gallons per day for manufacturing processes. Yet only sent 17,900 to the Charles Town wastewater treatment plant. So where does the remaining water go after coal is milled, trucks are washed, boilers discharge waste and formaldehyde chemically laced binder is left over?

Perhaps the DEP should be inspecting the RAM-5 final site plans to ask when the weir gates are open, what's leaving the mixed-use ponds travelling into our water resources along with the stormwater.

Please reject these permits at this time. Thank you.

Response 8(a). See Section A. Responses 3.
Response 8(b). See Section A. Response 5.
Response 8(c). See Section A. Responses 4.

Response 8(d). See Section A. Response 21

Comment 9: (a) Groundwater protection plan and monitoring from DEP's progress tracking, it appears that DEP approved Rockwool's groundwater protection plan on September 26th. How could this be approved prior to review of public comments?

(b) The section of Rockwool's multi-sector application for groundwater data is woefully incomplete and demonstrates a cursory analysis of what is truly a foundational concern.

The DEP guidelines for submitting a successful groundwater protection plan includes a number of information types that Rockwool barely gets into. The plan says a discussion of all available information reasonably available to the facility of activity regarding the existing groundwater quality at or which may be affected by the site. These data sources, such as previous groundwater data and monitoring, are known especially from extensive USGS and county research. But Rockwool failed to describe them.

Rockwool also failed to describe the geophysical testing done in 2017. And in what should be an embarrassment to Rockwool's report contractor, the narrative references groundwater data that includes --- that are included in the table --- in the appendix --- of the appendix section is incorrectly titled. The table--- and the table has no descriptive text and does not even label the units of measurement rendering it useless.

Please reject this registration application in its current form.

Response 9(a). See Section A. Response 8. The Groundwater protection plan meets the requirements of the 2019 general permit and will be approved along with approval of the Multi-Sector Stormwater General Permit Registration WVG611896.
Response 9 (b). See Section A. Response 3.

Comment 10: There are real settings that are applicable to the Rockwool site and sinkholes. I wanted to mention an important one. A USGS study published in 1991 that was partially funded on local and federal taxpayer dollars and is publicly available online. This study used dye-tracer tests to determine rates and directions of groundwater flow within the karst aquifer. Dye was injected into a sinkhole in Shenandoah Junction about a mile from Junction Orchards. Two weeks later, the same dye was detected at a monitoring point north of Shepherdstown. Within two weeks, it was detected at an additional five sites between Kearneysville and Shepherdstown. The study reported movement of up to 840 feet per day. Which indicates that contamination can happen quickly.

This sort of information is, in fact, reasonably available to the facility and should have been considered. The director of the DEP can and should require Rockwool to perform routine groundwater monitoring. It is reprehensible that Rockwool has not included this in its plans.

There are several places in the state code that call for groundwater monitoring. State Code 47CSR58, Ground Water Protection Regulations, Section 4.3 states that groundwater monitoring

stations may be necessary to determination if contamination is occurring or has occurred and also to, quote, assure protection of the groundwater resource, end quote.

In Section 4.9 it goes on to say, quote, new facilities shall monitor groundwater upon order of the director. If the director reasonably believes that an industrial establishment or activity has the potential to contaminate groundwater, end quote.

Page 69 of the West Virginia DEP Stormwater Management Guidance documents states monitoring wells and groundwater sampling may be required by the director for the assessment of the potential for, or existence of, groundwater contamination.

It is reasonable to believe Rockwool has the potential to contaminate groundwater. And monitoring for groundwater contamination should absolutely be required here. Given what we know about the sinkholes on site and our sensitive groundwater resources and knowing that 70 percent of the people in this county drink well water, the DEP should be required --- should require frequent monitoring and reporting of groundwater.

Response 10. See Section A. Response 20.

Comment 11: Thank you for coming down here today to listen to our concerns. We appreciate it. We know, like us, you want to protect our drinking water and our environment.

I want to talk today about the water --- rainwater reuse pond. Rockwool advertised this as a water conservation feature. The expected contents are actually quite alarming, and the DEP cannot permit it as a stormwater structure.

The rainwater reuse pond collects run-off from a 14-acre drainage area outside the manufacturing area including the gravel waste pit. Rockwool has repeatedly claimed that this pond will contain only stormwater and backwash from water filtering. Water from backwash is not stormwater.

Furthermore, Rockwool describes the IEP that run-off from this pond could, quote, contain dust from handling of raw materials for the melting processes which would include solid materials such as stone, slag, smelt for reuse items. The IEP also mentions that the pond could receive sprinkler system drainage from inside the binder storage building.

By design, the pond has a triple liner and no outlet for overflow. So, with no outlet and a liner, this is actually a pool. And by Rockwool's own admission it will contain industrial effluent. This pond should be renamed the industrial facility drainage pool, and as such, I request that the DEP require Rockwool to routinely sample for the contents of this pool.

The IEP also describes how this pool is sized for a 100-year rain event. And in the event that it is approaching capacity due to a large storm, Rockwool can store and treat the water. To, quote, for example, Ran-5 could employ water tank trucks to haul out the water to be treated at a designated public ally owned treatment works.

So, let me get this straight. In the middle of a large rain event, Rockwool will haul out whatever is contained in this pool, store it temporarily in containers and then find a treatment facility that can handle it. We know Charles Town doesn't have that capacity in a big storm. This seems like a plan that needs more details and an additional level of permitting.

Given our recent near-record rainfall, this needs to be treated like a situation that will happen rather than a bridge to be crossed in the middle of a downpour. DEP should require Rockwool to describe exactly where and how this water, which is not simply rainwater, will be treated. For this reason, and for the reasons other have mentioned about the risks in karst geology, DEP should deny this permit and require Rockwool to apply for an individual permit. Thank you.

Response 11. See Section A. Response 23

Comment 12: (a) We're here tonight to demand that you protect our water and our environment in Jefferson County. We ask you to hold an evidentiary hearing to get Rockwool on the record about its admissions and storage of coal ash and other hazardous materials at its site in Ranson.

I'm neither a scientist nor an engineer but I do know a little bit about propaganda, and that's exactly what Rockwool is using to muddy the waters about its dirty polluting operations in Ranson. There's always a grain of truth on their statements, but those statements are designed to deceive and hide the full truth.

Rockwool would have us believe that there is no danger to our water from their plant. They'll have permits and they're sustainable. There will be no coal ash. They will burn about 94 tons of coal a day and there will be no coal ash. Rockwool calls its coal ash, and I quote from a Rockwool document, solid material that is generated during manufacturing and that will be recycled into the manufacturing process. You can put lipstick on a pig, friend, and you can call it a beautifully made-up girl with lovely make-up but it's 1 still a pig.

