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Charlie Catholique, Chair
Environmental Monitoring Advisory Board
PO Box 2577
Yellowknife, NT, X1A 2P9
Canada

28 August 2020

Dear Mr. Catholique,

Subject: **DDMI Response to EMAB's Follow-up Recommendation to Sample Yellow Haze at Diavik**

This letter is in response to the Environmental Monitoring Advisory Board's (EMAB) June 29, 2020 follow-up letter to its March 6, 2020 correspondence regarding EMAB's recommendation that Diavik Diamond Mines (2012) Inc. (DDMI) initiate a sampling program for a "yellow haze" phenomenon at the Diavik Mine.

EMAB Follow-up Recommendation DDMI-EAQ-15:
Sample the yellow haze and report on its chemical make-up and concentration, or develop a program to sample it.

Response to DDMI-EAQ-15:
As stated in DDMI's May 4, 2020 response to EMAB's original recommendation on this subject, DDMI maintains that it is unaware of a "yellow haze" at the Diavik Mine and is not able to develop a program to sample it and report on the chemical make-up.

DDMI has studied the pictures EMAB provided in its June 29, 2020 follow-up letter as evidence of a "yellow haze" at Diavik. In the letter, EMAB stated that the pictures were taken over four (4) years ago from the Ekati mine site, looking towards the Diavik mine. Due to the blurry nature of the pictures (low resolution), the location from which EMAB noted the pictures were taken, and the lack of clear landmarks associated with the Diavik site, DDMI cannot definitively confirm these images are of the Diavik Mine.

The aforementioned notwithstanding, DDMI recognizes that fuel combustion at the Diavik Mine in combination with specific weather conditions, including ambient temperature, may occasionally result in localized temporary environmental events that reduce visibility in the vicinity of the Mine. Hence, DDMI acknowledges the plausibility of EMAB's theory that combustion gases, particularly nitrogen dioxide (NO_2), may be responsible for the apparent "yellow haze" event at Diavik. DDMI wishes to reiterate the following project predictions, monitoring and adaptive management related to air quality associated with Diavik:

- The 1999 Diavik Environmental Assessment Report predicted the Diavik Diamond Mine Project would not have a significant effect on air quality.
- DDMI's 2012 Air Dispersion Modelling Assessment for the Diavik Mine predicted that maximum 24-hour concentrations of NO_2 is lower than the air quality criteria in the vicinity of the Diavik Mine.
- Annually, DDMI reports on NO_2 output as part of the Federal National Pollutant Release Inventory (NPRI) program and summarizes this information in the Annual Air Quality Report. NPRI substance emissions are derived by DDMI using emission factor calculations in Environment and Climate Change Canada's NPRI Toolbox. Results are tracked year-over-year and any changes in trends are explained as part of the NPRI reporting requirements.
- DDMI monitors the receiving environment that is potentially impacted by air emissions through the Aquatic Effects Monitoring Program and the Lichen and Vegetation Program.
- DDMI continues to implement environmental programs and site-wide initiatives to reduce NO_2 emissions to the atmosphere, including the following:
    - Installation of four (4) wind turbines (4 x 2.3 MW), reducing annual diesel fuel consumption by approximately 10 percent.
    - Implementation of policies that limit vehicle idling and reduce overall vehicle count at the Diavik Mine.
    - Use of ultra-low Sulphur (approximately 4.3 parts per million) diesel fuel.
    - Aircraft/flight optimization to reduce air traffic.
    - Use of heat recovery systems in electrical generators.
    - Utilizing incinerators designed as best available technology.

DDMI reiterates that its monitoring programs have not recognized significant impacts to the environment linked to air emissions. The Diavik operation continuously strives to improve management controls at the Diavik Mine to mitigate potential impacts to the environment, including air quality.

Please do not hesitate to contact the undersigned if you have any questions related to this submission.

Yours sincerely,

Kofi Boa-Antwi
Superintendent, Environment

cc: John McCullum, EMAB