



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
UPPER PENINSULA DISTRICT OFFICE



C. HEIDI GREYER  
DIRECTOR

February 6, 2018

VIA E-MAIL

Ms. Jennifer Nutini, P.E.  
Eagle Mine, LLC  
4547 County Road 601  
Champion, Michigan 49814

Dear Ms. Nutini:

SUBJECT: Humboldt Mill Mining Permit Application Amendment Request – Request for Additional Information – MP 10 2010

In order for the Department of Environmental Quality (DEQ) to complete the review of the Humboldt Mill Mining Permit Request for Amendment dated August 2, 2017, the Oil, Gas, and Minerals Division (OGMD) requests that Eagle Mine LLC (Eagle) respond to the items listed below. Section 63205 (9) of Part 632, Nonferrous Metallic Mineral Mining, of the Natural Resources and Environmental Protection Act, Act 451 of 1994, as amended, states that a determination that an application is administratively complete does not preclude the department from requiring additional information from the applicant.

1. Describe the current water treatment plant (WTP) design, and, if applicable, plans for future process upgrades/modifications to water treatment. Also provide the annual cost to operate the WTP at this time, or as projected at closure if further modifications are anticipated.
2. Provide information that supports the conclusion that models continue to indicate that the Humboldt Tailings Disposal Facility (HTDF) water quality will stabilize over time, and will meet surface water quality standards to allow for passive discharge back into the environment without treatment after cessation of tailings disposal to the proposed elevation, including details of the updated geochemical and limnological model. This information should clarify the predicted amount of time water treatment will be required after cessation of tailings disposal into the HTDF. Describe any methods or technologies that have been considered to improve water quality in the HTDF post closure as applicable.
3. Have potential impacts from high wind storm events on the HTDF, both during operations and post closure, been considered in the limnological models?
4. Clarify as to whether complete mixing of the HTDF has been observed during operations and/or is predicted to occur after cessation of tailings disposal to the proposed elevation, and potential impacts of these events. Include any measures that have been considered or are being implemented to mitigate potential impacts.
5. Provide information collected per Special Permit Condition F3 as part of this amendment request.

6. Provide additional information regarding aquatic life in the HTDF and wildlife that may utilize the HTDF, including observations, influent water quality, and measures considered to minimize wildlife use of the HTDF. Has aquatic biota monitoring occurred in the HTDF since operations began, or are there plans to do so?
7. Describe how the proposed tailings disposal elevation of 1515 feet was determined to accommodate the tailings disposal requirements of Eagle Mine, including consideration of tailings placement, dispersion, and consolidation, as well as water column depth.
8. Have alternatives for tailings disposal been considered/evaluated for Eagle Mine's known mineral resources? If so, describe the alternatives, including rationale for the decision to continue to utilize the HTDF rather than those alternatives.

Thank you for your attention and consideration in this regard. The DEQ is scheduled to make a proposed decision on this amendment request by February 22, 2018. Please contact me at the telephone number listed below or by e-mail at [humphreym@michigan.gov](mailto:humphreym@michigan.gov), or Mr. Joe Maki at 906-250-4015, [makij@michigan.gov](mailto:makij@michigan.gov), to discuss the expected schedule for Eagle to respond to this request, and any other questions.

Sincerely,



Melanie Humphrey  
Oil, Gas, and Minerals Division  
Upper Peninsula District Office  
906-250-7564

MH:TC

cc: Ms. Kristen Mariuzza, Eagle  
Mr. Harold Fitch, DEQ  
Mr. Adam Wygant, DEQ  
Mr. Rick Henderson, DEQ  
Mr. Joe Maki, DEQ  
File: Humboldt Mill - RM8