

# Frequently Asked Questions

## **Eagle Mine, a subsidiary of Lundin Mining (Eagle Mine)**

The Michigan Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), is asking for comments from the public on a proposed Permit to Install (PTI) for the Eagle Mine in Michigamme Township and a proposed PTI for the Humboldt Mill in Champion. The AQD will accept comments on the proposed PTIs until the close of the comment period on April 3, 2020. We will review all comments before we make final decisions on the proposals.

### **What does the Eagle Mine do?**

The Eagle Mine mines ore from underground that contains copper and nickel. The mined ore is temporarily stored on site in an enclosed building prior to being trucked to the Humboldt Mill for processing. Eagle Mine also removes development rock (rock that does not contain enough metal to be processed economically) from underground as part of mining the ore. Development rock is stored on site and put back in the underground mine as ore is removed. Eagle Mine also uses aggregate (crushed stone), sand, and cement brought to the site to backfill the underground mine as ore is removed.

### **What does the Humboldt Mill do?**

The Humboldt Mill processes the ore from the Eagle Mine to produce copper and nickel that are shipped off site by rail. Tailings produced from making concentrate are disposed of on site.

### **What changes are proposed at the Eagle Mine?**

Eagle Mine is proposing to add an outdoor crushed stone and sand storage area and to operate a portable screening plant to separate development rock by size for use as backfill at the Eagle Mine. The proposed permit would require Eagle Mine to control dust. Emissions from the storage area and screening plant would be managed through the fugitive dust control plan. The screening plant would have water sprays to control emissions. Eagle Mine is also proposing to change the timeframe of the ore truck throughput limit at the Eagle Mine. This change would not increase the amount of ore allowed to be trucked per year.

### **How much will emissions increase at the Eagle Mine?**

Particulate emissions of aggregate could increase up to 3.5 tons per year (tpy) and particulate emissions of development rock could increase up to 2 tpy based on the proposed permit conditions.

### **What changes are proposed at the Humboldt Mill?**

Eagle Mine is proposing to change the timeframe of the ore truck throughput limit at the Humboldt Mill. This change would not increase the amount of ore allowed to be trucked per year.

### **What is a PTI and why is one needed?**

A PTI, commonly known as an air use permit, is required for projects that involve installing, constructing, reconstructing, relocating, or modifying most processes or process equipment that emit, or may emit, air contaminants, such as the outdoor storage area and screening plant Eagle Mine is proposing, or that require

changing conditions of an existing PTI, such as the change to the timeframe of the ore truck limits. The AQD has reviewed the projects and written proposed permit conditions that include requirements to make sure the projects comply with all applicable air laws and regulations.

### **Will the emissions from the proposed projects affect public health in the area?**

The U. S. Environmental Protection Agency has developed health-protective standards for specific air pollutants. These standards are called the National Ambient Air Quality Standards (NAAQS). NAAQS are developed from research studies and are set at levels to protect public health. This includes health protection for sensitive groups like those with heart and lung problems. For pollutants not subject to NAAQS, the AQD also develops air toxics screening levels that provide public health protection. The potential emissions from the Eagle Mine were reviewed and determined to comply with these rules and regulations.

Since the project at the Humboldt Mill does not involve any changes to emissions, the emissions were not re-evaluated. The AQD reviewed the potential emissions from the Humboldt Mill in 2013 and determined they comply with these rules and regulations.

### **How does the AQD evaluate comments received on the proposed permits?**

Every comment is reviewed to determine if further technical review is warranted. If a technical review is warranted, it will be described in the Response to Comment document developed in combination with the final action on the application. The final action can be approval as proposed, approval of the proposed conditions with changes, or denial of the application(s).

### **What about “Eagle East”? The emissions should be evaluated.**

Access to the “Eagle East” ore deposit is through the original mine portal and air emissions from mining the ore deposit exhaust through the existing Main Ventilation Air Raise (MVAR). Eagle Mine has demonstrated that potential emissions from mining the “Eagle East” ore deposit comply with the current Eagle Mine permit conditions. Therefore, mining “Eagle East” does not require a permit modification.

