



STATE OF
COLORADO

Simmons - DNR, Leigh <leigh.simmons@state.co.us>

C1980007, West Elk Mine, RN-07, Second Adequacy Letter

1 message

Simmons - DNR, Leigh <leigh.simmons@state.co.us>
To: "Welt, Kathy" <kwelt@archcoal.com>

Tue, Feb 5, 2019 at 4:22 PM

Attached

Leigh Simmons
Environmental Protection Specialist



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

P 303.866.3567 x 8121 | C 720.220.1180 | F 303.832.8106
1313 Sherman Street, Room 215, Denver, CO 80203
leigh.simmons@state.co.us | <http://mining.state.co.us/>



Adequacy letter, West Elk, RN-07, 2.pdf
125K



COLORADO

**Division of Reclamation,
Mining and Safety**

Department of Natural Resources

1313 Sherman Street, Room 215
Denver, CO 80203

February 5, 2019

Kathy Welt
Mountain Coal Company, LLC.
5174 Highway 133
Somerset, CO 81434

**Re: West Elk Mine (Permit No. C-1980-007)
Permit Renewal No. 7, (RN-07)
Second Adequacy Review**

Dear Ms. Welt,

The Colorado Division of Reclamation, Mining and Safety (Division) has completed the review of materials submitted by Mountain Coal Company, LLC (MCC) in support of the RN-07 application.

An initial query was made of the Applicant Violator System (AVS) database, using the officers and directors information that was updated with MR-416, on March 1, 2016. The report raised no issues. Further queries will be made throughout the permitting process.

The following questions and comments pertain to the remainder of the Permit Application Packet (PAP). Items 1-12 were identified in the initial adequacy review letter, dated May 3, 2016, and the response has been sufficient. New items begin at 13:

Rule 2.03.4 – Identification of Interests

1. [Exhibit 1]
2. [Exhibit 2]
3. [Exhibit 3]

Rule 2.05.2 – Operation Plan – Estimated Area for Life of Operation;

Rule 2.05.3 – Operation Plan – Permit Area

4. **[Sections 2.05.2 and 2.05.3]**
5. **[Maps 50-52]**
6. [Table 28]
7. [Table 32]
8. [Maps 54, 54A and 54B]
9. [Page 2.05-77, paragraph 3]



Rule 2.05.6 - Mitigation of the Impacts of Mining Operations

10. [Exhibit 38]

Rule 2.10 – Maps and Plans

11. [Digital boundaries]

Stipulations

12. [ST 7-1]

Rule 2.05.4(2)(g) – Reclamation Plan, and Rule 4.07 – Sealing of Drilled Holes and Underground Openings

13. Page 2.05-87 of the PAP provides a description of “Drill Hole Sealing”, but does not contemplate the abandonment and sealing of Mine Ventilation Boreholes (MVBs) specifically.

Guidance for gas well abandonment has been developed by the American Petroleum Institute (API), and was used to inform an unofficial guidance document developed by the Division in 2004. The 2004 document has not been formally adopted by the Mined Land Reclamation Board, but it is available in the laserfiche document archive (a copy can be provided on request). The following summary may be helpful:

At a minimum, all holes must be abandoned in accordance with Rule 4.07.3. If the MVB is completed through an aquifer(s), the sealing must be completed in accordance with 4.07.3(2) and the entire depth of the blank casing should be sealed using cement (from the bottom to within 10 feet of the surface). In situations where a bottom to top cement plug is not specifically required by regulation, the Division recommends that a minimum of 50 feet of cement plug be placed at the lowest point inside the solid casing, above the perforated interval. The cement plug should be a minimum of 50 feet in length and should extend a minimum of 50 feet above the zone to be protected. An inflatable packer, bridge plug, or other mechanical plug should be used as a foundation for the cement plug.

The closure recommendation over and above that required by 4.07.3(1) is to provide protection against post-closure methane migration, which must be prevented. If post-closure methane migration is found to have occurred, additional work to prevent and mitigate damage would likely be required.

The Division recognizes that subsidence associated with longwall mining is likely to compromise the integrity of the MVB, and that collapse or shearing of the casing is to be expected. The Division recommends that the total depth of the

MVB be measured prior to initiating plugging procedures to determine if the casing has been damaged. If there is found to be damage that prevents the packer or plug from being set at the proposed depth, then a bridge plug/packer and cement plug should be placed at the lowest point possible in the well, as close to the perforated interval as practicable.

Since the Division has previously accepted a large number of plugging and abandonment reports for MVBs already sealed at the West Elk mine, there is no concern that the practice of MCC or its contractors is non-compliant.

Please update the text on page 2.05-87 with a paragraph specifically addressing the plugging and abandonment of MVBs.

14. **Please consider adding a table(s) to the PAP which summarizes the location and status of all Drilled Holes.** The table(s) should be updated as new holes are proposed and revised through future revisions, as old holes are plugged and abandoned, and as reclaimed holes (and associated pads) go through phases of bond release.

The most logical place to put the table(s) may be Exhibit 80, since it/they will effectively summarize information already in that exhibit. Since Exhibit 80 is already very large and challenging to navigate, the table(s) should be identified clearly. Finally, since it is anticipated that the table(s) will be revised frequently, the effective date should be included in the title, e.g. "Drill Hole Summary Table 1, E-seam MVBs; January 1, 2019"

The narrative provided in response to item 13 will be used together with the summary data provided in response to item 14 in order to completely update the relevant section of the Reclamation Cost Estimate (RCE), with the goal of minimizing confusion during future permitting. Where a hole has been previously permitted but was never constructed, it does not need to be included in the RCE as long as its status is made explicit in the table(s).

The proposed decision due date for RN-07 is March 15, 2019.
Please feel free to contact me with any questions or comments.

Yours sincerely,



Leigh Simmons
Environmental Protection Specialist