



Tom Bird
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April 8, 2020

**Re: King I and II Mine, C1981-035, Technical Revision No. 29
Preliminary Adequacy Review**

Dear Mr. Bird:

The Division has reviewed GCC's submittal for TR29 application

Please find the Division's adequacy concerns:

- 1) In King I Mine Section 2.03.8, why did the affected area for TR-22 drill holes decrease? The same question is applicable for this page in King II Section 2.03.8.
- 2) In King I Mine Section 2.03.8, it appears that the change in disturbed area may be incorrect. It was increased 2.15 acres, but the stated increase on page 3A in Section 2.05.3 is 2.51 acres. On Page 6 in Section 2.05.3 (last paragraph), please check the value of 2.15 acres. In one or the other places the numbers may have been transposed. Please clarify that the proposed disturbed acreage remain consistent.
- 3) Regarding King II Mine Section 2.04.6 page 8, is the page number correct? Does GCC Energy intend to delete the section Refuse Pile Chemistry in the existing PAP, which is currently on page 8?
- 4) On page 3A in Section 2.05.3, please provide more detail to describe where the new spoil material will be stored. Please show the location on a map.
- 5) Page 3A in Section 2.05.3, please state if the pond size did or did not change with the increased disturbed area.
- 6) On Page 5 in Section 2.05.3, text regarding sampling runoff from SAEs has been removed. Please explain. Also on this page, please explain if the two 24" culverts are C22.



The following questions pertain to Appendix 11(2)

- 7) In the Drainage Basin ID Table, please explain why the facility areas are described as forest. Are curve numbers of 80 appropriate?
- 8) Related to the Ditch Capacities table, please address the following questions and comments.
 - a) ID-7 has a bottom width but a triangular shape.
 - b) It is unclear if ID-7 flows to ID-8 (per Structure Networking), Basin E1 (per “Station” column in Ditch Capacities table), or Culvert C21 (per Map King II-007A)? Please check and edit as necessary.
 - c) ID-8 has a bottom width but a triangular shape.
 - d) Where is ID-9 on Map King II-007A? Please revise text and/or map, as necessary.
 - e) For ID-9, the depth in the SEDCAD printout (0.28’) does not match the required depth in the Ditch Capacities table (0.82’). One of these appears to be a typo.
- 9) Related to the SEDCAD run that includes Pond 1, DRMS identified some apparent errors. When comparing the Structure Networking table and Map King II-007A, it is unclear how some model elements fit together. For example, is Structure #50 culvert C21, or is it ditch ID-5A? It also appears there are mistakes with the portion of the model that is not near the proposed portals. For example, Structure #44 may be culvert 17A or it may be ID-0. Please check the elements of the model and how they link together, and edit as necessary.
- 10) Related to the SEDCAD utility runs, please explain why channels L’, M’, and N’ are not included in the SEDCAD run with the other CWD-2 channels. Also, there appear to be discrepancies (possibly typos) in the utility runs when compared to the Ditch Capacities of the current PAP. Please explain the following, and revise as necessary.
 - a) For segment L’ of CWD-2, the bottom width and slope have changed significantly.
 - b) For segment M’ of CWD-2, the slope has changed significantly.

- 11) Maps: There are two labels for C21 on Map King II-007A. One points to a culvert under the Basin Ramp, and the other points to a ditch west of the large topsoil pile. Please explain and revise the submittal, as necessary. Note that the Culvert Capacities table lists the length of C21 as 40 feet. Also, do the font colors (red for one C21 label and black for the other) have significance?

The following comments pertain to Section 4.03.2 – Access Roads

4.03.2(1) – General Requirements

All information required by this section of the Rule has been provided. Please refer to Sections 2.05.3 of King's PAP and proposed page Section 2.04.6, page 8. While all general requirements have been met, it was observed that Section 2.05.3 of King's PAP needs to be updated to include discussions regarding the new access road.

- 12) Please update Section 2.05.3 to include discussion of the new access road to King III portals.

4.03.2(3) – Design and Construction

4.03.2(3)(e)(viii) – Per this Rule, “Embankment slopes shall not be steeper than 1.5h:1v, except that if the embankment material is minimum of 85 percent rock, slopes shall not be steeper than 1.35H:1v if it has been demonstrated to the Division that embankment stability will result.” As shown on proposed Map King II-007M, upper portions of the access road embankment exceeds the maximum allowable slope of 1.5h:1v and 1.35h:1v (85% rock) with a slope 1.33H:1V.

- 13) As required by this Rule 4.03.2(3)(e)(viii), please provide a demonstration to the Division that embankment stability will result.

4.03.2(7) – Reclamation

When reviewing King's proposed Section 2.04.6, page 8 as well as others, it states that “[r]eclamation for these areas is discussed elsewhere in this document.” However, the Division was unable to find any information in regards to the reclamation of not only the proposed access roads, but currently approved roads as well in the approved King PAP and proposed pages.

- 14) Please update Section 2.05.4 – Reclamation Plan to include discussion regarding the reclamation of roads at the King Coal Mine.

King III Portals

King has provided limited information in terms of the proposed King III portals. Additionally, the Rules have no performance standards for the construction of portals. The proposed portals are shown on proposed maps King II-005, King II-007, and King II-007A. A general discussion of the development of the King III portals can be found in proposed Sections 2.04.6, 2.04.9, 2.04.10, 2.04.11, 2.05.3, and 2.05.4. King proposes to excavate a high wall cut and using the cut material to provide a bench for the portal area. This is same method used in the construction of the King II portals per the King PAP.

Per Rule 2.05.3(3)(a) - Mine Facilities, "A description, plans, and drawings, describing the location, (and) construction...of mine support facilities in the permit area including all buildings, structures, utility corridors and other support facilities including but not limited to those listed in 4.04." Additionally, plans shall "...demonstrate compliance with 4.04".

15) Please provide additional information in regards to the design and construction of the King III Portals that would ensure long term stability and satisfy Rule 2.05.3 and subsequent Rule 4.04.

Please provide additional information as requested by this review. If you have additional questions, please contact me.

Sincerely,



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