(b) If you're burning coal, what comes out of those furnaces is coal ash. Rockwool will put the coal ash from their furnaces into unlined stormwater ponds on its property. And I may be wrong on the unlined part. Rockwool Ranson sits over the most active sinkhole area in Jefferson County, a county made up of karst geology. I want to know how Rockwool is going to keep the coal ash from their furnaces out of our aquifer and out of my well.

(c) I want you to turn these permits inside out and upside down and give us 100 percent assurance that Rockwool isn't going to harm our water. What hazardous materials will be held in the 13 tanks on Rockwool's property? They refuse to disclose that. Again, I request that you hold an evidentiary hearing about these permits and Rockwool's operations to ensure they tell the truth, the whole truth and nothing but the truth. We're not interested in propaganda, we demand facts. Thank you.

Response 12(a). See Section A. Response 15.
Response 12(b). See Section A. Response 3.
Response 12(c). See Section A. Response 18.

Comment 13: I'm going to give you a little break. I am dizzy with figures and facts of these amazing citizen researches. Give them a hand.

I'm giving you a short quote. One thing that I thank Rockwool for is that I have become an average student of politics and history of West Virginia. So, I'm reading Robert Burry, let me quote. And he made a long speech when Bush bamboozled the citizens into the war of Iraq. Which is kind of comparable; isn't it? Mixed figures, wrong statements, et cetera, you know what I'm getting at.

So, he says when he talks about the fall of Rome. A lesson to be drawn is that Rome's enemies laying out outside her boarders, but within her bosom. Many early symptoms that heralded to Roman decline may be seen in our own nation today. The prevalence of corruption, dishonesty, and greed in government and in business. Too much money in politics, the apathy of the governed toward the selection of those who govern. Federal word, fear not, change is in the air. You may not stop the decay as is the life cycle of all empires of the past, so also at some point of the USA --- is that the end? Boy, am I slow? Forgive me.

Response 13. See Section A. Response 2.

Comment 14: The West Virginia environment --- of environmental protection is responsible for ensuring the water, the land and the people of West Virginia are protected by the actions of those who do not care about compliance and our protection. As DEP employees you are individually and collectively responsible for what happens here.

The DEP has told the federal EPA that West Virginia is capable to stand in the shoes of the Federal Environmental Protection and Oversight, and protect us, our water from illegal contamination. Not simply taking enforcement action after it's too late.

Yet we see an agency that is accepting horribly incompetent or intentionally misleading representations from a foreign corporation who has no long-term interest in our land, water, or people. It is profit driven and like all profit-driven operations makes risk assessments that balance risk and safety.

Corporations with safety cultures that value the environment and people do not make the kinds of mistakes that you'll hear about tonight. And Rockwool has not demonstrated the basic principles of having the right safety culture for you as the regulator to rely on their self-regulations, which is what you are about to do.

I understand that you have been given a pre-determined outcome by the political leaders of your department. We understand that. But you will be here trying to protect us from what is happening now long after this administration and the next have failed us.

In August 2018, DEP Secretary Caperton attended a closed-door meeting at the Bavarian Inn, sponsored by Rockwool and closed to all citizens. In that meeting Secretary Caperton specifically assured Rockwool that they had nothing to worry about regarding local citizen opposition to their facility or about getting the necessary pending permits approved, and that is exactly what

happened. So why would you bother to look at the facts if the determination is already pre-determined? Thank you.

Response 14. See Section A. Response 2.

Comment 15: I want to thank you all for coming to eastern panhandle to hear our concerns. Citizens in our area are uniquely vulnerable because of our karst terrain, which is so porous and so different from the underlayment in other parts of our state.

(a) As you know, in southern West Virginia it took years before the coal cleaning chemicals spread to all the groundwater and poisoned all the wells. Not true in the eastern panhandle. We are riddled with sinkholes which allow poisons to quickly disperse throughout all of our underground water supply. A disproportionate share of eastern panhandle residents gets their drinking water from underground wells and large aquifers. Dye tests done locally have proven how quickly poisons disseminate throughout our local water supply.

(b) I'm here tonight because I watched the heartbreak in southern West Virginia as people were becoming seriously ill and they had no idea why until it was too late. Tonight, you will hear from local citizens about the careless and haphazard way the permit application for air and water were prepared. All of Rockwool's permit applications were done with obvious mistakes that tell us they didn't make any effort to acquaint themselves with our area.

The long list of errors in their applications tell us the preparers unfamiliar and seemingly didn't care about learning the locations and facts about eastern panhandle air and water.

Therefore, I'm asking that Rockwool, be denied a general permit and required to submit an individual permit application. Citizens in --- okay.

I've given my last line. We don't plan to go away from this fight. We will prevail one way or another no matter how long it takes.

Response 15 (a). See Section A. Response 3.
Response 15 (b). See Section A. Response 7.

Comment 16: Good evening and welcome to eastern panhandle. Thank you for coming from Charleston to hear our concerns about these stormwater permits.

(a) I'm here tonight to ask that you deny Rockwool's general permit request and require Rockwool to file for individual permits. The mistakes and discrepancies in this permit request tell me they were hastily and carelessly done with a lack of knowledge about the vulnerabilities of our area.

(b) There are many sinkholes on Rockwool's site. Where a sinkhole is present, there is a direct connection to groundwater and a very high potential for contamination should run-off enter a sinkhole.

(c) Industrialization of Jefferson County makes no sense for this area or the State of West Virginia. Charles Town depends on taxes from the eastern panhandle to pay for remediation in the coal fields where the pollution has stayed in West Virginia while profits have gone to Richmond, New York, St. Louis, and other prosperous states. The acidic water breaking out of abandoned mines are running off MTR sites requires treatment and perpetuity.

(d) The State of West Virginia depends on our tax revenues to help finance the state of the part of Medicaid expansion. The cancer clusters so common in Prenter Hollow, Logan, Blair, Macklin, and other coal field communities have devastated local citizens.

They need and deserve our support. But meanwhile we don't want to sicken a lot more West Virginians. That's exactly what will happen here eight or ten years down the road if we allow Rockwool to pollute our air and water. Thank you.

Response 16 (a). See Section A. Response 7.
Response 16 (b). See Section A. Response 4.
Response 16 (c). See Section A. Response 2.
Response 16 (d). See Section A. Response 2.

Comment 17: I got a 13-page list of technical comments that I just had for these folks and my statement will be answered. But I'm an architect and a LEED professional.

(a) The greatest concern that I have is that the sinkholes will open up, the liners will open up because of sinkholes and the way that the fluids involved will contaminate the ground water. The Department of Protection must not issue Rockwool permits until all the technical issues in my paper and other people's information is answered.

My comments are it is essential that a detailed site investigation be made before locating and designing its stormwater ponds upon our terrain, and I was told the features of that. It is recommended that stormwater ponds not be located in karst terrain. Stormwater ponds, according to Rockwool's plans, are located in potential sinkhole risk areas, which are identified on their plans.

