



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

1313 Sherman Street, Room 215  
Denver, CO 80203

May 3, 2019

Mr. Tom Bird  
GCC Energy, LLC  
6473 County Road 120  
Hesperus, CO 81326

**Re: King Coal Mine, Preliminary adequacy letter for TR-27**

Dear Mr. Bird:

The Division received your two submittals for TR-27 in November 2018 and March 2019. We found this TR complete on April 3, 2019. We ask that you and your staff respond to the following adequacy items.

**Section 2.05**

1. Per Rule 2.05.3(8), please update Section 2.05.3 to include a discussion regarding the lower refuse pile expansion proposed under TR-27. Per the rule, this section should explain the construction, modification, use, maintenance, removal, and reclamation of coal processing and non-coal waste removal, handling, storage, transportation and disposal areas and structures in the permit area. Note that in the currently approved PAP, this discussion is provided in Section 2.05.3.
2. Section 2.05.4 includes a discussion of fill material (aka, sub-soil). Has GCC performed volume calculations for this material? This is necessary for the Division to produce an accurate Reclamation Cost Estimate.
3. Section 2.05.6 needs to be updated to reflect any changes with Appendix 11.

**Appendix 10**

4. The cover pages for Appendices 10(4), 10(4A) and 10(4B) appear to have been mislabeled as 4(4), 4(4A) and 4(4B). Please update these cover pages.
5. Page 1 of the Stoner report references the Division of Minerals and Geology; please update to Division of Reclamation, Mining and Safety. Also on this page, there is a reference to Rules 2.05(8), 2.50(9) and 2.05(10). Should these be 2.05.3(8) and 2.05.3(9)? If so, please update the report.
6. Per Rule 4.10.1(1)(a), coal mine waste banks must be constructed in accordance with Rules 4.09.1 and 4.09.2. Rule 4.09.2(2)(d) includes underdrain minimum size criteria. The proposed underdrain extension does not meet this criteria. However, the Division approved an alternative sizing with the currently approved underdrain for the King I Refuse Pile based upon the information provided in Appendix 10(1) in the current PAP. Per Rule 4.10.3(5), please provide additional information that ensures the proposed underdrain size is sufficient to alleviate water within the entire refuse pile, including the existing pile and the proposed expansion.



## Appendix 11

7. Cover sheets for Appendix 11 documents (SEDCAD runs) appear to be inaccurate. Please revise. Consider including the drainage report as 11(1) [this is current situation] and the SEDCAD runs as 11(2) or 11(3), as appropriate.
8. In Appendix 11, the treated water SEDCAD run should include the ponds to illustrate that they provide the required capacity (per Rule 4.05.6).
9. The treated water design should be for the 10-year and 25-year events (as it is in current Appendix 11). Alternatively, explain why the 100-year event is used. (This is also per Rule 4.05.6.)
10. The structures in the SEDCAD runs should match the structures on the appropriate maps. For example, Reach 8 on Map King I-007 is not included in the treated water SEDCAD model.
11. There is a SEDCAD model for the west clear water ditch. Please explain why there are no models for other ditches for the post-reclamation conditions.
12. Rule 2.05.6(3)(a) states: *"Each application shall contain a detailed description .. of the measures to be taken during and after the proposed surface or underground mining activities ... to ensure the protection of ... The quality of surface and ground water ..."* The drainage management plan has changed considerably due to the new plan for the refuse area at the King I site. Therefore the drainage report, Appendix 11(1), should be updated also. The plan should discuss the drainage plan prior to reclamation as well as the plan for after reclamation. Some of the parameters discussed in the drainage report may stay the same, but others may need to be revised. New figures with drainage areas and structures should be created to replace the old ones. Figure 2 of the current report, for example, no longer matches the plan for open ditches, culverts, and other features at King I.
13. Does the upper (flatter) part of the new refuse pile drain to the back? (This is implied by the arrow next to "Min 1%" on the N-S Section.) If so, what ditch does it drain to? This should be discussed in the updated drainage report.

## Maps

14. Please confirm the location of the Topsoil Borrow Area on Map King I-007. There is no polygon (outline) of the area on the map. Per Brock Bowles, there is also some uncertainty regarding the history and management of this area. Has material been borrowed from this area in the past? Will it be protected from waste material?
15. The profile of the proposed haul road expansion has been provided under Map King I-007B, which meets all requirements found under Rule 4.03.1. However, the proposed profile only shows the proposed section of the haul road expansion and there is no profile provided for the current haul road that will connect to the new road. Please provide a profile for the entirety of the haul road on Map King I-007B and update Map King I-007 showing the corresponding transect.
16. On Map King I-007 there is a series of stations that begin near the West Pond and extend southward, up gradient. It is unclear which ditch these stations are associated with. Please edit the map or explain the purpose of these stations.

17. Map King I-007C includes N-S and E-W sections. The locations of these sections should be shown on a plan view (perhaps one of the other maps).
18. The revision history for the Final Contour Map (Map King I-011) is confusing. Per Division records, the most recent approved version was August 2016, resulting from TR-24. However, the map in the TR-27 submittal has RN-07 from 2017 listed in the revision history. Please explain if this is an error or not.
19. On Map King I-011, the ditch along the north side of the new road dead ends. Please revise this map or explain why it dead ends.

If you have comments or questions, please contact me at [Rob.Zuber@state.co.us](mailto:Rob.Zuber@state.co.us) or 303.866.3567 (x8113).

Sincerely,

A handwritten signature in blue ink, appearing to read "Robert D. Zuber".

Robert D. Zuber, P.E.  
Environmental Protection Specialist II