



January 28, 2020

Timothy McCarthy
Schedio Group LLC
808 9th Street
Greeley, CO 80631

**RE: Keenesburg No. 2 Mine (Permit No. M-2019-058)
Adequacy Review #1**

Dear McCarthy:

On November 27, 2019, the Division of Reclamation, Mining and Safety received your 112 Construction Materials Reclamation Permit Application package for the Keenesburg No. 2 Mine, File No. M-2019-058. The application was deemed complete on December 10, 2019. A review of the permit application determined that the following items must be addressed and/or received before the Division can approve the application:

Rule 6.2.1(2)(b) – Maps and Exhibits

1. Maps must be prepared and signed by a registered land surveyor, professional engineer or other qualified person. The maps submitted with the application were not signed. Please submit signed copies of the maps.

Rule 6.4 - Specific Exhibit Requirements - 112 Reclamation Operation

6.4.1 EXHIBIT A - Legal Description - Adequate as submitted.

6.4.2 EXHIBIT B - Index Map – See item 1 above.

6.4.3 EXHIBIT C - Pre-mining & Mining Plan Map(s) of Affected Lands

2. Please submit a map with setbacks clearly labeled for each structure.

6.4.4 EXHIBIT D - Mining Plan

3. On page D-6 and D-7 it states that the mining depth will be 30-40 feet below surface or to a depth to ensure that the mine's economic objectives are attained. On pages E-10, G-1 and G-7 it states mining is anticipated to range from 20 feet to as much as 30 feet. On page G-8 it states the maximum mining depth to be less than 50 feet. Please clarify the proposed mining depth so an accurate reclamation cost estimate can be calculated.
4. On page D-12 it states the mine will operate on a single 12 hour shift, seven days a week.



On page D-28 it states that operations are anticipated to operate on a 24-hour basis, seven days a week. Although the Division does not have jurisdiction over operating hours, this information was included in the permit should be clarified for consistency.

5. Please provide a discussion as to how setbacks from structures are going to be maintained in the field to ensure equipment operators do not damage structures, especially non-visible, underground structures.
6. It states on page L-3 that concrete foundations/footers will be demolished to 18 inches below ground surface, but it is unclear from the facilities description which facilities will have concrete footers and/or foundations. Please add to the descriptions of each item if it is portable, if it has a concrete foundation or pad and the dimensions of all proposed concrete pads and foundations.
7. It states on page D-27 that thickened sludge will be dewatered into a filter cake that will be stockpiled at the plant and eventually moved to the waste stockpile. What are the anticipated properties (physical and chemical) of the filter cake? Are there any potential hazards of the filter cake?
8. On page D-27 it states that during upset conditions, sludge will be pumped from the clarifier to the holding cells where it can dry out. Please explain what is meant by upset conditions and why the sludge may be pumped to the holding cells. What are the anticipated properties (physical and chemical) of the wet and dried sludge? Are there any potential hazards of the wet and dried sludge?
9. Is the clarifier unit discussed on page D-28 and the water treatment facility shown on Figure D-2 the same facility or are they different units? If they are different please include a description of the water treatment facility as it is not described in the text.
10. Please provide a geotechnical stability analysis for the final plant waste pile. Will any of the plant waste be used as backfill in the mined areas?

6.4.5 EXHIBIT E - Reclamation Plan - Adequate as submitted.

6.4.6 EXHIBIT F - Reclamation Plan Map – See item 1 above.

6.4.7 EXHIBIT G - Water Information

11. On page G-6, Table G-2 shows that Wells 75234 and 75237 are 32 and 30 feet deep respectively. Mining is anticipated to be 30-40 feet deep (or as much as 50 feet) within 300 feet of these wells. CSC states on page G-7 that it does not anticipate significant impact to these wells but does not offer any findings or support of this determination. Please provide proof that mining operations will not impact Wells 75234 and 75237 which are shallower than the proposed mining depth. The discussion should include current production rates, a monitoring program for the mine life, a mitigation program in the event the wells are impacted, a value that initiates the mitigation program and an agreement with the owner of the wells stating they agree with the monitoring and mitigation plan.

6.4.8 EXHIBIT H - Wildlife Information

12. On page H-2, it states that CSC has not received comments from Colorado Parks and Wildlife (CPW) regarding species of concern. Please submit CPW comments to DRMS

for inclusion into the permit when they are received.