(b) Their pond liner system is faulty, and I have listed the full reasons why I think it's faulty. I list the recommended changes to Rockwool's stormwater pond designs from prominent geotechnical engineers. And that includes installing two liner systems and a liquid retention system between the layers, installing monitoring wells and assertive action to take when groundwater is contaminated.

Rockwool's stormwaters are designed in accordance with the Chesapeake Stormwater networks. And then who will monitor the groundwater and who will pay for the clean-up when the groundwater's contaminated.

Response 17(a). See Section A. Responses 3 & 9.
Response 17(b). See Section A. Response 20.

Comment 18: I'm going to tell you facts I just learned today. There is going to be a total of 13 above-ground storage tanks, they're located on-site. The data sheets for materials used at the facility are listed as confidential. If there was a spill, the community would not even know to what they were exposed. You heard about the karst. I live out on a little farm with a well. And I think we're in big trouble here.

The West Virginia Department of Environmental Protection cannot approve these permits as they're stated --- as they stand, excuse me. Doing so would be reckless and irresponsible and put the community's drinking water source and recreational water at risk. West Virginia DEP must require individual permits for the Rockwool facility to implement additional measures to mitigate risk and protect groundwater resources. Please deny the permits. Thank you.

Response 18. See Section A. Response 18.

Comment 19: I live in Bakerton, Jefferson County. And thank you for coming. I'm a biologist, I have a Master's in Biology, and I spent my career working on the river, the Potomac River and its watersheds. I'm very impressed with the testimony that's been given today. I doubt that you have been at such a competent hearing in your lives perhaps. But thank you, my neighbors.

I'm here --- most people have addressed things I wanted to bring up. I'm just going to add a few things. What should have been required in the original permit for construction, and for any of this, is a more comprehensive geomorphic assessment of the site, as Gavin just mentioned. That can still be done on the stormwater locations and they need to be done.

Also, I think that West Virginia DEP should require dye testing of the sinkholes that are there so we have a better idea of where contaminates may flow and what times are involved so if there is an accident on that site, they would be able to know, you know, how quickly they need to respond. Right now, that's an unknown and that needs to be done.

But I, again, wish that DEP would reconsider their already approved construction permit and deny the new application for the final phase because it's not complete and I'll leave it at that. Thank you.

Response 19. See Section A. Response 20.

Comment 20: Citizens are bringing forward grievances and flaws with these permits. We are concerned the quality of West Virginia water and for our downstream neighbors in Chesapeake watershed including Maryland, Virginia, and D.C. We ask you to hear these complaints and follow your own procedures and protocols. The filing of comments specific to each permit, I'll discuss the construction, stormwater construction permit first and then my friend, colleague will follow-up with the multi-sector permit.

(a) Comment one, the permit registration was originally issued under general permit requirements for stormwater associated with oil and gas related construction attendees instead of the appropriate ones for the general stormwater construction permit. This must be corrected before moving forward with every issue.

(b) Comment two, the receiving streams are not properly identified --- excuse me. Comment three, velocity, dissipation devices are required by the general permit, or two, designated outlets. The second erosion control plan only calls for a flow spreader. This is inadequate and violates the general permit requirements.

(c) Comment four, is the limit of disturbances erroneously listed as 98.5 acres LOD for construction project. It is indeed over 100 acres and must be processed according to the proper permitting protocols for construction sites over 100 acres.

(d) Comment five, there were significant issues obtaining information regarding the permit. The public notice was released and corrected three times and still contained incorrect or vague information. I requested by e-mail for the draft permit per the instructions in the public notice was not honored and instead the request was directed to the Potomac Mission System which did not contain that permit. A request to review Rockwool's stormwater protection plan and the laws were also denied. Do I have more time?

Response 20(a). See Section A. Response 1.
Response 20(b). See Section A. Response 6 and Response 14.
Response 20(c). See Section A. Response 10.
Response 20(d). The public may review this registration including the Stormwater Protection Plan on our web site. The public cannot be denied access to review permits or laws associated with the General Permits.

Comment 21: Hello. My name is Guiliana Brogna. I am the treasurer of the Rural Agricultural Defenders. I'd like to make the following comments regarding the multi-section permit. We'll be following up these written comments with --- spoken comments with 16 written comments later.

(a) Comment one, the discharged water that Rockwool seeks permit coverage for is not water entirely composed of stormwater associated with industrial activity. Most egregiously it contains a significant volume of treated well water that will be used at the Rockwool facility and its grounds for fire protection. Well water used for fire suppression is not stormwater.

(b) Comment two, Rockwool's Integrated Environmental Plan, IEP, is not complete and there are significant safety concerns regarding --- especially regarding their retention ponds and sinkholes. Rockwool has also revised their IEP to consider their existing underground pipelines.

(c) Comment three, receiving streams are not properly identified.

(d) Comment four, the topographic maps and the site maps are deficient. The application must be revised to comply with the general permit requirements.

(e) Comment five, which version of the general permit does this registration fall under, 2014 or the 2019 general permit revised edition? The draft registration states that the permit is authorized under general permit issued March 3rd, 2014 expiring February 29th of this year. No provisions

were made during the public comment period for the reissue of a general permit in 2019 for continuing construction activities.

Furthermore, an appeal of the newly reissued 2019 state permit is currently underway in the Environmental Equality Board. A point that has not been issued in its final form, and therefore, individual registrations cannot be registered.

Comment number six, there were significant issues obtaining information regarding this permit. A public notice was released and corrected three times, and still contained incorrect and vague information. A request by e-mail for the draft permit per the instructions on the public was not honored. Instead, the request was directed to the electronics admission system which does not contain that permit.

We will not let you dismiss these concerns. We are fighting for our lives and for the environment. Please do your jobs. Follow your own rules and protect the citizens of West Virginia. Thank you very much.

Response 21(a). See Section A. Response 24.
Response 21(b). See Section A. Response 25.
Response 21(c). See Section A. Response 6.
Response 21(d). See Section A. Response 7.
Response 21(e). See Section A. Response 12.

This is a registration process and not an actual draft permit. WVDEP has issued the General Permit and interested/affected facilities(s) can apply through the application process to obtain coverage under the General permit, so there is no draft permit for this type of registration process. We have tried and provided everyone who requested information access through our electronic system which contains application and associated documents.

Comment 22: I write as a Jefferson County resident and speaking, obviously, and farm owner concerned with the above referenced permits. These would be the construction and stormwater permits under discussion. And this relates, obviously, for the Rockwool factory under construction in Jefferson County.

(a) As currently configured, neither of these permits should be approved. But at a minimum, they need to be significantly modified. First, Rockwool has not shown itself competent in even writing permit applications. And I do not believe DEP can have any confidence in the company's ability to manage its stormwater either during construction or operations.

