



**COLORADO**  
**Division of Reclamation,  
Mining and Safety**  
Department of Natural Resources  
1313 Sherman Street, Room 215  
Denver, CO 80203

July 19, 2021

Angela M. Bellantoni Ph.D.  
Environmental Alternatives, Inc.  
P.O. Box 326  
Canon City, CO 81215

**Re: Salisbury Gladstone LLC; Gladstone Toll Mill; File No. M-2021-007; Designated Mining Limited Impact (110d) Operation Reclamation Permit Application Third Adequacy Review**

Ms. Bellantoni:

The Division of Reclamation, Mining and Safety (Division/DRMS) reviewed the contents of the Salisbury Gladstone LLC permit application adequacy response dated June 30, 2021 for the Gladstone Toll Mill, File No. M-2021-007 and submits the following comments. The Division is required to make an approval or denial decision no later than July 30, 2021 therefore; a response to the following adequacy review concerns should be submitted to the Division as soon as possible.

Please note: The Division's second adequacy letter dated July 12, 2021 stated the decision date for the permit application as June 30, 2021 instead of the current decision date of July 30, 2021. Also, the Division's second adequacy letter comments are included in this letter.

The review consisted of comparing the application contents with specific requirements of Rules 1, 3, 6.1, 6.2, 6.3, 6.4.21, 6.5 and 8 of the Minerals Rules and Regulations of the Colorado Mined Land Reclamation Board for Hard Rock, Metal and Designated Mining Operations. Any inadequacies are identified under the respective exhibit heading along with suggested corrective actions.

#### **1.6 - Public Notice**

1. The Applicant's response is adequate.
2. The Applicant's response is adequate.



3. The Division received comments from the Colorado Division of Water Resources and History Colorado. Please address the comments noted in the letters and revise the application accordingly.

Please commit to complying with the Colorado Division of Water Resources comment, “If the applicant is unable to release this water to the stream system due to water quality concerns, the applicant will need to obtain a substitute water supply plan approved by this office or a plan for augmentation approved by the water court in order to make replacements for the capture and use of this water any time such diversions are not made in priority (i.e., any time there is a call in effect).” and the History Colorado comment regarding the requirements under CRS 24-80 part 13 applying and must be followed if human remains are discovered during ground disturbing activities.

4. The Applicant’s response is adequate. The Objectors formally withdrew the objection on June 9, 2021.
5. The cover letter from Environmental Alternatives, Inc. dated February 1, 2021 states the historic byproducts will be chemically characterized for use in the construction industry as concrete sand or utility installation backfill material. Please provide a detailed explanation of the characterization process for the byproduct material(s). Please include the testing frequency for every individual ore body source to be processed at the proposed mill site and commit to providing the results to the Division prior to the removal of the material from the property.

The Applicant’s response stated Appendix E contains ASTM C33-03 Standard Specification for Concrete Aggregates. The Division reviewed the ASTM standard and agrees the standard is suitable for determining grading and quality of material to be used in concrete.

Please confirm all waste products will utilized in the production of concrete and demonstrate the Applicant is under contract with a concrete company to accept all waste products from the proposed mill. Please explain how the Applicant proposes to monitor, track and report the final use and location of the byproduct materials removed by the Customers.

### **6.3 Specific Exhibit Requirements - Designated Mining Limited Impact (110d) Operation**

The following items must be addressed by the Applicant in order to satisfy the requirements of C.R.S. 34-32-101 et seq. and the Hard Rock Rules and Regulations of the Mined Land Reclamation Board:

### **6.3.2 Exhibit B - Site Description**

6. The Applicant states the soils in the mill area are primarily rock outcrop and historic mine spoils. The soils report provided by the Applicant indicates there is topsoil in portions of the site where the following soil units exist: Cathedral and Resort portion of the "Rock outcrop - Cathedral - Resort Complex" (0 to 14" with O, A, and B horizon), Lone Rock Breece gravely sandy loams (0 to 20" A horizon), and Bendemeere - Tolland complex (0 to 11" O and A horizon). Please explain this discrepancy and revise Exhibit B accordingly.

