

Eagle Mine 4547 County Road 601 Champion, MI 49814, USA Phone: (906) 339-7000 Fax: (906) 339-7005

www.eaglemine.com

February 16, 2017

Mr. Joe Maki Michigan Department of Environmental Quality Office of Oil, Gas, and Minerals 1504 West Washington Street Marquette, MI 49855

RE: Request for Amendment for Decline Development

Eagle Mine LLC. Mine Permit MP012007

Dear Mr. Maki:

Lundin Mining Corporation (LMC) announced in June 2015 that exploration drilling crews had intercepted a new zone of nickel and copper mineralization located approximately two kilometers east of the Eagle deposit, an area known as Eagle East. In May 2016, Eagle informed you that we intended to move forward with a new underground decline originating at the bottom of the Eagle ore deposit which would eventually extend toward Eagle East. In your response to that communication, you asked that we continue to update your department with the status of progress on Eagle East. Therefore, this letter is intended to provide an update on our plans, to confirm that Eagle is in continual compliance with our environmental licenses, and to request that the current and future Eagle East decline activities within the current Eagle Mine site boundary be included within MP012007 via a permit amendment.

As detailed in the May 2016 letter, development of the decline did not meet the definition of mining in §63201(g) of Part 632 since, at that time, there was not sufficient data to define the Eagle East deposit as a mineable resource or to design a mine. Pending collection of that data, Eagle moved forward with further exploration and feasibility studies to determine if the deposit was a resource the company desired to develop. The feasibility study for mining Eagle East is near completion and we are anticipating that LMC Board of Directors will then approve the Eagle East deposit to be developed as a mine. Therefore, we believe it is appropriate to incorporate the decline into MP012007.

At this time, this amendment request is inclusive of only the work that is within the current Eagle Mine boundary and consistent with the approved Environmental Impact Assessment (EIA). If LMC approves the mining of Eagle East, Eagle will submit a permit amendment request for that development which is located beyond the current facility boundary. Eagle understands that incorporation of the decline in MP012007 by MDEQ does not constitute approval to mine Eagle East. Eagle also understands that it is responsible for reclamation of all activities regardless of any Eagle East development.

## **Environmental Considerations**

In May 2016 Eagle indicated that the conditions of the existing mine permit and required site infrastructure provided adequate protection of the environment, natural resources, and public health to begin the development of a decline that would support the feasibility efforts and, if mineable, be the primary access to Eagle East. That permit and site infrastructure continues to be protective as we advance the work on the decline. This advancement allows Eagle to continue collecting data to further refine our models and designs while also allowing us to use the development rock underground as much as possible in support of existing backfill operations. Therefore, there will be no required updates needed to the EIA for our current and proposed activities depicted in the attached figure. Further discussion of the applicable aspects are as follows:

## **Rock Characteristics**

The material proposed to be mined for the decline is similar or the same in geology and geotechnical characteristics, so there is no concern regarding unknowns related to structural integrity.

Eagle and its consultant have analyzed the geochemistry of the development rock from the decline, and the geochemical characteristics of the rock are consistent with waste rock that Eagle has already encountered. Therefore, any development rock that is brought to the surface can be appropriately managed on the Temporary Development Rock Storage Area (TDRSA). Despite this environmental protection afforded by the TDRSA, Eagle intends to absorb a large fraction of the waste rock that is generated through the new decline development by directly placing the rock into secondary stopes within the Eagle Mine workings rather than handling this material on the surface. Eagle's mine planners attempt to sequence the decline development operations with the backfill operation to offset the requirement to have other offsite natural resources delivered to the site. In doing so, this reduces the global environmental footprint involved with the backfill operation by lowering demand for offsite borrowed natural resources and the fuel usage for rock deliveries.

## Water Characteristics

The characteristics of the water are not expected to pose any new water quality aspects that require treatment, however, the mine water is anticipated to contain higher concentrations of dissolved solids as the decline moves into deeper rock. Eagle's existing water treatment plant has the capacity to remove these additional dissolved solids with a likely potential to add one crystallizer in the coming years of decline development. Continued development of a decline will result in more exposed surface area from which bedrock groundwater can seep into the mine, and therefore slight increases in water infiltration. However, Eagle's water management and treatment capacity is oversized compared to the expected increase in water infiltration into the mine from decline development, and Eagle's permit limits on total daily inflow sufficiently provide for the increased quantity of water. Eagle will maintain its groundwater level monitoring program and contingency plan as required under permit for management and treatment of mine water inflows.

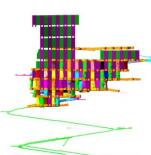
As stated above, this request is to formally incorporate the decline development activities into our permit and Eagle does not assume MDEQ approval for mining Eagle East; however, we trust that this correspondence provides the information required for you to approve continued development of the decline within the current site boundary. Furthermore, Eagle understands that in the event that a future Eagle East mine amendment request is denied, or development of Eagle East does not move forward, the decline we are developing would need to be addressed per Eagle's closure and reclamation plan. Eagle will be conducting additional geotechnical and hydrogeological studies where the information will be used to determine final reclamation requirements of the decline. In the future, Eagle will also update its financial assurance as needed to address any changes in the closure and reclamation plan due to construction of the decline.

As always, Eagle is committed to ensuring that our activities always have appropriate controls in place to ensure adequate protection of the environment, natural resources, and public health and safety. Please do not hesitate to contact me if you need additional information or have any questions concerning this request.

Respectfully,

Jéndifer Nutjai, P.E. Environmental Engineer





Proposed Eagle East Decline

Mining Activity to Be Permitted in the Future