(b) It is deeply troubling that while the receiving stream is Rocky Marsh Run, in the online application the protection and prevention plans show Shaw Run and the Opequon as the receiving streams. This would be laughable if the potential for harm were not so grave.

(c) My family farm is bounded by Rocky Marsh Run and I fear the consequences of Rockwool discharge for our produce, and livestock and for the overall value of our property. Whether the

contamination is to be surface water or ground water, the impact of the plant's run-off and discharge could be severe.

(d) Related to the above, the presence and already woefully inadequate management of sinkholes should raise alarms with DEP. The company has shown itself willing to ignore or avoid requirements where reporting sinkhole issues, as well as failing to put in place an appropriate structural sinkhole repair procedure. Given the number of sinkholes on the property, and their propensity to be dynamic factors in our geological structure, we may well expect this issue could become more severe as time goes on.

(e) Monitoring guidelines are inadequate as currently proposed. The danger to groundwater and public water sources is such that self-regulation is inappropriate and monitoring by regulatory way must be more frequent and more rigorous. Thank you.

Response 22 (a). See Section A. Response 7.
Response 22 (b). See Section A. Response 6.
Response 22 (c). See Section A. Response 3.
Response 22 (d). See Section A. Response 4.
Response 22 (e). See Section A. Response 20.

Comment 23: I am speaking on behalf of my family. We share a property line with the former Jefferson Orchards. We have owned Hazelfield Farm, a natural registered historic property for over 50 years. And we are horrified to be facing the prospect of living next to a heavy industrial site that can pollute our air and water.

The water quality in Hazelfield has always been one of the things we cherish most. The karst geology of our area is completely incompatible with an inappropriately sited industrial waste water disposal.

I am pleading with West Virginia DEP to protect our rights and interests over the needs of a foreign corporation. The potential negative impacts to our drinking water are irreversible. Do not allow this general permit to be approved as it stands. It must be separated and reviewed individually. Rockwool has already proved that it is not a trustworthy neighbor. Thank you.

Response 23. See Section A. Response 20.

Comment 24: I'd like to make a few general comments, really in-depth comments. I just would like to say that I think --- I don't know if everybody really realizes that this Kearneysville site is a ridiculous place to put this plant. It sits at the head of time ports of the three major streams that's in this area. We got the Peck District; we've got Hell's Run and we've got Rocky Marsh Run.

All --- and those end waters all within a few hundred yards of where this thing is. And we've talked about the Swiss chess underneath of there, we're talking about stormwater now. But in addition to the stormwater, when it gets down into the sinkholes, we don't know where it's going to go.

Now, being on the Water and Sewer Board in Jefferson now for 37 years, with that debacle in Charleston, we ended up having to come with an alternate place to get our water in case it's still in the river. This seems likely these days, so we have made arrangements to take our water out of the Elks run on a temporary basis.

But now with this change, it's not only those other streams we mentioned, Shaw, the Elks Run, Rocky Marsh, but when water gets down into those sinkholes, we don't know where it's going to go. There are multiple streams all along the ridge road to come out. And one of those springs ends up in the Elks run, which is our alternate source.

And we're also talking about the Harpers Ferry water supply. This should signify something. That plant should not be where it is. And I am absolutely appalled that our state government is taking $150,000,000 to promote this thing. It's unacceptable.

Response 24. See Section A. Response 2.

Comment 25: I want to make sure that the DEP gets this right. I oppose the project, I oppose the permit and I agree what everyone that has made a statement so that you can't say there was only one person that came up here to the podium that had that argument.

So first off, everything that everybody has said so far, I am in agreeance that this permit, for multiple projects, need to be ended and done correctly or don't do it.

First, general permits have not been approved. We've made several statements on that. So, where's the bond when something goes wrong? Everybody else has to have a bond. So, where's the bond and how much when this thing goes bad, which we know you're going to let it happen. So, where's the bond? That's real important.

I'm also concerned that this will turn into a class five injection well regulated allowance without our notification. This could very well happen. You've done it before in Jefferson County and nobody knew about it until I did a FOIA.

The West Virginia Economic Development Authority has taken over the facility with $150,000,000 bond. I have case law that is the Jefferson County Development Authority, TEMA, that you actually --- are we done?

Anyway, I'm glad I said what I said up front. There's a lot of stuff that's wrong. We need to stop it. We need to stop this bunch.

Response 25. See Section A. Response 2.

Comment 26: I am Jane Tabb, I'm later on the list and I wanted to get this done tonight. I'm a Jefferson County resident, mother, grandmother, farmer, and county commissioner. Tonight, I speak to you as an individual.

Tonight's hearing is on Rockwool's stormwater permit, that is clear. But I have been focused on Rockwool's air quality permit. Last week I received an independent technical review of an air quality permit issued by DEP for Rockwool. I paid consultants thousands of dollars, my own dollars, for this report.

In the summary of this 40-page report, there are eight sections of critical concern. Dr. Patrick Campbell's concluding statement, quote, overall, the NSRPSD air quality modeling analysis submitted by Rockwool is found to be deficient and has numerous technical issues. These technical issues range from relatively minor to major impacts on the final modeled air pollutant concentrations and impact assessments in the report.

These issues are comprehensive and many of the modeling, monitoring data and methodologies need to be corrected to satisfy an acceptable NSRPSD air quality monitoring analysis.

It is my --- excuse me, it is my opinion that too many critical details are missing, overlooked, or not discussed in enough depth in Rockwool's air quality, modeling and analysis. And they need to be corrected as soon as possible to ensure appropriately analyzed impacts of the project site on the surrounding cumulative air pollution concentrations, unquote.

Response 26. This comment is related to the air quality permit and beyond the purview of the Division of Water and Waste Management to evaluate comments that are not specifically related to the program requirements.

Comment 27: I'm from Shepherdstown. To qualify, post-9-1-1, I won the Army's Greatest Invention Aware for worldwide bioterrorism surveillance. I understand this problem. I'm also probably the least humble person in a 200-mile radius. I'm a little paranoid because I watched this direct mechanism move forward.

I want to trust Rockwool, but I can't. The Rockwool president and others had a meeting today at the racetrack. I was there with my 93-year-old mother-in-law. Gilligan Espinoza was there, on the payroll. And I want to know, are you there for that free lunch and is that appropriate?

Understand, you guys never pollute if you use public reasons for private gain, you're a Gilligan. Or you are --- it's proved that you're not using the best treatment. Yeah, that's true.

Now, I just want to explain something. I'm a chemist and this is 2019. This is not 1919. Chemistry fixes all of this pollution and you've chosen not to do chemistry to fix it. When you take a 50,000-foot view of Rockwool, 45 factories, 84 tons a day, that's 4,000 tons a day. Light that truck on fire every five minutes and drive it by here, 24/7, seven days a week, 365 days a year. You've had your share, you're done.