The Applicant's response stated the soil description is revised to correctly describe the soils within the affected area. The Division did not receive a copy of the revised Exhibit B. Please submit a copy of the revised Exhibit B. Additionally, the original Exhibit B states the mill area as 4 acres instead of 2.1 acres. Please revise the Exhibit B to state the correct acreage value for the proposed mill site.

### **6.3.3 Exhibit C - Mining Plan**

7. The Applicant states approximately 1000 tons or five days' worth of feedstock will be stockpiled on a concrete pad near the feed hopper. The proposed mill is located in a region of known acid producing ore bodies. Please describe how the feedstock pad will be constructed to prevent potential acid generating material from leaving the pad due to wind or water erosion.

The Applicant's response stated the feedstock will be placed in a three-sided storage containment structure constructed of concrete and the three sides will prevent wind erosion. Please describe how the feedstock pad will be constructed to prevent potential acid generating material from leaving the pad due to water erosion.

8. The Applicant states the feedstock and fines storage pads will be 30' x 30'. The proposed mill is located in a region of known acid producing ore bodies. Please describe how the pads will be constructed to prevent potential acid generating material from leaving the pad due to wind or water erosion.

The Applicant's response stated to please refer to the feedstock and byproduct storage containment design figures provided herein. The feedstock and byproduct storage containment figures indicate 40' x 30' dimensions, not 30' x 30'. Please explain this discrepancy the update Exhibit C and/or the figures accordingly. Additionally, the Division recommends the storage pads include sumps and secondary containment features to prevent potential acid generating material from leaving the pad due to wind or water erosion.

9. The Applicant's response is adequate.

10. The Applicant states water with pH lower than 6 and higher than 8.5 will be diverted to a holding tank where it will be neutralized prior to returning to the water circuit. Please explain the process and list all potentially designated chemical used to control the pH of the milling water.

The Applicant provided an acceptable response regarding an upset condition resulting in process water pH being < 6.0, however how water with pH higher than 8.5 will be neutralized prior to returning to the water circuit was not discussed by the Applicant. Please provide a description of the process to neutralize water with pH higher than 8.5.

11. The Applicant states stormwater will be managed with road side ditches or collection sumps from mill structures and stormwater run-off from structures will be directed to the sumps and pumped into the process water system. Please provide typical construction details for the stormwater control structures.

The Applicant's response stated stormwater control structure details are provided in Exhibit C. The Applicant revised Exhibit C to discuss precipitation trapped inside the concrete containment structures for feedstock and byproduct material, however the Applicant did not provide typical construction details for the stormwater control structures. Please provide typical construction details for the stormwater control structures. Additionally, the Applicant removed references to stormwater sumps and pumping stormwater into the process water system. Please explain the reasons for removing these references.

12. The Applicant states the feedstock and byproducts will be characterized by TCLP for hazardous waste determination and then tested against construction material standards for suitability for use in the construction industry. Please provide the construction material testing standards the Applicant is referring too. Additionally, how will the waste products not passing the TCLP test be stored and disposed of properly.

The Applicant's response stated byproduct materials that does not pass TCLP for hazardous waste determination will be returned to the feedstock owner in 55 gallon drums as described in the Milling Agreement Contract (Appendix F). Please explain how the Applicant proposes to monitor, track and report how all byproduct materials removed by the Customers not passing TCLP will be disposed of properly.

13. The Applicant's response is adequate.

14. The Applicant's response is adequate.

15. Please provide a copy of the proposed Closed Circuit Mill Flow Chart for Division review.

The Applicant's response stated the closed circuit mill flow chart is included in Exhibit C and provided herein. Please update the flow chart to include the byproduct storage facility.

16. The Applicant's response is adequate.

#### **6.3.4 Exhibit D - Reclamation Plan**

17. The Division calculated the cost for an independent contractor to reclaim the site based on the information submitted by the Applicant in the application at \$10,500.00. A copy of the Division's bond estimate is attached for review.

18. The Applicant's response is adequate.

#### **6.3.5 Exhibit E - Maps**

19. Pursuant to Rule 6.3.5(2)(b), please update the Mining Plan Map to include the names of owner(s) of record of the surface of the affected area and of the land within two hundred (200) feet of the affected area, identify the owner of the proposed mill location, and the type of structure and owners of record of any permanent or man-made structures within two hundred (200) feet of the affected area.

