



"Safety as a Value"

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GCC Energy, LLC  
6473 County Road 120  
Hesperus, CO 81326

June 1, 2020

State of Colorado

Division of Reclamation, Mining & Safety  
1313 Sherman St., Room 215  
Denver, CO 80203

Attn: Janet Binns, Environmental Protection Specialist III

Re: GCC Energy, LLC, King II Mine  
CDRMS Permit # C-1981-035  
Technical Revision No. 29 (TR-29 AR #2) Adequacy Review #2 Response

Ms. Binns:

In response to your letter of May 27, 2020, "King I and II Mine, C1981-035, Technical Revision No. 29, Preliminary Adequacy Response Review and Adequacy No. 2", please consider the following responses. Division concerns are shown in italics, GCC Energy responses are shown in bold font.

*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.*

*GCC Energy provided a response on 5/8/2020, that the two 24" culverts referred to on Section 2.05.3 page 5 are labelled C22 on map King II-007A. As suggested, text has also been added to Section 2.05.3 page 5.*

*However, the Division has the remaining concern; in the response to our PAR (dated 8 May 2020), GCC Energy did not address the following. On Page 5 in Section 2.05.3, the currently approved PAP contains the following text: "GCC Energy, LLC commits to sampling any discharge from this area for Total Settleable Solids whenever practical (when GCC Energy personnel are on-site during runoff event)." Please explain why this text was removed.*

**GCC Energy, 06/01/2020: As suggested, the requested text has been added to King II 2.05.3 page 5, June 1, 2020 (TR-29 AR #2).**

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. GCC Energy's 05/08/2020 response; GCC believes that the new SEDCAD analysis and the various associated tables should have been incorporated into existing Appendix 11(1). Please disregard Appendix 11(2) as provided in the initial TR-29 submittal. Revised Appendices 11(1) thru 11(1G) are attached with this submittal. The Ditch Capacities Table, as well as other tables and maps, have been revised.
- b) For segment M' of CWD-2, the slope has changed significantly.

*GCC Energy, 05/08/2020: The Ditch Capacities Table, as well as other tables and maps, have been revised and are now located in Appendix 11(1A).*

*In the response to DRMS PAR and in GCC's submittal of May 13, 2020, GCC Energy did not fully explain the following. In the SEDCAD model output pages, the channels L', M', and N' are not included in the SEDCAD run with the other CWD-2 channels; rather, they are analyzed in separate utility runs. The primary issue related to this: please identify the source of the design flows for these utility runs?*

*GCC's May 13, 2020 response: Please consider the following responses: 1. GCC the revised SEDCAD model easier to understand. The SWS flows and corresponding structures networks, are easier to follow when model separately (using utility runs to combine). "Safety as a Value" 2. Combining everything into one model would result in a large model with a complex structure network that would produce an output of equal complexity. 3. GCC wanted to preserve the current hydrology report as much as possible and only redesign/replace the drainage reports affected by TR-29.*

**GCC Energy, 06/01/2020: In addition to the three response comments listed in the previous paragraph from May 13, 2020, we have prepared an addition table to be included in Appendix 11(1A) which we believe clarifies the "utility runs" questions. Notes on the 'Utility Runs' describe the flows of utility runs CWD-2 Station 22+20 to 25+95 (L') As-Built, CWD-2 Station 25+95 to 26+61 (M') As-Built, and CWD-2 Station 26+61 to 31+87 (N') As-Built, and provide additional detail regarding the sources of values such as the 'Pond Discharge' flow quantities.**

**In addition, in an effort to update the Permit File found in the CDRMS laserfiche system, please consider the following:**

**Upon approval of TR-29, please replace the various documents in the King II PAP labelled as "Appendix 11(1) \*.\*", with the attached revised "King II Appendix 11(1) King II Hydrology Analysis, June 1, 2020 (TR-29 AR #2)"**



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**Also, upon approval of TR-29, please remove from the King II PAP:**

**Superseded "KII Appendix 11 – Hydrologic Designs, Paluso 05/2006**

**Superseded "KII Appendix 11(2) On Site Ditches & Water Routing (Soils)-  
Paluso (TR-15) 2009 11 20**

**Superseded "KII Appendix 11(4) East and West Clean Water Ditch  
Verification 2010 03 15**

Please find enclosed:

- King II Permit Cover Page, June 1, 2020 (TR-29 AR#2)
- King II Section 2.05.3 page 5, June 1, 2020 (TR-29 AR#2)
- King II Appendix 11(1) King II Hydrology Analysis, June 1, 2020 (TR-29 AR#2)

Certified copies of the maps will be submitted once Division reviews have been completed (prior to final approval).

Please contact Tom Bird at 970.385.4528 x 6503 or 970.769.1160 (cell) with questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tom Bird'.

Tom Bird  
GCC Energy, LLC  
tbird@gcc.com