You've already proven that you don't manage things properly and you need to --- we need to have limits to your company. Not one more, not here, not until you clean up your mess.

Use chemistry. It's not hard to do. Our local citizens proved Rockwool's incompetence and the WVDEP approved it with details. Please expedite the denial of this permit and force real compliance, not propaganda.

Response 27. Section A. Response 2.

Comment 28: I'm requesting an evidentiary hearing and please deny permits to Rockwool. Heavy industry should never have been brought to Jefferson County in the first place. And karst topography should not be a toilet for Rockwool's contaminates and coal ash. I agree with all of the previous speakers.

(a) What's very concerning to me is that Rockwool had a catastrophic flooding event at their Grand Port, British Columbia plant last year. So, catastrophes do and will happen.

(b) The high contamination potential of the above-ground 13 storage tanks that are --- that will be located on that site are extremely a big concern for me, especially if we don't know what they are in case there was a spill. Which there have been a spill and catastrophe in Grant Port last year.

(c) In their fight to lower the water safety standards, the West Virginia Manufacturing's Association stated West Virginians are heavier and that their bodies can handle more pollutants because they drink less water. They are less exposed to pollutants. Now, this is an absurd statement and a desperate propaganda with no regard for the citizens of West Virginia.
Does this sound familiar? Sounds like the opioid, the big pharma, big tobacco and asbestos, which by the case Rockwool is probably next to asbestos according to the EU Today News.

And November 22nd, Dark Waters, the movie, come out soon about DuPont's poisoning of West Virginia citizens. So would you like a new movie about Jefferson County being poisoned? Because I'm sure there could be one for sure. And the last is West Virginia broadcasting, public broadcasting, has an article about study finds West Virginia counties among the worst in the nation for drinking water violation. How sad is this? Please do your job and protect us. Thank you.

***Response 28(a)*. Section A. Response 15.**
***Response 28(b)*. Section A. Response 18.**
***Response 28(c)*. Section A. Response 2.**

Comment 29: I'm speaking tonight on behalf of the West Virginia Interfaith Power and Light, a group of concerned citizens from various faith traditions who believe that care of creation is a must. I'm also representing the Ohio Valley Environmental Coalition, OVEC, a non-profit working on environmental justice in West Virginia, the Appalachian Region.

(a) Both IPL and OVEC members understand water to be a sacred gift and a responsibility. Therefore, on behalf of both of these organizations, we are asking the Rockwool's construction stormwater permit and the multi-sector permit not be approved as stands. We ask you to consider the grave concerns we have about the pattern of the inaccuracies in historic and current permit applications.

(b) One example, the Rockwool facility is situated in karst terrain with at least 17 sinkholes identified to date. This facility is only 1,500 feet from an elementary school and the well head protection areas and a residential neighborhood.

(c) Yet it is within the Shepherdstown supply watershed and their application in 2017 indicated that well head and source water protection areas are unknown. This is not unknown. It could have been found online or from Rockwool stormwater plan contractor, Thrasher Engineering who was the author of Shepherdstown source water plan.

(d) You have heard many other examples of errors in these applications. Given this numerous errors and omissions, we do not believe that Rockwool is paying attention and it is not protecting our water. IPL and OVEC, therefore, ask that you not approve Rockwool's stormwater construction permit and multi-sector permit. Water is life, a sacred gift and a responsibility. We must protect our water.

Response 29(a). See Section A. Response 11.
Response 29(b). See Section A. Response 4.
Response 29(c). See Section A. Response 21.
Response 29(d). Section A. Response 7.

Comment 30: I live here in Shepherdstown and I represent the 67th., House of Delegates District in the West Virginia Legislature.

Please reject these applications. I know that all of you career professionals in the Department of Environmental Protection want to do everything you can to protect West Virginia's environment. I know that. I also know that you are not permitted to do so because of direction from the current political leadership of our state.

Our state's environmental laws are way too weak. They need to be much stronger. But even these weak laws are not being enforced the way they should. You have, again, not willingly, I know you don't want to, but you have already cut Rockwool far too much slack. Please, make them obey, at least, the weak laws that we have. Thank you.

Response 30. Section A. Response 11.

Comment 31: Good evening. My name is Tanner Haid and I'm an eastern panhandle field coordination for West Virginia Rivers Coalition.

(a) We're here tonight to provide public comments on behalf of our members, supporters, and community. Our staff has conducted analysis of Rockwool's stormwater permits and we find the DEP must not issue these permits until additional protective measures are addressed.

(b) Including, but not limited to, more frequent inspections in the construction stormwater permit, substantial improvements of sinkhole repair procedure. As we've already seen, Rockwool is not compliant to properly reporting sinkholes.

(c) Requiring Rockwool to have individual industrial stormwater permit that has all pollutants of concern, use the facility and monitoring requirements. In rationing out those requirements with higher frequency, benchmark limitations and cut-off concentrations.

(d) We find that the analysis for eight baseline parameters was not submitted by them as required. We request an extension of the construction period until the analysis of those parameters is submitted and the public has an opportunity to review them.

(e) In closing, DEP cannot approve these permits as they currently stand. Thank you for the opportunity to comment. We have confidence that DEP will listen to this community, to the people in the room tonight and you will take our thorough scientific analysis and propose additional protective measures into consideration before issuing these permits.

And we also wish to thank all of you for sharing your voices with us tonight and letting DEP know that we value clean water in our community, and that we're relying on them to protect our vulnerable water resources through strict enforcement of our stormwater permitting process.

We'll be submitting our full technical review in writing by the October 31st deadline. Thank you, again, and have a good evening.

Response 31(a). See Section A. Responses 11.
Response 31(b). Under the 2019 General Permit, inspection requirements are more stringent than the modified EPA 2017 Construction General Permit.
Response 31(c). See Section A. Responses 11.
Response 31(d). See Section A. Response 26.
Response 31(e). See Section A. Responses 11.

Comment 32: I live in Shepherdstown.

And I have over 15 years of research experience in Appalachian stream ecosystems. And a particular focus of my research program explores the effects of groundwater in stream systems. I've published many scientific papers on this topic. My comments here represent no institutional organization but they're simply on my own behalf as a citizen.

(a) I want to make three points tonight. First, stormwater affects groundwater, particularly in karst terrain. Yet the permits under consideration fail to account for this basic reality.

(b) Second, the Rockwool site plan includes an unmined and uncovered waste pit from which we can be highly confident that contaminants will leach into groundwater.

(c) Third, we know with high confidence that groundwater under the Rockwool site is shallow and that it flows east into Elton, the drinking water source for Harpers Ferry, as well as west and north throughout the county where families, including my own, depend on well water.

