



GRETCHEN WHITMER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
GEOLOGIC RESOURCES MANAGEMENT DIVISION



PHILLIP D. ROOS  
DIRECTOR

May 30, 2025

VIA EMAIL AND U.S. MAIL

Jennifer Nutini, Environmental Superintendent  
Eagle Mine LLC  
4547 County Road 601  
Champion, Michigan 49814

Dear Jennifer Nutini:

**SUBJECT: Eagle Mine Request to Amend MP 01 2007 – Paste Backfill Project  
amendment request approval with conditions**

The Department of Environment, Great Lakes, and Energy (EGLE), Geologic Resources Management Division (GRMD) has reviewed Eagle Mine LLC's request to amend Mining Permit MP 01 2007, received December 12, 2024, to address changes in mining operations associated with the Eagle Mine Paste Backfill Project. In accordance with Rule 425.201(5) of the provisions of Part 632, Nonferrous Metallic Mineral Mining, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 632) and MP 01 2007 Special Permit Condition (SPC) A1, EGLE may impose, modify, or amend permit conditions as necessary to implement Part 632 rules and statute. The request to amend MP 01 2007 is hereby approved with the following conditions in effect as of the date of this letter:

**Special Permit Conditions (SPC)**  
**D. Surface Facilities**

**SPC D17:** The tailings storage area and paste backfill plant, constructed as an enclosed addition to the COSA with a concrete floor, shall be used to store dewatered, low sulfur tailings that went through the pyrrhotite removal process at Humboldt Mill. All unloading and management of tailings shall occur within the tailings storage area and paste backfill plant.

**E. Mining Plan**

**SPC E9:** Paste backfill using dewatered and low sulfur tailings that went through the pyrrhotite removal process at Humboldt Mill may be substituted for cemented development rock or cemented quarry aggregate for all approved mining and backfill methods in the Eagle East and Upper Eagle East mining areas.

**SPC E10:** The permittee shall notify GRMD at least 48 hours prior to installation of the borehole for transporting cemented paste backfill to the underground workings of Upper Eagle East and Eagle East. The outer steel casing of the borehole shall be set into

competent, high-quality bedrock and grouted to effectively seal off and protect the quaternary alluvium aquifer.

## **F. Development Rock**

**SPC F4A:** Excess development rock excavated to access the ore body shall be placed in the TDRSA during operations. The permittee shall monitor the water quality of the contact water from the TDRSA sump for signs that acidic conditions may be occurring and notify GRMD if the field pH is below 6.0 for two consecutive sampling events. If monitoring results indicate that acidic conditions are occurring, the permittee shall increase monitoring for a minimum of monthly and take action to reduce the concentration of pH sensitive metals in the contact water by one or more of the following:

- (1) adding limestone distributed evenly throughout the TDRSA, at an effectual rate or volume to provide neutralizing capacity;
- (2) submit a request to EGLE for approval to add a material other than limestone at an effectual rate or volume that is demonstrated to neutralize the acid-forming characteristics of the development rock;
- (3) utilizing a temporary cover over the development rock as specified in SPC F9;
- (4) removing development rock from the TDRSA for use as backfill material.

Water quality monitoring may return to quarterly if acidic conditions are no longer occurring as approved by EGLE.

## **L. Monitoring**

**SPC L49:** Compliance monitoring wells QAL077A and QAL077D shall be sampled and analyzed, and water level elevations measured, in accordance with the schedule, list of parameters, methods and reporting limits outlined Eagle Mine's Quality Assurance Project Plan and Standard Operating Procedures.

## **N. Groundwater and Surface Water Sampling Procedures**

**SPC N4:** Sampling parameters, frequency, analytical methods, reporting limits, and units for water quality sampling required under this permit, including SPC L13, L20, L23, L30, and L44, may be modified upon request by the permittee through submittal of a revised QAPP and written approval by EGLE.

## **P. Reclamation Plan**

**SPC P32:** The paste borehole shall be abandoned by plugging the borehole entrance into the mine with a concrete or paste plug and plugging the entire borehole and steel pipe with cemented grout from the underground mine workings to the ground surface.

Jennifer Nutini

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The surface collar shall be removed and site restored as specified in the approved reclamation plan.

Prior to commencement of new mining activities approved in this amendment request, financial assurance shall be updated to include the cost to complete the reclamation of areas where new mining activities will occur, including abandonment of the paste borehole, as required by R425.308 of Part 632. The terms and conditions set forth in the Eagle Mine Paste Backfill Project Mine Permit Amendment Application, including supplemental documents clarifying and revising the initial submittal of the application, are incorporated in and become part of MP 01 2007.

Thank you for your attention in this regard. If you have any questions please contact Melanie Humphrey, Mining Specialist, Geologic Resources Management Division at [HumphreyM@Michigan.gov](mailto:HumphreyM@Michigan.gov) or 906-250-7564.

Sincerely,

A handwritten signature in black ink, appearing to read "Adam W. Wygant". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Adam W. Wygant, CPG, State Geologist and  
Division Director  
Geologic Resources Management Division  
517-284-6823

cc: Mark Snow, EGLE  
Jolene Melchiori, EGLE  
Melanie Humphrey, EGLE