

May 18, 2022

Mr. Eric Holm
Engineer Manager III
Department of Agriculture and Natural Resources
Minerals and Mining Program
523 E Capitol Ave.
Pierre, SD 57501

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MINERALS & MINING PROGRAM



RE: Loring Quarry Large Scale Mine Permit Application Submission Response

Mr. Holm:

On behalf of Simon Contractors of South Dakota, Inc. (Simon), H2E, Inc. would like to submit the enclosed responses to the Department's May 16th review of the Loring Quarry Large Scale Mine Permit Application. The response package includes:

- Original comments from the Department and Simon's responses;
- Updated Application Package;
 - Hard copy of modified pages.
- USB drive containing an electronic copy of the updated permit application package.

1. Operating Plan, Mining Method and Type, Section 2, page 2 and Reclamation Plan, General Description, Section 1, page 1 (ARSD 74:29:02:04(2)): After reviewing the Mine Plan and Post Mine Contour maps included on the flash drive submitted with the revised mine permit application, I noted that portions of the reduced highwalls were not included as part of the acreage for the Western Quarry Expansion area on the Mine Plan Map. As a result, I modified the shapefile for this area to include the reduced highwall acreage. Also, I notice some of the permitted affected acreage was slightly outside the permit boundary. The acreage also did not include portions of the current access road off of 18 Mile Road and the new Eastern Quarry access road off of the DOT approved access. As a result, I modified the permitted affected acreage area. These changes and the revised acreage for these areas can be seen on the enclosed permit acreage map.

These changes also affected the disturbed acreage mentioned in Mining and Method section of the Operating Plan and the General Description of the Reclamation Plan. I calculated a total disturbance of 65.45 acres for the area west of the Mickelson Trail and 17.11 acres for the area east of the trail for a total disturbance of 82.56 acres. I will be emailing you the revised shapefiles so you can check my acreage figures.

Response: Disturbed acreage was updated after adjusting our shapefiles to ensure the permitted affected area was entirely within the permit boundary and that access roads were included in their entirety. Disturbance east of the trail is 17.1 acres and west of the trail is 65.4 acres for a total of 82.5 acres.

Also, if you refer to the enclosed map, you will note circled area 1 in the northeast corner of the quarry. Besides the existing road and the dust shed, there are no mine facilities activities planned for this area on the map. In my February 14, 2022 letter, I informed you that Simon Contractors needs to ensure that all potential quarry areas, stockpiles, and other mine facilities are identified on the map. If there are areas that will not be disturbed during the life of the mine they should be removed for the permitted affected area. Please clarify the mine facility status of the area inside Circle 1 on the map.

In addition, there is a portion of the existing road outside the permitted affected area in circled area 2 on the enclosed map. If this portion of the road will be used during the mining operation,

please include it in the permitted affected area boundary. If not, please removed that portion of the road from the map.

Response: Road in Circle 1 will be used to access shed during demolition and removal of shed. Road in Circle 2 was removed from the map and will not be utilized.

Finally, the permitted affected area for the mine permit application should be the same as the total disturbance for the mining operation. However, for this application, the total disturbance is 82.56 acres and the total permitted affected acreage is 108.81 acres. One way this can be addressed is by designating the remaining areas for topsoil and overburden storage since there are already stockpile outlines in these areas. You could also designate these areas as associated disturbance for things such as disturbance along the edges of the quarries, road to access stockpiles, or additional stockpile area. Please review the mine plan map and make any adjustments so that the total permitted affected area is the same as the total disturbed area.

Response: The total Permitted Affected Area was reduced to 105.3 acres (78.4 acres west of the trail and 26.9 acres east of the trail). Areas within the Proposed Permitted Affected Area, but outside disturbance areas noted as current quarry, expansion areas, roads, etc., are considered associated disturbance for areas along the edge of the quarry, access to stockpiles or potential additional stockpile areas. The Permitted Affected Area has been updated in the Operating and Reclamation Plans.

