



INTEROFFICE MEMORANDUM

To: Janet Binns

From: Rob Zuber *Rob D. ZL*

Subject: King Coal Mine, Hydrology review for TR-29

Date: March 24, 2020

I have the following adequacy items related to the submittal for TR-29 by GCC Energy. (*Items in italics are probably not adequacy items, but are items that require DRMS attention, possibly in the midterm findings or next renewal.*)

Text

- *Does the current PAP (prior to TR-29) have an Appendix 11(2)? It is in Laserfiche but not in the TOC. Should it be archived?*
- 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.
- 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. In one or the other places the numbers may have been transposed. Please check these numbers.
- 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?
- On page 3A in Section 2.05.3, more detail should be given to describe where the new spoil material will be stored. Also, is this shown on a map?
- Page 3A in Section 2.05.3 should state if the pond size did or did not change despite the increased disturbed area.
- 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.
- On Page 6 in Section 2.05.3 (last paragraph), please check the value of 2.15 acres, as discussed above for Section 2.03.8.



Appendix 11(2)

- In the Drainage Basin ID Table, please explain why the facility areas are described as forest. Are curve numbers of 80 appropriate?
- Related to the Ditch Capacities table, please address the following questions and comments.
 - ID-7 has a bottom width but a triangular shape.
 - 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.
 - ID-8 has a bottom width but a triangular shape.
 - Where is ID-9 on Map King II-007A? Please revise text and/or map, as necessary.
 - 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.
- 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.
- 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.
 - For segment L’ of CWD-2, the bottom width and slope have changed significantly.
 - For segment M’ of CWD-2, the slope has changed significantly.

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) signify anything?