



**COLORADO**  
Division of Reclamation,  
Mining and Safety  
Department of Natural Resources

**Date:** April 16, 2020  
**To:** Robin Reilley  
**CC:** Jared Ebert and Jason Musick  
**From:** Zach Trujillo  
**RE:** Trapper Mine, DRMS File No. C-1981-010  
Trapper Mine TR-124 Review Memo #2

Robin,

As requested I have reviewed Trapper Mine's (Trapper) responses to the Division's adequacy letter dated March 30, 2020 for TR-124. The following comments are based on Trapper's responses in relation to my adequacy comments in my original memo dated March 27, 2020.

2.05.3(6)

March 27, 2020 Comment:

*(b) As proposed, spoil during the initial box cut for the proposed Nighthawk Pit (N Pit) will be temporarily placed "west and slightly above the pit" as stated under the proposed Section 3.5.4. Per this section of the Rule, [d]escriptions, including appropriate maps, prepared according to the standards of 2.10, and cross section drawings, of the proposed disposal site and design of the spoil disposal structures according to 4.09. As proposed, no maps or designs have been included for the temporary spoil pile associated with the N Pit. **Please have Trapper provide appropriate maps and cross section drawings for the N Pit temporary spoil pile.***

It appears that Trapper has not yet provided any maps and associated cross section drawings for the N Pit temporary spoil pile. Per Rule 2.05.3(6), if appropriate for the proposed operations, each plan should include the subsections of Rule 2.05.3(6), including Rule 2.05.3(6)(b). If the Division deems it appropriate for the N Pit temporary spoil pile, Trapper will need to provide appropriate maps and cross section drawings for the N Pit temporary spoil pile for compliance.

March 27, 2020 Comment:

*(c) Per this section of the Rule, "[t]he results of a geotechnical investigation of the proposed disposal area..." is required. It appears that Agapito Associates, Inc. has prepared a geotechnical study to assess the global stability of the proposed spoil pile however, it does not appear that it was provided with TR-124. **Please have Trapper provide the associated geotechnical investigation for the proposed N Pit temporary spoil pile.***

Trapper Mine TR-124 Memo #2

April 16, 2020



Trapper has provided the geotechnical investigation (Report) performed by Agapito Associates, Inc. (AAI) for the proposed N Pit temporary spoil pile and has been reviewed. Within the Report, it is stated that “[n]umerical modeling results indicate that the proposed spoil pile geometry is likely to be stable over the anticipated storage period (4-6 years).” The provided information in the Report supports this statement. However, as required by Rule 4.09.1(7), excess spoil shall be placed to ensure a long-term static safety factor of 1.5. It appears that there is no discussion or provided results in the Report that specifically states a minimum safety factor of 1.5 for the *entire spoil pile* is met. **Please have Trapper provide additional information to ensure the N Pit temporary spoil pile meets the minimum criteria of a safety factor of 1.5 per Rule 4.09.1(7).**

#### 4.09.1 – Disposal of Excess Spoil, General Requirements

March 27, 2020 Comment:

*(1) Excess spoil is proposed to be hauled to the A Pit ash dump area for final cover above the ash spoils. Trapper proposes that approximately 800,000 cubic yards of material be taken from the N Pit to backfill the area to the approved post mining topography (PMT). Trapper estimates that the re-disturbance of spoil within the N Pit will only have a swell of 10%. It is unsure to the Division that there will be enough material to not only backfill the A Pit ash dump but also the N Pit to the approved PMT. Please have Trapper provide additional detail and information to ensure there will be enough material to backfill and regrade both the A Pit and N Pit as proposed.*

Based on Trapper’s response, it does not appear this item was addressed. With that said, based on Agapito Associates, Inc. engineering report, the pile has a recommended designed for 7.6 million c.y. of spoil. According to Trapper, approximately 6.4 million c.y. will be needed to backfill the N Pit (5.6 million c.y.) and the A Pit (0.8 million c.y.) However, the Division cannot conclude that there will be sufficient material for both pits based on the Trapper’s proposed discussion and Agapito Associates Inc. recommended design. Trapper should still address the original comment and provide additional detail and information that ensures there will be enough material to backfill and regrade both the A Pit and N Pit as proposed.

#### Other

March 27, 2020 Comment:

*It appears to the Division that there may be a typo found on proposed page 3-15c on the 6<sup>th</sup> paragraph under Section 3.1.5. When discussing swell associated with the re-disturbance, it states that the re-disturbed spoils will be coming from the A Pit. It is the Division’s understanding that the re-disturbed excess spoil will be coming from the N Pit and then placed at the A Pit. Please correct the typo or provide additional clarification in regards to the re-disturbed spoils associated with the A Pit as stated in the proposed page 3.15c.*

Based on Trapper’s provided responses, it is unclear on whether this potential typo was addressed.

This concludes my review of Trapper Mine’s (Trapper) responses to the Division’s adequacy letter dated March 30, 2020 for TR-124. If you have any questions, feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'ZTJ' or similar, with a stylized flourish.

Zach Trujillo  
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