Allow me to elaborate on each on briefly. On the first point, it's clear from any map that Jefferson County has fewer streams than other counties out west but east are of course because karst is under us. Essentially, a system of caves where the movement of water can be more profound underneath the soil than on it. Rockwool's hydroelectrical plant and the MS-4 calculations from DEP address this because they reduce the expected run-off in karst terrain. But they failed to address the next logical question. Where does the stormwater go if it doesn't go in the streams? The answer, of course, is that it goes into the groundwater. As such, stormwater affects groundwater in karst region and the permit should reflect this later on.

On the second point, the Rockwool complete appears to include an unlined and uncovered waste pit, also known as area B170 in the melt for reuse area. This would collect coal ash waste from the bag house and waste cutting from the product line. This plan to encompass approximately half an acre, Jefferson County rain with equivalent be 50,000 gallons of rainfall through this pit. We can be highly confident that this would create a contaminant risk for leachate into our drinking water source. I encourage you to reject these permits for these reasons. Thank you.

Response 32(a). See Section A. Response 4.
Response 32(b). See Section A. Response 3.
Response 32(c). See Section A. Response 20.

Comment 33: Hello. My name is Barbara Stiefel. I live on the western slope of the Blue Ridge here in Jefferson County. I worked 20 years as a professional economist and I'm a student of ideal society structure.

Access to a healthy environment is the right of the taxpayer, and therefore, it's the duty of a government to offer protection to the environment. I believe this application should be turned down and I'm going to offer you four good reasons to do so.

(a) The permits filed by Rockwool have major discrepancies, that's reason one.

(b) Reason two, Rockwool has not proven they are using the best treatment for technology or the best management practices available --- excuse me. There are risks of the Rockwool stormwater lagoons overflowing and neither Jefferson County nor the State of West Virginia has investigated insurance, response, containment, clean-up, or legal costs in their analysis.

(c) Third good reason, Rockwool does not have a right to discharge pollutants into and out of the water. And I would add, Rockwool does not have a right to discharge pollutants into an aquifer. If they didn't know about the topography risks, shareholders and other stakeholders should sue Rockwool for failure to perform due diligence. The owners of Rockwool want to flush their waste directly into our aquifers thereby circumventing the protection afforded the streams and rivers of the United States.

(d) Rockwool is wanting to use a public resource for private gain, that's reason four. A Rockwool industrial factory will use millions of gallons of fresh, clean, drinkable water for private gain. Contaminating it, sending it back to us at cost. An environmental and economic impact analysis needs to be done before Rockwool is granted any permits.

Response 33(a). See Section A. Response 7.
Response 33(b). See Section A. Response 23.
Response 33(c). See Section A. Response 11.
Response 33(d). See Section A. Response 2.

Comment 34: (a) We are here this evening because Rockwool has proposed changing the limits of disturbance on stormwater construction permit. This is the permit that was issued so that Rockwool could grade its site in preparation for the building that is well under way and will be finished in the near future.

The limits of disturbance were changed to remove some areas that were previously permitted but not disturbed and to add others that will be disturbed during the completion of the project. In projects of this size and type, this sort of change is common.

The stormwater from the plant site is caught in seven basins allowing the solids to drop off it and water then runs to an open area to the north of the site. The closest receiving stream down the gradient of the facility is a tributary of Elk branch as you've heard tonight. There is no discharge to the Charles Town sewer system nor will there be.

Stormwater permits require preparations of stormwater pollution prevention plans and groundwater protection plans. Both of which Rockwool has prepared and complies with. The permit mandates construction and implementation of best management practices to prevent discharge of sediment of stormwater to surface water or to groundwater. That is what is being done at the Rockwool site and will continue to be done as construction is completed.

(b) The multi-sector stormwater general permit, or MSGP, will apply when the construction stormwater permit is no longer in effect. Under the MSGP, industrial facilities sample their stormwater and compare them to benchmarks. As long as the benchmarks are being met, water quality is being protected. The MSGP compels Rockwool to comply with these benchmarks.

Rockwool will be collecting its stormwater and using some of it in its industrial process instead of discharging it. We are not aware of any other industrial facility that is doing this to the extent planned in Ranson. It is an example of the innovative approach Rockwool takes to reducing its environmental footprint.

The actions that Rockwool will take to prevent stormwater from becoming contaminated, including its material storage, operations and housekeeping practices are detailed in its Integrated Environmental Plan which is available for review. We believe it is an example of Rockwool's commitment to the environmental storage shed.

Response 34(a). See Section A. Response 1.
Response 34(b). See Section A. Response 11.

Comment 35: Well, I'm Ned Marshall. I lived in Shenandoah Junction right on the Rocky Marsh about a mile and a half downstream from this proposed industrial complex.

I have a suppressed immune system because of a lung transplant and so anything that happens air, water pollution from this plant are extremely hazardous to me. I feel that this plant is an existential threat. I think that it is --- has a high possibility of killing me and other people through air pollution and water pollution if this goes on.

I get my water from a well. My property has three sinkholes. I am right on the front line of where their pollution is coming in the water and in the air. It has been said they have all these problems with their applications saying several things. I'll take, like, which is the receiving stream, the Rocky Marsh or others. And I think that's just an example of the fuzzy information that we've been receiving.

Which is it? I mean, they know the lay of the land I'm sure. Why do you have conflicting information? Is it one or the other? Which way? Does it dump into the Charles Town system? And what will be in the stormwater? If it's stored in ponds, what else will be in those? Will it be tested? I would ask you to reject this application. It's full of gaps and cherry-picked information and it's vague. And it'll allow pollution to be --- to poison our groundwater and streams. This must not stand.

Response 35. **See Section A. Response 7.**

Comment 36: Good evening and thank you to everyone for coming out. I'm Daniel Lutz and I am one of the elected county district supervisors for Jefferson County. And as such, part of my purview is to oversee the safety of the waters and soils of Jefferson County, and the eastern panhandle which we're a part.

I want to thank the speakers who have previously gone. They have cited much technical information which I will cite again.

I am concerned about the way the DEP is handling this situation. On September 24th, I went to the Rockwool site and I produced my card that identifies me as an office holder in West Virginia, and I asked to speak with people about the class five injection well that I have heard has been ousted on the Rockwool site.

I met with a gentleman named Mark Greene and I told him what I wanted to know, and he said we'll get you an answer. I'm still waiting for an answer. I contacted DEP and although I had a couple of voicemails, I haven't been able to get back to anybody on this or to get an answer.

These class five injection wells, once they are initiated as speaker Tabb eluded to earlier, can be used to dump anything as long as you mix it with 50 percent stormwater, even fracking waste. Now, oh, they won't be bringing fracking waste to Jefferson County. Don't you bet on it. They'll be $10,000 a truckload to dump the stuff and a driver $2,500 to keep his mouth shut. It will come.

Finally, there is, as Mr. Marshall eluded, this can be treated chemically. We can use physics. We can eliminate the pollution with industrial centrifuge which Rockwool's people refuse to even talk about. Thank you.

