

May 22, 2024

**VIA EMAIL**

Andrew Bishop, President  
Bishop Brothers Construction Company, Inc.  
1376 Leisure Drive  
Towanda, PA 18848

RE: Technical Deficiency Letter #2 for Noncoal Application  
Bishop Brothers Construction Company, Inc.  
Mining Permit Application No. 08230301, Minard Mine  
NPDES Permit Application No. PA0270041  
Athens Township, Bradford County  
APS ID No. 1089095, AUTH ID No. 1440877 & 1440878

Dear Mr. Bishop:

The Department of Environmental Protection (DEP) has reviewed the response to the first technical review letter for the above referenced application and has identified the following technical deficiencies. The deficiencies are based on applicable laws and regulations, and the guidance sets forth the Department's preferred means of satisfying the applicable regulatory requirements. The appropriate regulation is cited in brackets following the deficiency comment.

**Technical Deficiencies**

**MODULE 1 GENERAL INFORMATION**

1. Please note that the permit will be special conditioned to require the driveway permit and flood plain permit from Athens Township prior to activation of the site. (Acts 67, 68, & 120)
2. On August 15, 2023 Athens Township approved a clarification of the Conditional Use Decision of February 21, 2021. The 2021 Conditional Use Decision only explicitly applied to the Agricultural Zoning District. The August 15, 2023 decision clarified that the Conditional Use Decision applied to the entire Minard property including Woodland Conservation Zoning Districts. The August 15, 2023 decision was subject to two separate appeals in the Pennsylvania Court of Common Pleas. Please inform the Department of any developments related to the appeals. (Acts 67, 68, & 120)
3. The Pennsylvania Historic & Museum Commission sent a letter dated December 12, 2023 finding that there was high probability of archaeological resources in the Minard Mine permit area. Subsequently a Phase I archaeological survey was completed in the stream encroachment areas under jurisdiction of the U.S. Army Corps of Engineers.

PHMC sent a letter dated April 24, 2024 which stated the PHMC agreed with the recommendations of this report and found that no further archaeological work was necessary within the USACE jurisdictional area. However, PHMC still recommends a Phase IA survey be completed for the rest of the proposed permit area. Please indicate if you plan to proceed with the Phase IA survey. If you choose not to proceed with the survey, then please submit a plan detailing what kind of precautions will be implemented and what type of for monitoring for archaeological resources will be conducted during the removal of topsoil and other unconsolidated deposits above the bedrock where the archaeological resources may be located.

## **MODULE 6.2 ENVIRONMENTAL RESORUCES MAP**

1. Delineate the area of the Phase 1 Archaeological Survey that was completed on the map. {25 PA Code 77.410}

## **MODULE 8 HYDROLOGY**

1. Provide updates to the monitoring data where required. Data should include at a minimum 2 background samples for each drilled well water supply within 1,000 feet of the proposed mining operation. {25 PA Code 77.532}
2. Please revise the paragraph of Module 8.6a regarding the proposed piezometers near wetlands I, II, and J to include the following details: {25 PA Code 77.403}
  - a. List the proposed piezometers that are shown on the Exhibit Maps (PZ-1 through PZ-6).
  - b. Describe when the piezometers are proposed to be constructed and monitoring will begin as the mining progresses towards those wetlands.
  - c. Provide the details for how each piezometer would be constructed. Refer to Detail 8 on Exhibit 10-2 with the piezometer construction design.

## **MODULE 10 OPERATIONAL INFORMATION**

1. The permit line set back is now shown correctly on the cross-sections, however the Exhibit mapping were not updated to show the actual setbacks with the lengths listed. Revise the Exhibit maps to show/list the appropriate setback distances. (25 PA Code 77.572)
2. An agreement to relocate the Penelec electric utility line was not provided. If an agreement is not obtained, a no mining area must be shown around all electric utility lines within the permit boundary. If there is no established right-of-way then the Department assumes a total right-of-way of 50 feet with a 25-foot barrier on either side of the utility line. The only activity that wouldn't require an agreement is when vehicles would just be passing under the electric mine on an existing road. All electric power poles should be shown on the mapping and the allowed setback distance barrier shown around the utility line. The owner