- a. Please label the overhead power line (and gas line) with the name of the owner of record, Xcel Energy.

The Applicant's response stated the Mining Plan Map was updated to show the names of owners of record of the surface of affected land within 200 ft. and the man-made structures. The updated Mining Plan Maps indicate Black Hills as the owner of the gas line along Stanley Road, however the Applicant submitted a structure agreement with Xcel Energy for the gas line. Please explain this discrepancy and revise the Mining Plan Map and/or Exhibit L accordingly.

Additionally, the owner of Stanley Road was not labeled on the updated Mining Plan Maps. Please update the maps to indicate the Colorado Department of Transportation (CDOT) as the owner of Stanley Road.

20. Pursuant to Rule 6.2.1(b), all maps must be prepared and signed by a registered land surveyor, professional engineer, or other qualified person. Please provide signed copies of the Exhibit E maps.

The Applicant's response stated the maps were prepared and signed by Andy Jesik, a professional engineer. Please provide a signed copy of the Exhibit E.2 Reclamation Plan Map.

21. The Applicant's response is adequate.

**6.3.9 Exhibit I - Proof of Filing with County Clerk**

22. Please provide an affidavit or receipt indicating the date on which the revised application documents were placed with the Clear Creek County Clerk and Recorder in response to this letter. Please note, the application documents are not required to be recorded by the county clerk, however the documents must be available for public review at the county clerk's office.

**6.3.12 Exhibit L - Permanent Man-made Structures**

23. The Applicant's response is adequate.

24. The Applicant's response is adequate.

**6.4.21 Exhibit U - Designated Mining Operation Environmental Protection Plan**

25. The Applicant's response is adequate.

**Rule 8 - Emergency Response Plan**

26. The Applicant's response is adequate.

**Appendix D - Geochemical Waste Characterization Program Results**

27. The Applicant's responses are adequate.

**Appendix F - Toll Milling Agreement**

28. The Toll Mill Agreement discusses only sampling the feedstock material not the byproduct material. In Item #5 the contract discusses getting a Beneficial Use Determination but only if the Processor will take possession of the material. All byproduct materials must be chemically tested to determine what options are available for proper disposal. It does not appear there is any language that prevents a customer of the mill from removing their concentrate and byproduct material from the mill and handling it in any way that suits them best regardless of chemical concentrations.

Please provide a Standard Operating Procedure documenting the frequency of chemical testing, how the samples will be collected, what the samples will be analyzed for and what the results will be compared against (Residual Screening Levels).

Please explain how the concentrate and byproduct materials will be managed on-site prior to and post chemical testing. The Division recommends all material shall be placed on an impervious surface, protected from surface run on/off and protected from the elements.

29. Item #10b in the agreement states the Customer must warrant the feedstock meets Acid-Base Accounting (ABA) results of between -10 and 10. Please confirm the contact condition means the Net Neutralization Potential (NNP) results must be between -10 and 10 tons CaCO<sub>3</sub>/kton and this range is considered to represent potentially acid generating material. The Applicant may want to avoid acid generating material and may want to re-word Item #10b to reflect the material cannot have an ABA NNP result of less than -10 ton CaCO<sub>3</sub>/kton.

Please be advised the Gladstone Toll Mill application may be deemed inadequate, and the application may be denied on July 30, 2021, unless the above mentioned adequacy review items are addressed to the satisfaction of the Division. If more time is needed to complete the reply, the Division can grant an extension to the decision date. This will be done upon receipt of a written waiver of the Applicant's right to a decision by July 30, 2021 and a request for additional time. This must be received no later than the deadline date.

If you have any questions, please contact me at [peter.hays@state.co.us](mailto:peter.hays@state.co.us) or (303) 866-3567 Ext. 8124.

Sincerely,



Peter S. Hays

Environmental Protection Specialist

Enclosure – Bond Estimate

Ec: Jared Ebert; Division of Reclamation, Mining & Safety  
Jeff Carter; Salisbury Gladstone LLC