Response 36. There are no injection wells proposed under the Multi-Sector Stormwater General Permit (New MSGP #1 WVG611896) or the NPDES/State Storm Water Construction (WVR108876 Reissue #2).

Comment 37: My name is Sheila Ridla. I want to speak; I just have no technical data. I have nothing other than I want to say things for other people. They don't have the confidence to come to a meeting like this. There are many parents, families that are so afraid of what they think may be coming. They're afraid for the children, the schools that are so close to this proposed facility.

I just want to remind people in history back in the '50s, Bertrand Russell in England made people aware what he did burn the bomb marshes and do all that kind of stuff made people aware that you only have a right to say no. They have a right to protect the environment. He made us aware that letting off bombs, dropping bombs could cause fallout, and it did, acid rain. Proving that what goes up comes down. It comes down in the rain, it goes into the ground, it goes into our water. It goes into our food; it goes into everything that we live for.

Also, I just wanted to make you aware of other things. Things like I don't know the year, but the London fogs were caused by coal that was burned causing huge amounts of coal ash in the air. People couldn't see their hand in front of their face. They had to do something about those things to clear it up.

They've done it, they've gone, and they've made things smokeless and protected people. In Los Angeles, my husband remembers well they had smog alerts. Children were sent home from school because they couldn't breathe. They had things over their faces and tried to get pure air in. They have done --- California has done emission control to try to protect.

I'm asking the DEP look back to history. Use that to be the protectors. We need you to protect our air, our water, our children. Thank you.

Response 37. See Section A. Response 2.

Comment 38: And I just wanted to talk about my late father who studied geology at University of Cincinnati, and he was born in West Virginia. He knew a thing or two about karst geology. And he liked to quote his professor whose historic view of human activity on our environment noted that when civilization poisons its water supply, that civilization is doomed.

This is what we are facing. As the Rockwool factory was --- we don't need nor want is forced upon us in Jefferson County. Rockwool is unwilling to drink its own waste water. Please protect or environment. Instead of protecting factories that omit toxic materials and reject Rockwool's permit. Thank you very much.

Response 38. See Section A. Response 2.

Comment 39: I live in Jefferson County and I am a volunteer with the Elks Run Watershed Group. Elks Run is the drinking water supply for Harpers Ferry and Bolivar, as well as Harpers Ferry National Historical Park.

It has already been pointed out this evening the concerns of groundwater that contamination can affect Elks Run because not only does ground --- surface water influence groundwater in karst, it also in turn affects surface water again. In Jefferson County there is no surface water and groundwater, there's only water. And we are asking you to protect it and to do your jobs that live up to the name of Department of Environmental Protection.

I just want to say three things that --- our reason we'd like you to deny this permit. (a) The facility should be classified with a substantial harm determination because the facility is located at a distance that has such a discharge that the facility would shut down a public water supply. (b) Because of the increased risks to groundwater, DEP must require enhanced spill prevention and response measures, and the monitoring requirements are inadequate as has been pointed out this evening.

DEP cannot approve these permits as they stand. Doing so would be reckless, and irresponsible and put the community's drinking water and recreational waters at risk. Thank you.

Response 39(a). See Section A. Response 16.
Response 39(b). See Section A. Response 20.

Comment 40: Good evening. I appreciate you guys coming from Charleston to come up and meet with us today.

Really short and sweet. There's nothing more that I can articulate better than my friends, family, and neighbors. They have given you plenty of factual data that shows this is a bad idea. And my biggest point with all of it is you are culpable in the bad idea.

That said, finally while I'm up here, Sammy and John, there is something I would love you guys to do in the future. Next legislative session let's get some better karst groundwater protection on the books.

Response 40. See Section A. Responses 2.

Comment 26 (Continued): I just want to finish up very quickly my previous comment. As my quote from Dr. Campbell you all are now informed of the deficiencies of Rockwool's air quality

permit which demonstrates an alarming trend of poor permit review and enforcement by DEP. An evidentiary hearing for this air permit, as well as the stormwater permit, is crucial. Now is the time to remedy the situation.

Rockwool's air permit is so faulty to be invalid. West Virginia DEP's approval of the permit is a massive failure for the agency and the citizens of this state. DEP can do better; I know they can. Rockwool can do better; I know you can. West Virginia, we must do better.

Response 26 (Continued). See Section A. Responses 2.

Comment 41: I just moved to Harpers Ferry October 15th when I was 17. My parents moved out to Louden County, so I've been close to the area for a long time now, and this area means a lot to me.

And you know, I purchased my house in Harpers Ferry. This is like a dream come true for me. You know, I'm a young person trying to provide for my family, you know, have the American dream, a place where I really feel like home, where I want to set my roots. And then to find out this is happening, I first found out as I was traveling to go paddle on the river. I paddled from Millville to Harpers Ferry. You know, high water's good for me. I love going out on the rapids and I enjoy myself a lot. And you know, I'm not that good at speaking, trying to articulate all my thoughts so I wrote my thoughts in poetic form and I just want to share very quick.

Paddling these sacred waters, grateful to exist. I watched the bald eagles dive for the fish. I want my daughter to remember this. As it is now, in the future will there be a cloud of bad air above us all. Those who don't stand for something will fall for anything. Lies were being told, there's plenty of them. Been all over the world, never seen a place like this. As the eagle dives for the fish, I think to myself, yes, I am willing to die for this. One wish let us exist. Clean air, clean water, God's gift. So, if they poison us, just remember this.

Response 41. See Section A. Response 2.

Comment 42: I thank you all for coming up from Charleston tonight, it's a long drive. I'm sure you remember in 2014 when there was an above-ground tank that leaked, leaked into your water supply. There are a lot of people still having to drink bottled water down in Louden County. We only have above-ground storage tanks. We don't know what's going to be in them because it's a trade secret. We have sinkholes on the property, we have coal ash pits, we have stormwater ponds that contain stormwater that has water in it that is not from storms. Our rocks underneath is really porous like a sponge. Residents in the area, including me, depend on well water. And I live half a mile from Rocky Marsh Run. What could possibly go wrong?

We need stronger laws. But the laws we have are capable of being enforced. Please enforce them, please require protection of our water and our people. That is the way for West Virginia to develop economically. Please deny these permits until everything is correct, and the people are protected. Thank you.

Response 42. See Section A. Response 11.

Comment 43: I have a few things to say. First of all, you have one chance to get this right. There are parts of West Virginia that have irreversible environmental damage because of the DEP's permitting. Mountaintop removal has caused what is termed sacrifice zones. Do not make Jefferson County a sacrifice zone.

I want to go off-topic a little bit and say that we are now in Denmark, we're on the ground, we have Tracy walking. We have a complaint that just went out to the Danish government. I've been in touch with an architect in Denmark for six months now who says that there's a lot of people in Denmark, the green people, who say that Rockwool is green washing, that they're against Rockwool in Denmark.