- of the utility line should be identified on the map or in the map legend. (25 PA Code 77.504)
3. Item 2 of the construction sequence for the Sand & Gravel Phase 1 area on page 10-4 indicates that a containment berm shall be installed around the mineral extraction area. Please revise this section to indicate that a containment berm will be used in areas outside of the floodway and that a containment moat will be used in areas within the floodway. {25 PA Code 77.452 and 77.458}
  4. The emergency spillway side slope dimensions on Detail 13 on Exhibit 10.1 (4H:1V) are not consistent with the side slopes listed on the pond design sheets (3H:1V). {25 PA Code 77.458}
  5. The inside and outside embankment slopes appear to be reversed on Detail 13 on Exhibit 10.1 from what is proposed on the pond design sheets. {25 PA Code 77.458}
  6. Detail 3 on Exhibit 10.2 shows a 4-inch dewatering pipe for Basin 2, but this pipe is not identified on the pond certification sheet for Basin 2 on page 13-11. Revise these sections to be consistent. {25 PA Code 77.458}
  7. The riprap size specified for the principal spillway on Detail 2 of Exhibit 10.2 is not consistent with the riprap size proposed on the pond certification sheet for Basin 1 on page 13-9. {25 PA Code 77.458}
  8. The riprap sizes specified for the emergency spillway and principal spillway on Detail 3 of Exhibit 10.2 are not consistent with the rip rap sizes proposed on the pond certification sheet for Basin 2 on page 13-11. Revise these sections to be consistent. {25 PA Code 77.458}
  9. Detail #8 on Exhibit 10.2 is labeled as "Pipe Perforation Detail". It should specify that it is for the piezometer design. {25 PA Code 77.454}

### **MODULE 13 IMPOUNDMENTS/TREATMENT FACILITIES**

1. Module 13.1 indicates that the discharge pipe from Basin 2 is valved and can be closed. This valve should be closed while applying flocculent. There is concern of flocculent reaching Tutelow Creek. Provide a narrative indicating how the operator is going to ensure that all flocculent has settled out prior to opening the valve to Basin 2. {25 PA Code 77.526}
2. Pages 13-4 and 13-5 indicate that if Support Area Sump 1's capacity is exceeded; runoff will flow overland to the south towards Support Area Sump 2. If Support Area Sump 2's capacity is exceeded, runoff will flow overland to the south towards Basin 1. Please clarify why the emergency spillway design for Support Area Sump 2 is not based on the drainage area to Support Area Sump 1 plus Support Area Sump 2. Please clarify why the emergency

- spillway design for Basin 1 is not based on the drainage area to Support Area Sump 1 plus Support Area Sump 2 plus Basin 1. {25 PA Code 77.458, 77.525, 77.526, and 77.531}
3. The response to Module 13, Comment 5 did not fully address the comment. Page 13-5 indicates that Basin 2 was designed to provide a total of 12 hours of detention time based upon the dewatering rate of the pit pump. This page goes on to indicate that a 200 gallon per minute pump is proposed. Page 10-2 indicates that conveyance of pit water from the sump to Basin 2 can be achieved by Ditch 1 (gravity drainage) or by pumping. Page 12-6 indicates that Ditch 1 has a peak discharge of 190 cubic feet per second which converts to 85,278 gallons per minute. Please clarify how Basin 2 will have sufficient capacity to provide a 12-hour detention time should the pit sump fill up to a point where Ditch 1 begins conveying flow to Basin 2 at its peak discharge rate. The elimination of the gravity drainage option for dewatering the pit sump may be the simplest way to address this item. {25 Pa Code 77.458, 77.525, 77.526, and 77.531}
  4. The response to Module 13, Comment 5 appears to conflict with the information provided near the top of page 13-2. Page 13-2 indicates that during a major rainfall/snowmelt event, the pit floor will be used for stormwater storage. If the Ditch 1 invert elevation will be approximately four feet below the pit floor elevation as specified in the response to Module 13, Comment 5, it is difficult to envision how the volumes listed in Table 13-1 on page 13-2 would be able to be contained in the pit. Revise this information as necessary. The elimination of the gravity drainage option for dewatering the pit sump may be the simplest way to address this item. {25 PA Code 77.458, 77.525, 77.526, and 77.531}
  5. The Basin 2 potential inflow is listed as 180 cubic feet per second on page 13-5, but the calculations provided on page 13-19 and the design for Ditch 1 on page 12-6 list a peak discharge rate of 190 cubic feet per second. Revise these areas to be consistent. {25 PA Code 77.458, 77.525, 77.526, and 77.531}
  6. Please provide calculations to demonstrate how the principal spillway capacity of 24.7 cubic feet per second as listed on page 13-9 was determined for the 10-inch principal spillway pipe of Basin 1. This capacity seems to exceed what the expected capacity could be for a 10-inch pipe. {25 PA Code 77.458, 77.525, 77.526, and 77.531}
  7. The emergency spillway capacity on page 13-9 for Basin 1 is listed as 29.7 cubic feet per second. The emergency spillway capacity on page 13-19 for Basin 1 is listed as 24.7 cubic feet per second. Revise these sections to be consistent. {25 PA Code 77.458, 77.525, 77.526, and 77.531}
  8. Basin 1 does not provide the required 7,000 cubic feet per acre of capacity at the principal spillway elevation. The previous requirement based on the Department's guidance was for 7,000 cubic feet per acre of capacity at the emergency spillway elevation, which this pond does provide. However, all newly designed ponds are required meet the 7,000 cubic feet per acre capacity at the principal spillway. See the Department's Standard Operating