2. Operating Plan. Minimizing Adverse Impacts. Water. Section 5, pages 4 through 7 (SDCL 45-6B-41, ARSD 74:29:02:11(10) and 74:29:07:08(2)): In the discussion on onsite chemicals in paragraph 3 on page 7 of this section, please discuss the storage of the blasting agent ANFO on the mine site. Also, in the last paragraph of the Water section on page 7, Simon Contractors mentions that if ground water is encountered, a ground water discharge plan will be submitted to the Department. Ideally, if a ground water discharge plan is required, it should be issued before there are any groundwater impacts. Simon Contractors may want to reword this sentence in the paragraph and contact Matt Hicks of the Surface Water Program in this department (Matt.hicks@state.sd.us) to see what the ground discharge plan requirements would be, if any, for this site. The contact phone number for the Surface Water Program is (605) 773- 3351.

Response: A sentence was added to Page 7, paragraph 3 to state explosives are stored in a portable magazine. The sentence discussing a groundwater discharge plan was removed. It is not anticipated that groundwater will be encountered, but we have reached out to Matt Hicks. Simon will be aware of ground discharge plan requirements, should there be any, prior to beginning the east side expansion.

3. Operating Plan. Minimizing Adverse Impacts. Visual Resources, Cultural and Wildlife. Section 5, pages 8 and 9 (SDCL 45-6B-92(1), (5), and (7)): Please identify which subsections of SDCL 45-6B-92 are being addressed for the Visual Resources on page 8 and the Cultural and Wildlife section on page 9. These subsections were not identified in the May 9 submittal.

Response: SDCL 45-6B-92(1)(5)(7) added to the appropriate sections.

4. Operating Plan. Minimizing Adverse Impacts. Access, Section 5, page 8 (ARSD 74:29:07:12(5), (7), (9), and (10)): In the May 9 response to my question on the "On Property Road" shown on the maps in the mine permit, you appear to be referring to the road at the south end of the quarry off of 18 Mile Road (County Road 316). The road I was referring to is the new road to the eastern quarry expansion area off of the highway shown in circled area 3 on the enclosed map that is between the approved access and the drainage crossing. The only

map submitted with the mine permit application that shows this correctly is the Mine Plan Map. Other maps in the application show a portion of the DOT approved access inside the permit boundary which is on Simon Contactor's land. The maps should be revised to show that the DOT approved access ends at the permit boundary. Also, the new access road shown in circled area 3 on the enclosed map should be clearly shown on the maps.

Response: Maps were updated accordingly.

In addition, the new "On Property Road" is required to comply with each subsection of ARSD 74:29:07:12. Simon Contractor's has addressed subsections 1, 2, 3, 4, 6, and 8 of this regulation for the crossing. However, the remaining subsections (5, 7, 9, and 10) need to be addressed for the new road.

Response: New language was added to address subsections SDCL 45-6B-92(5)(7)(9)(10) subsections.

5. Reclamation Plan, Grading, Section 3, pages 1 and 2 (ARSD 74:29:07:04): In the first paragraph on page 1 of this section, Simon Contractors states highwalls will be blasted and regraded to a 3:1 slope during concurrent and final reclamation. However, in the second paragraph, the company contradicts this by stating the blasted material will be processed and stockpiled for sale. Please clarify Simon Contractor's plans for reducing the quarry highwalls at the end of mining and explain how there will be enough material to reduce the highwalls to a 3:1 slope if the blasted material is going to be processed and sold.

Response: Highwalls will be blasted to a 3:1 slope rather than backfilling to the appropriate slope. For areas in which sloping by means of blasting are not possible (i.e. current west-extent highwall), overburden stockpiles will be used to backfill and recontour the highwall. Language in this section was clarified.

6. Reclamation Plan, Topsoil Salvage, Section 6, page 4 (SDCL 45-6B-7(11), SDCL 45-6B-40 and ARSD 74:29:07:07(5 and 6)): After accounting for the revised acreage mentioned in number 1 and the slight increase from plan view in acreage from the reduced quarry highwall slopes. I came up with a total of 68,720 cy of topsoil (54,490 cy for the western quarry area and 14,230 cy for the eastern quarry area) required for reclamation at an application depth of 6 inches. Please verify my topsoil estimates and let me know if any changes are necessary. Also, please include the volume of the current topsoil stockpile just to the west of the Western Quarry Expansion area (Circled area 4 on the enclosed map) in this section and explain what effect it would have on the total volume of topsoil available for reclamation.