Rockwool has a --- has taken over the insulation industry. It shuts down small insulation businesses. They're really upset about it. We are fighting, we have to fight here, and we have to fight in Denmark on the ground, in the government and you have to be --- we have to sustain this fight.

And it is sophisticated, and they did not expect this. And they are going to just keep getting pounded and pounded because we're not going to stop. Thank you.

Response 43. See Section A. Response 2.

Comment 44: I'm a new citizen in Jefferson County and Shepherdstown. And I just had a couple of questions for the gentleman who got up and spoke. First off, do you live here, do you live in Jefferson County? Where do you live?

Charleston? I was a test subject in Charleston when they had the water leak down there. Nothing is guaranteed. What's bad going to happen, it's going to happen here with this project. Number two, do you work for Rockwool or are you a hired hand with somebody else?

Well, no. No. You were supposed to say who you represented when you walked up here. Who do you work for? I'm asking you a question.

Well, no. It's a question. He was supposed to tell who --- I want to know, on the record, who he works for. That's all.

Response 44. See Section A. Response 2.

Comment 45: I have kids in local schools, Washington High School in the area. That's why I'm here to say what I'm going to say. As far as the stormwater run-off from the facility, that's bad enough when we don't even know what it's going to be. There's another term that everybody in this room needs to know and that's --- it's atmospheric deposition. If you don't know what it means, look it up.

All it basically is, and I'll keep this short, is what goes up into the atmosphere, which I've heard is 150,000 tons. That just --- it blows my mind. But it's got to come down somewhere, and when it comes down, it comes down on the groundwater. On the ground itself, and on the ground water and on everything that is around us. It washes into unchecked stormwater run-off and into the Chesapeake Bay watershed and we know where it goes from there.
Right?

To the Chesapeake Bay. So if the problems on the site are so bad that we don't know where the water's going to go, or the waste water that they have called waste water in the tanks, which I just learned about tonight, and we don't even know what's in them.

It's not a question of when it's going to happen, is it going to be the first day they open? I mean, there's just a little bit of earth --- in Charles Town there's huge caverns running under Main Street, Washington Street. And there's pictures of people in little boats in those caverns. And that's the drinking water for my house in Charles Town, and for my family which is in Bakerton. And anyway, I urge you to not --- I urge you to stop work. And that's all.

Response 45 (Continued). This comment is related to the air quality permit.

Comment 25 (Continued): To finish up on what I had before to DEP.

The Rockwool facility has been taken over by the West Virginia Economic Development Authority with $150,000,000 bond. The TEMA facility in Jefferson County, though the Jefferson County Development Authority asked to put their permit because they own the property, so does the now West Virginia Economic Development Authority. They own the property, they're the ones that have the money.

So whichever way you all want to go, the DEP, you got a fight on your hands. Because we have conflicting information. So, if the Jefferson County Development Authority has the permit for TEMA because it's a leased project, then it has to be the same with Rockwool. So no matter what, I'm going to have you in front of a proceeding that we are going to find out.

Several people have already talked about this tank issue. Well, in Charleston several years ago, one tank sprung a leak that caused the DEP within one year to change all the rules. And if you have more than,1300 gallons of storage, you have to get a permit and tell what is in it and you have to allow them to come on your property, unannounced, to bring this to revision and you don't have a choice. If it's 1,300 gallons, you got to do this.

The other part, and I'll finish it up, that the West Virginia Economic Development Authority with the $150,000,000 bond is on 130 acres. That's over the 100 acres. You cannot separate what you think is there. This is real. Stop this project. Make it right in the right position. And we the people have a constitutional right to this. Thank you.

Response 25 Continued. See Section A. Response 2.

Comment 46: I am a daughter of Jefferson County; a proud West Virginian and I am honored to represent the 65th House District here in the eastern panhandle.

Ladies and gentlemen, bear with me, because I am --- I was not expecting to speak tonight. But so many of you --- thank you, God --- you make so proud. You make me so proud the way you showed courage and spoke truth to power and came with facts but spoke from the heart and represented an area with such distinction. I truly am proud to belong to you and I cannot emphasize that enough.

Further, I had a colleague and a county commissioner that came today and spoke and exemplified political courage that is unparalleled and I wanted to thank him.

To the DEP, John and I essentially take up lots of space in your Charleston office. I want to thank you so much for hearing not only our pleas but the pleas of our constituency, and for being here to hear directly from them why they're concerned about this particular project.

But ladies and gentlemen, I want to make very clear my feelings on this particular project. You've told me over and over again how you are concerned. You have said time and time again that you do not believe in the fact that we have a corporate interest, getting more distinction from the people of the eastern panhandle and the people of West Virginia.

You'd have to be living under a rock if you miss the fact that we put people on the picket line to get five percent pay raises, but we gave a corporation $150,000,000 in a bond.

We asked for infrastructure to lift up our working families and get them to the district, and yet time and time again we have been met with an opposition for a mere hundreds of thousands of dollars and yet we've given millions to a foreign corporation. We have in no way --- you got to speak up. You have --- I appreciate you letting me go over.

We're not going away. This is a community that has risen up time and time again. They spoke at the ballot box; they continue to speak at each and every community forum that they are not only invited to but demand, so they have their voices lifted up. There will be no amount of intimidation that will back the folks of the eastern panhandle down. There will be no amount of defamation that makes sure that they don't have adequate representation.

We here believe in not only economic justice, environmental justice, but we believe in the power of our fellow man and our neighbors. I want to be sure that you will know that you have folks that are fighting for you. That we know that it is our charge to give voice to the voiceless and we will not back down, and we will not back up.

Thank you so much for being here tonight. Thank you for being part of the movement. And thank you for making it so that I believe in a west Virginia.

Response 46. See Section A. Response 2.

Comment 47: I moved here to be with my daughter. And one of the big reasons was a clean air. I like to breathe. And I'll tell you I'm ninety-three years old and I worked in an aviation business for a long time. I had served in the Navy in World War II. And always dealing with various chemicals that were very kind of destructive to you.

And I kind of got that out of my system now after being away for a while and I'd hate to get back into it. So, unless they can provide clean air with no problem, I don't like it. Thank you.

Response 47. See Section A. Response 2. This comment is related to the air quality permit.

Comment 42 (Continued):

One more thing off-topic again. I want to know --- I see one person from the DEP here. Is that you? Where's everybody else? I mean, I feel like we're talking to one person. I want to know how many of you are there. Okay.

If they're not --- I don't think they have to respond. But I just want to point out that we're here pouring our hearts out, and we've done research and we're talking to, like, one person, the State of West Virginia to the DEP. It just --- it just boggles my mind. And I just wanted to point that out.

Response 42 (Continued). See Section A. Response 2.