- Procedure (SOP) No. BMP-13 for the explanation of the pond design requirements. Revise the pond designs accordingly. {25 PA Code 77.458, 77.525, 77.526, and 77.531}
9. The rainfall amount on pages 13-9, 13-11, 13-13, and 13-15 should be listed as 4.9 inches instead of 4.2 inches. {25 PA Code 77.458, 77.525, 77.526, and 77.531}
  10. The top widths of Support Area Sump 1 and Support Area Sump 2 are listed as five feet on the pond certification sheets. This dimension also appears on Exhibit 10.2. NRCS Publication Pond 378 specifies a minimum top width of six feet based on the proposed embankment height. Please revise the top width to be a minimum of six feet for these sumps or demonstrate how a top width of five feet satisfies the regulatory requirements. {25 PA Code 77.458, 77.525, 77.526, and 77.531}
  11. Revise the exhibit maps to show the emergency spillway location for Support Area Sump 1 and Support Area Sump 2. {25 PA Code 77.454}

#### **MODULE 14 STREAMS/WETLANDS**

1. Module 14.1(b) on page 14-14-1 refers to Detail 5 on Exhibit 10.2 which appears to depict a berm adjacent to Tutelow Creek. Berms are no longer proposed within the floodway or adjacent to the stream. Please update Detail 5 on Exhibit 10.2 as necessary. {Chapter 105}
2. Module 14.1(b) on page 14-14-1 refers to Detail 7 on Exhibit 10.2 which appears to depict an impoundment safety bench. Should this section instead refer to Detail 11 on Exhibit 10.2? {Chapter 105}
3. Module 14.1(b) on page 14-14-1 indicates that mining support areas will be utilized for activities such as overburden storage, product storage, and/or E&S controls. This encroachment is specific to the floodways and activities such as overburden storage and product storage area not authorized within the floodway and are not proposed as per the most recent Exhibit 9 map. Revise this section as necessary to accurately list the activities that are proposed within the floodway. {Chapter 105}
4. Confirm that the correct details on Exhibit 10.2 are referenced in Module 14.1(d) on page 14-14-2. {Chapter 105}
5. The proposed 72-inch culvert is not drawn to scale in cross section D-D' on Exhibit 14 Sheet 2 of 2. {Chapter 105}
6. The Exhibit 14 stream crossing design drawings must be signed by a professional engineer instead of a professional geologist. {25 PA Code 77.410}
7. The legend of the Exhibit 14.1 map shows the FEMA 100 Year Flood Plain, but it could not be located on the map. {Chapter 105}

## MODULE 17 AIR POLLUTION AND NOISE CONTROL PLAN

1. Revise the fifth paragraph of Module 17.3(g) to clearly indicate that berms will only be constructed in areas outside of the floodway. Berms are referenced in the first and last sentence of this paragraph. {25 PA Code 77.452}

You must submit a response fully addressing each of the significant technical deficiencies set forth above or DEP may deny the application. A full response to this letter is due by **June 22, 2024**.

If you believe that any of the stated deficiencies is not significant, instead of submitting a response to that deficiency, you have the option of asking DEP to make a decision based on the information with regard to the subject matter of that deficiency that you have already made available. If you choose this option with regard to any deficiency, you should explain and justify how your current submission satisfies that deficiency. Please keep in mind that if you fail to respond, your application may be denied.

Should you have any questions regarding the identified deficiencies, please contact me at 814.342.8200 to discuss your concerns or to schedule a meeting. The meeting must be scheduled within your allotted reply period, unless otherwise extended by DEP. You may also follow your application through the review process via eFACTS on the Department of Environmental Protection website.

Sincerely,



John Mital, P.G.  
Licensed Professional Geologist  
Moshannon District Mining Office

cc: Public Review Copy - Athens Township Building  
Tim Gourley, P.E., Tract Engineering, PLLC *(via email)*  
Daniel C. Husted P.E., Chief, Permit & Technical Services *(via email)*  
H. David Goss, Inspector Supervisor *(via email)*  
Michael Donahue, Blasting Inspector *(via email)*  
Holly Greenly, Environmental Trainee *(via email/hardcopy)*  
eFACTS/ Permit Application File

JPM/adf