Response: The volume of the current topsoil stockpiles combined is 24,000 cy. This volume was not added back into the topsoil volume calculations, since the areas from which it came are already included in the topsoil salvage calculations. This information was added to Section 6 of the Reclamation Plan.

In addition, in Table 1 on page 4 of this section, a total volume of 128,147 cy of topsoil can be salvaged from the mine area. Using my estimate of 68,720 cy needed for reclamation, this leaves an excess of 59,427 cy which is almost the volume needed for reclamation. Simon Contractors should consider increasing the minimum 6 inch topsoil replacement depth mentioned in the last paragraph on page 4 of this section. Also in this paragraph, Simon Contractors mentions that there will be excess topsoil that will not be used for reclamation purposes elsewhere, but it does not mention whether the excess will be used in final reclamation at the mine site. What is the fate of the remaining excess topsoil?

Response: Topsoil salvage and replacement calculations have been amended. Topsoil replacement depth was increased to 11.5 inches. Any excess topsoil will be spread evenly across the reclaimed area.

Finally, in the first paragraph on page 4, Simon Contractors states the stockpile seed mix will be used on stockpiles when kept long term (6+ months). The department would like to see topsoil stock piles seeded as soon as possible, at least much less than the 6+ month period listed in this paragraph. Please clarify the seeding time table for topsoil stockpiles and explain why the 6+ month timetable was mentioned in this paragraph.

Response: Topsoil stock piles will be seeded as soon as possible, but during a time that favors germination and seedling establishment and when ground conditions allow seeding operations. Plan was amended accordingly.

7. Reclamation Plan, Landowner Consultation, Section 10, page 7 (SDCL 45-6B-44 and ARSD 74:29:06:02): Please note that the mine permit application will not be considered complete until proof of consultation with adjacent landowners South Dakota DOT and the US Forest Service during development of the reclamation plan is received by our office. Proof of consultation is required to be sent to DANR such as certified mail return receipts.

Response: The Reclamation Plan has been mailed to SDDOT and USFS and certified mail return receipts will be provided to DANR, once they are received.

Simon Contractors should also be aware of the following general and technical comments concerning the mine permit application:

1. Reclamation Plan, Revegetation, Section 5, page 3: We noted in the final and topsoil seed mixes in Reclamation Plan Appendix B, we noted that the Custer County RCS office inserted the following statement:

“Annual ryegrass may be added in addition to this full seeding - but must be seeded at a rate at or below 2PLS lbs./ac.

The department would like Simon Contractors to add a statement to the Revegetation section of the Reclamation Plan stating it will add annual ryegrass as a nurse to the seed mixes as a rate of 2PLS lbs./ac or change the word “may” in the statement in the seed mixes to “will.”

Response: A sentence was added to the Revegetation Section stating annual rye grass will be added to the final seed mix at a rate of 2 PLS lbs./ac.

2. Reclamation Plan, Bonding, Section 16, page 8: In Table 3 of this section, Simon Contractors has one item listed as “Place Overburden at 0 inches” with no acreage or Cost for 77 Acres listed. However, in the first paragraph in Section 3 on page 2, the company states approximately 80,000 cubic yards of overburden material will be used for reshaping of the highwall on the west property line, and all excess overburden not used for recontouring and sloping will be placed at a consistent depth over the limestone floor of the quarry. Please include a cost and acreage for the placement of this overburden. Also, please update the reclamation acreage costs to include the acreage changes mentioned in number 1 of this letter and to reclaim the current access road off of 18 Mile Road and the new Eastern Quarry access road off or the DOT approved access.

Response: Reclamation Cost Estimate was updated to include overburden placement costs, updated acreages and a lump sum for the associated disturbance area.

3. ARSD 74:29:01:0 4: The information in the revised mine permit application submitted May 9, 2022 and the information requested in this letter must be filed with the Custer County Register of Deeds office with the original mine permit application which is already on file for public review. Proof of filing, such as a letter from the register of deeds office, is required to be submitted.

Response: The updated mine permit application package has been mailed to the Custer County Register of Deeds and proof of filing will be submitted to DANR, once it is received.

If you have any questions or concerns, please feel free to contact me via email at bmorris@h2eincorporated.com or by phone 307-696-7007.

Sincerely,
H2E, Inc.



Becky Morris, Ph.D.
Senior Environmental Scientist

Enclosure