In addition, Eagle Mine has not requested to make any changes to the underground operations. Therefore, the emissions from the underground operations are not subject to review in the current PTI application. Note, the emissions from the underground operations were included in the dispersion modeling review for the PTI application.

### **What about the greatly increased volume of development rock in the Temporary Development Rock Storage Area (TDRSA)?**

The AQD evaluated the TDRSA emissions based on the maximum allowed size of the TDRSA. Therefore, although the amount of development rock is higher than it has been in the past, it is consistent with the PTI application review, including the dispersion modeling.

### **Why hasn't a new stack test been conducted on the MVAR to address “Eagle East” and full ore production?**

The stack test conducted in 2014 was conducted at the maximum ore mining capacity. While total ore production was not very high at the time of the test, Eagle Mine conducted ore drilling, blasting, and material handling operations consistent with the maximum short-term operating conditions. In addition, the mining activity taking place during the emission test was being conducted very close to the MVAR, allowing very little time for particulate emissions to settle out of the exhaust air. For “Eagle East”, the mining activity is

taking place approximately 2 kilometers underground from the MVAR, allowing adequate time for particulate emissions, including metals, to settle out of the exhaust air underground.

### **Why hasn't uranium been evaluated? It has been detected in plant tissue monitoring.**

Uranium has been detected in the TDRSA sump. However, this uranium has been determined to be due to aggregate used to construct the TDRSA, rather than development rock.

Uranium was reported to have been detected in one plant tissue sample near the mine in 2017. However, as noted in the Community Environmental Monitoring Program report, the sample results were estimated due to being below the method quantitation limit (MQL). In addition, the blank appears to have been contaminated. This does not indicate a significant concern with uranium emissions from the Eagle Mine.

### **Who should citizens contact with questions and/or complaints about the Eagle Mine or the Humboldt Mill?**

Citizen complaints should be directed to Mr. Joe Scanlan of the EGLE, AQD, Marquette District Office. Joe can be reached, during business hours, at 906-458-6405 or via e-mail at ScanlanJ@Michigan.gov. After hours complaints should be submitted to the Pollution Emergency Alerting System Hotline at 800-292-4706. It is recommended that you contact the AQD as soon as you observe a problem allowing staff to investigate the situation while it is still on-going.

### **How often are these facilities inspected by the Air Quality Division?**

Both the Eagle Mine and the Humboldt Mill are considered minor sources of emissions and therefore inspections typically occur once every five years. More frequent inspections occur based on permit changes, process upsets, complaints, etc.

### **What about noise and light from the facility? What about truck traffic on the local roads?**

The AQD does not have authority to regulate noise, light, or truck traffic on public roads.

### **What happens next?**

The AQD will evaluate and consider all comments made and take final actions as previously discussed. If the final actions are to approve the proposed permits, Eagle Mine may start storing crushed stone and sand outdoors and may begin operating the screening plant. The ore throughput limits would also be changed. If the final actions are to deny the permit applications, Eagle Mine and Humboldt Mill may address the issues resulting in the denial and submit new PTI applications at a later time. However, the Eagle Mine would be allowed to continue operating under PTI No. 50-06B and Humboldt Mill would be allowed to continue operating under PTI No. 405-08A.

### **What other ways can the community get involved with air quality?**

Anyone in the community can sign-up to get Air Quality updates by signing up for our [e-mail list serve](#). Visit [Michigan.gov/air](http://Michigan.gov/air) and click on the red envelop in the bottom left hand corner. 

*Michigan's Environmental Justice Policy promotes the fair, non-discriminatory treatment and meaningful involvement of Michigan's residents regarding the development, implementation, and enforcement of environmental laws, regulations, and policies by this state. Fair, non-discriminatory treatment intends that no group of people, including racial, ethnic, or low-income populations, will bear a disproportionately greater burden resulting from environmental laws, regulations, policies, and decision-making. Meaningful involvement of residents ensures an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health.*