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May 7, 2021

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. 30 (TR-30) Preliminary Adequacy Review Response
Old Barn Staging Area & Access Road

Ms. Binns:

In response to your letter of April 23, 2021, "King I and II Mine, C1981-035, Technical Revision No. 30 Preliminary Adequacy Review", please consider the following responses. Division concerns are shown in italics, GCC Energy responses are shown in bold font.

Although the barn yard area and the ranch road are pre-existing, since GCC is proposing to utilize these features for mining related support activities, the Division has the following concerns:

Section 4.03.2 – Access Roads: Although the ranch road is pre-existing, since it is proposed to be used for mine related activities, it needs to comply with Rule 4.03.2.

1) The existing ranch road that GCC proposes to utilize as an access road is mentioned on King I Mine, Section 2.05.3 page 4, however, no detail is provided regarding this road. The ranch road is also portrayed on King II-007 Map, however, the scale of this map does not provide adequate detail to assure that the Ranch road/Access road will comply with Rule 4.03.2. Please provide additional detail that clearly shows road width, road grade, and any surfacing needed to demonstrate compliance with Rule 4.03.2.

GCC Energy, 05/07/2021: The pre-existing ranch road is to be used temporarily as the access point for construction of a "Low Cover Crossing" tunnel in East Alkali Gulch (located within OSMRE Permit CO-0106C). Additional details concerning access road use, road grade and road surfacing of the access road are supplied on revised King II Mine, Section 2.05.3 page 3C. Access road profile views, road grade, drainage details & controls are shown on new map, King II-007N, "Ranch (Barn) Road Profile, TR-30", included with this submittal. King I Section 2.05.3 page 4 has been revised to refer readers to King II 2.05.3 page 3C for Ranch road/Access road details and to King II 2.04.7 page 6A for drainage control details.

2) Based upon King II-007 Map, it appears that several segments of the ranch road may not within grade limits of Rule 4.03.2.(3). Using the submitted map King II-007, the Division measured;

*Segment of Ranch road from 7600 ft. elev. to 7500 ft. is roughly 20%.
Segment of Ranch road from 7500 ft. elev. to 7400 ft. elev. is approximately 15.1%. Segment of Ranch road from 7400 ft. elev. To 7300 ft. elev. equals approximately 15.1%. Please provide a more detailed map that demonstrates how the ranch road will be in compliance with Rule 4.03.2(3)*

GCC Energy, 05/07/2021: New Map King II-007N, "Ranch (Barn) Road Profile, TR-30", which depicts measured road grade of the existing ranch road is provided with this response.

3) *If the current grade of the ranch road is unable to comply with Rule 4.03.2(3), please provide measures that GCC will employ, or modifications to the road to assure compliance.*

GCC Energy, 05/07/2021: As captured in the revised King II Section 2.05.3 page 3C, GCC will be taking the following measures to ensure compliance with Rule 4.03.2:

- In order to prevent further erosion and to protect the hydrologic balance, road drainage will be directed along the existing scoured surfaces toward filter check dams using straw waddles and silt fences that reduce overland flow velocity and trap sediment.
- Water bars will be reestablished at key grade breaks to route water off of the road. Waddles and silt fences will be strategically placed between water bars in areas where erosion is possible.
- The road surface will be improved using road base and gravel to allow for safe and efficient travel of articulated haul trucks, concrete trucks and various support pickup trucks. It will be re-shaped and cross-sloped into the toe of the hill and compacted. Gravel will be placed in soft areas that may turn slippery during inclement weather conditions.
- Manufacturer's recommended ascent and decent speed limits for maximum grades will not be exceeded. Equipment rating details and manufacturer specifications are included in Appendix 10(3), "Low Cover Crossing Access Road Vehicle Grade and Speed Ratings (TR-30)".
- No additional disturbance is proposed by GCC Energy.
- There are no stream crossings along the access road so no culvert installation is proposed at this time.
- Travel will be restricted to one-way along the narrowest segments, to be managed using radio communication control.
- Road surfaces will be kept damp with water and dust control treatments while in use.

4) *How will runoff will be managed from the ranch road and the laydown area? A brief description is provided on King I Section 2.05.3 page 4, but no detail of how the runoff will be managed was included. Please provide additional detail as to how GCC will manage runoff in order to meet the requirements of 4.05.2(1) or 4.05.2(3).*

GCC Energy, 05/07/2021: Text in King I Section 2.05.3 page 4 has been revised to refer to King II Section 2.04.7 page 6A, which addresses runoff management from the ranch road and the the laydown area. Runoff from both the ranch road and laydown area will be directed toward filter check dams using straw waddles and silt fences to reduce overland flow velocity and trap sediment. Silt fences will be constructed with the same Mirafi 140N geotextile fabric utilized at King I and King II surface facilities. Water bars will be reestablished at key grade breaks to route water off of the road. Previously mentioned controls will be strategically placed between water bars in areas where erosion is possible.

Possible locations for the described sediment control measures are included in new map King II-007N provided with this submittal. Locations may change based on onsite observations of actual or potential drainage flow paths. A small area of proposed disturbance has been removed to help facilitate drainage in the laydown area. Maps King II-005, King II-006 and King II-006A have been revised to depict this change.

Please find enclosed:

King I 2.05.3 page 4, May 7, 2021 (TR-30 PAR)
King II Table of Contents pages iii & iv, May 7, 2021 (TR-30 PAR)
King II 2.04.7 page 6A, May 7, 2021 (TR-30 PAR)
King II 2.05.3 page 3C, May 7, 2021 (TR-30 PAR)

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King II Appendix 10(3) Low Cover Crossing Access Road Vehicle Grade and Speed Ratings
King II-005 Mine Plan (TR-30 PAR) 2021 05 07
King II-006 Soils, Veg, Land Use (TR-30 PAR) 2021 05 07
King II-006A Soils, Veg (TR-30 PAR) 2021 05 07
King II-007N, Ranch (Barn) Road Profile (TR-30) 2021 04 28

Please contact me at 505.238.8272 or svance@gcc.com if you have any questions or require any additional information.

Sincerely,

A handwritten signature in blue ink that reads "Sarah Vance".

Sarah Vance
Environmental Manager
GCC Energy, LLC