

December 13, 2022

Nick Mason New Elk Coal Company, LLC. 12250 Highway 12 Weston, CO 81091

## Re: New Elk Mine (Permit No. C-1981-012) Permit Revision No. 6 (PR-6) Adequacy Review

Dear Mr. Mason:

The Colorado Division of Reclamation, Mining and Safety (Division) received your application for PR-6 for the New Elk Mine on September 27, 2022. The application was deemed complete on October 14, 2022. The Division finished its review of the PR-6 application and the New Elk permit, and has the following adequacy questions or comments:

Section 2.03

1. The revised pages submitted are not consistent with the currently approved pages. Information on the current pages will be lost if these new pages are incorporated. Please update the proposed revised pages so they fit seamlessly in with the currently approved pages.

Section 2.03.9 – Personal Injury and Property Damage Insurance Information

1. The last insurance certificate the Division has on file is from 2016. Please submit the most recent insurance certificate as part of this application.

Section 2.03.10 - Identification of other Licenses and Permits

1. No adequacy questions.

Section 2.04.3 – Site Description and Land Use

1. The proposed Section 2.04 Table 4 shows that 219.1 acres of affected lands are being added in PR6. Please update the table to show the total amount of affected acres, including the PR6 addition, for the entire permit area.

Section 2.04.7 Hydrology Description



- 1. The text states on Page 25-a that a total of twelve potential springs and seeps sites were identified within a one-mile buffer of the PR-6 permit boundary. The text also states the parameters of pH, flow, conductivity and temperature of these springs and seeps are presented in Table 12. The location data and field measurements of these new springs and seeps were not included with the PR6 application. Tables 11a and 12 need to be updated to include the data for the new springs and seeps.
- 2. The potential for subsidence associated with the updated mine plan should be thoroughly evaluated, as is required by Rule 2.05.6(6). It is likely that this will involve an engineering study similar to the 2011 Agapito study found in Exhibit 24. The results of this updated study should be referenced when evaluating the PHC.
- 3. A thorough analysis should be made of the Probable Hydrologic Consequences of the mine plan proposed with PR-6, as is required by Rule 2.05.6(3). It is likely that this will involve at least an addendum to the 2011 Whetstone study found in Exhibit 8(4). The PAP text should be updated with reference to the new study.
- 4. A revised version of Map 8, Regional Hydrology, has been submitted. During the revision process the map frame was reduced, so that the western end of the permit area has been clipped off. Although the changes proposed with PR-6 are to the east of the current permit area, the information to the west should be retained. Revise Map 8 to restore the coverage of the area to the west.
- 5. The hydrologic monitoring plan is presented on pages 2.05-104 through -110 of the PAP. The currently approved plan was appropriate for the New Elk mine prior to PR-6, while the mine was inactive; it is not appropriate for an active mine, or for the mine plan proposed with PR-6. Please review and update the hydrologic monitoring plan, in accordance with the performance standards given in Rule 4.05.13.
- 6. Please also propose locations for Groundwater Points of Compliance as appropriate. It may be helpful to refer to the Division's Groundwater Monitoring and Protection Technical Bulletin for guidance; the technical bulletin is available from the DRMS website: https://drms.colorado.gov/programs/coal-regulatory-program/coal-program-guidelines-and-technical-documents/technical

Section 2.04.11 - Fish and Wildlife Information

1. No adequacy questions.

Section 2.05.3 – Operation Plan

- 1. The following maps need to be updated to show the new PR6 permit boundary: Map 10-vegetation, Map 11 sheet 4, Map 11 sheet 6 and Map 15a.
- 2. Table 19 needs to be update to show the new haul road and its associated structures that were added as part of TR76.
- 3. Page 10 bottom, the language regarding the Apache Canyon air shafts being returned to use was removed for this revision. Are there any plans to return the shafts to use? If there is the potential for reusing them please commit to submitting a technical revision before implementing any plans.
- 4. The Exhibit 42 additional materials that were included in the completeness response were labeled as pages 42-1 through 42-4. This is only a partial list of the current Exhibit 42. The current Exhibit 42 has 12 pages detailing 55 structures. The proposed Map 20, sheets 2-7 series shows

166 details. Exhibit 42 needs to be updated to include all the structures listed on Map 20 sheets 2-7.

5. On page 111 it states that the current mining plan under the Purgatoire River and associated alluvial valley floor will most likely not be impacted by subsidence. The Blue Seam is roughly 250-300 above the Apache Seam. New information regarding undermining the Purgatoire River in the Blue Seam needs to be addressed and included. This should include depth of the Blue Seam from the Purgatoire River in the areas planned to be over the mining areas. As well as, if/what type of measures taken to prevent impacts to the hydrologic balance.

## Section 2.05.4 – Reclamation Plan

1. No adequacy questions.

Section 2.05.6 - Mitigation of Surface Coal Mining Operation Impacts

- 1. New information regarding the subsidence section of the permit (Rule 2.05.6(6)) and updated information about mining in the Blue Seam was not included with the PR6 application. The assertion that the proposed Blue Seam mining will not cause subsidence has not been supported. Specific information about the characteristics of the Blue Seam and the proposed mining method needs to be addressed.
- 2. The currently approved text mentions a minimum depth of cover of 450 feet over the Apache Seam, but does not discuss the depth of cover over the Blue Seam. Based on a review of the revised maps (Map 3 Blue Mine Plan, Map 6A Sheet 5 Blue Seam Depth of Cover, and Map 7 Coal Seam Cross Sections), it appears that the depth of cover above the Blue Seam could be quite shallow, particularly at the point where the proposed workings approach the Purgatoire River. For example, Map 7 shows a depth of cover of 91 feet at A-19, and 82 feet at NE-01-10. Text and maps need be submitted to show the minimum depth of cover to all the Blue Seam workings.
- 3. Exhibit 24 was referenced in the proposed revised pages for PR-6; however, Exhibit 24 was not updated to include the proposed area of PR6. Please submit an updated Exhibit 24 along with a comprehensive discussion of how the data in the analysis (Exhibit 24) will be applied to the mining plan and subsidence control plan for the proposed PR6 expansion area.

If you have any questions or need additional information, please contact me at (720) 774-0040.

Sincerely,

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Brock Bowles Environmental Protection Specialist brock.bowles@state.co.us