13. On page H-3 it states that CSC will consult with USFWS and CPW to determine mitigation measures. Please commit to submitting USFWS and CPW comments and mitigation measures for inclusion into the permit.

6.4.9 EXHIBIT I - Soils Information - Adequate as submitted.

6.4.10 EXHIBIT J - Vegetation Information - Adequate as submitted.

6.4.11 EXHIBIT K - Climate - Adequate as submitted.

6.4.12 EXHIBIT L - Reclamation Costs

14. CSC has committed to a five year monitoring and maintenance period for reclaimed areas. The proposed reclamation cost estimate includes the costs for 251 acres of mine pit disturbance. The first five years of the mine plan encompasses 528 acres. The Division has two suggestions to address this issue:
 - a. Post a bond for the acres included in the first five years of the mining plan and when mining activities reach the proposed limit, contact the Division about either a surety reduction for the reclamation completed or a surety increase,
 - b. If CSC would like to have a phased bond release schedule, a more detailed map is needed that includes delineating bond release areas, a schedule of activities for each area, locations of proposed haul roads that will remain (for life of mine) in reclaimed areas, growth medium pile locations for haul road reclamation,
15. A cost estimate for 21 acres for haul roads was included in the estimate, but no details of the road location or dimensions were included. Additional information is needed to calculate the cost estimate (can be same map):
 - a. A map showing the location and dimensions of largest extent of proposed haul roads,
 - b. A map showing the locations of growth medium piles (for haul road reclamation) along with volumes,
16. The Division has not completed a full review of the proposed cost estimate and will have additional questions when the other adequacy questions included in this letter have been resolved.

6.4.13 EXHIBIT M - Other Permits and Licenses (Statement Req'd) - Adequate as submitted.

6.4.14 EXHIBIT N - Source of Legal Right to Enter - Adequate as submitted.

6.4.15 EXHIBIT O - Owner(s) of Record of Affected Land and Substance to be Mined - Adequate as submitted.

6.4.16 EXHIBIT P - Municipalities Within Two Miles - Adequate as submitted.

6.4.17 EXHIBIT Q - Proof of Mailing of Notices to Board of County - Adequate as submitted.

6.4.18 EXHIBIT R - Proof of Filing with County Clerk and Recorder - Adequate as submitted.

6.4.19 EXHIBIT S - Permanent Man-made Structures

17. Vince and Helen Gerkin own the property southwest of S7-T2N-R63W. Their property is within 200 feet of the permit boundary. Please clarify if they own the fence on the property line and if so, a structure agreement for the fence line is required.
18. Structure agreements were included in the application for many, but not all, of the structures located within the permit boundary. Several items are needed for the Division to complete its review of the geotechnical evaluation for the remaining structures:
 - a. Proof (certified mail receipts) that CSC mailed structure agreements to the owners of permanent man-made structures for which structure agreements were not included in the application,
 - b. The data used (preferably electronic) for the geotechnical evaluation for the pipelines and overhead power line structures,
 - c. A discussion/analysis of the geotechnical results,
 - d. Maps showing cross sections of pipelines in relation to the final reclamation contours,
 - e. Depth of pipelines, their diameter and construction,
 - f. Buried pipeline monitoring program (the Division is concerned that small scale strains caused by relief of pre-existing stresses when sand is excavated, may be sufficient to adversely affect the pipelines),
 - g. A description (including cross section diagrams) of haul routes and pipeline crossings for haul trucks and their potential impact on buried pipelines,
 - h. Height of overhead powerlines,
 - i. Potential for damage to powerlines caused by construction equipment (e.g. haul truck with dump bed accidentally left tilted up),
 - j. Measures to protect powerlines from construction equipment

Please note that the decision date for this application is March 9, 2020. If you are unable to provide satisfactory responses to any inadequacies prior to this date, it will be your responsibility to request an extension of time to allow for continued review of this application. Also, the comment period for this application closes on February 25, 2020. Any comments or objections received may initiate new adequacy questions.

If you have any questions, please contact me at (303) 866-3567 ext. 8142 or brock.bowles@state.co.us.

Sincerely,



Brock Bowles
Environmental Protection Specialist

CC: Michael Cunningham, DRMS