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Building *Nunavut* Together
Nunavut liuqatigiingniq
Bâtir le *Nunavut* ensemble

July 4, 2023

Kelli Gillard
Manager, Project Monitoring
Nunavut Impact Review Board
P.O Box 1360
Cambridge Bay, NU
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Sent VIA Email: info@nirb.ca

RE: NIRB File No: 05MN047 and 12MN001 Comment Request for Agnico Eagle Mines Limited's Doris North Gold Mine and Phase 2 Hope Bay Belt Projects 2022 Annual Report

Dear Kelli Gillard,

The Government of Nunavut (GN) would like to thank the Nunavut Impact Review Board (NIRB) for the opportunity to review and comment on Agnico Eagle Mines Ltd.'s 2022 Annual Report for the Doris North and Hope Bay Belt projects.

The GN has reviewed the 2022 Annual Report and supplemental documents associated with Doris North and Hope Bay projects and provides detailed comments below (see Appendix A). Should you have any questions, please do not hesitate to contact me by email at dlapierre1@gov.nu.ca.

Qujannamiik,

Dianne Lapierre
Avatiliriniq Coordinator

On behalf of
David Kunuk, Deputy Minister
Economic Development and Transportation
Government of Nunavut

Appendix A:

Government of Nunavut Comments on the Doris North and Hope Bay Belt Projects 2022 Annual Report

GN AR # 01	
Department	Environment
Organization	Government of Nunavut
Subject/Topic	Helicopter Traffic
Terms and Conditions	Project Certificate 003 – Condition #29 Project Certificate 009 – Condition #04, 22
References	<ul style="list-style-type: none"> • Hope Bay Project Annual Report 2022 (Table 8-2. Summary of Madrid-Boston Residual Effects, and Monitoring Program under Project Certificate No. 009) • Hope Bay Project: 2022 Wildlife Mitigation and Monitoring Program (WMMP) Compliance Report • Back River Project Annual Report 2022 • GN Technical Review Comments on 12MN001 TMAC Resources' DEIS for Phase 2 of the Hope Bay Belt Project, 2017 (170523-12MN001-GN Technical Review Comments-IMTE.pdf). • GN Technical Review Comments on 08MN053 BIMC Phase 2 Development of the Mary River Project, 2019 (08MN053 - BIMC Phase 2 TRCs – FINAL.pdf). • GN Technical Review Comments on 16MN036 AEM EIS for the Whale Tail Pit Project, 2017 (170328-16MN056-GN Technical Comment Submission.pdf). • Maier, J. A. K., 1996. Ecological and Physiological Aspects of Caribou Activity and Responses to Aircraft Overflights. University of Alaska, Fairbanks. • Wolfe, S. A., Griffith B., and Wolfe, C. A. G., 2000. Response of reindeer and caribou to human activities, Polar Research (19(1), 63-73.

IDENTIFICATION OF ISSUE

Helicopter flights far exceeded Final Environmental Impact Statement (FEIS) predictions in 2022 and monitoring efforts do not appear to address additional activity, nor do they clearly indicate that wildlife avoidance measures were followed.

IMPORTANCE TO REVIEW AND SUPPORTING RATIONALE

The Hope Bay Project logged 3,055 one-way helicopter flights in 2022, from May to October, with 3 helicopters on site. Average daily trips were nearly double that (190%) of the FEIS maximum predicted for one-way trips. Trips in 2022 averaged 40km and 39 minutes in duration. The Proponent stated that the high level of helicopter activity was the result of an increase in surface drilling related to an expanded exploration program, which was described as “not part of regular operations” for the Project in the WMMP Compliance Report Section 2.3.4.

The GN is concerned that this additional activity, not being part of regular operations, is not part of regular monitoring either. Destinations and areas with high concentrations of activity are described in general terms, and not defined on a map, making it difficult to see which Project areas are subject to the increased impacts. Furthermore, flight paths and altitudes are not reported.

Caribou have been shown to exhibit increased movement and flight responses to aircraft overflights, which increase with the relative intensity of noise associated with that aircraft (Maier, 1996). Wolfe, et al. found that Caribou had the greatest reaction to helicopter overflights during the calving season, and more than 80% of caribou had a strong reaction (running away) from small aircraft overflights in the winter. This emphasizes the broad reach that helicopter operations have on caribou.

Caribou exhibit a more intense response to helicopters than fixed-wing aircraft at low altitudes (<400m), and flight response to both types of aircraft dissipates as overflight altitude increases. Similarly, cows with calves are more likely to respond to helicopter overflights than other demographic groups (Wolfe, et al. 2000).

Given the evidence for the impacts of low altitude helicopter overflights on caribou, most operating mines in Nunavut have adopted a flight height standard as a key mitigation measure. For example, the primary mitigation measure for minimizing disturbance to wildlife by helicopters at the Whale Tail Pit Project in the Kivalliq, is to “maintain ferrying flight altitudes of 610 m when feasible”, except during take-offs and landings (Table 4, TEMP App 8-E.7) (GN, 2017). Likewise, BIMC requires all project-related aircraft to fly at or above 650m, subject to safety requirements, in an effort to reduce impacts to caribou.

The GN also raises the issue of the absence of pilot observations of caribou, given that, in 2022, caribou (233 individuals) and muskox (267 individuals) were commonly observed by ground-based site staff (WMMP Compliance Report, Appendix 3.2-6). Pilots reported observations of both muskox (19 individuals) and moose (1 individual) as well as a number of bird observations (WMMP Compliance Report, Appendix 3.2-7). In this case, it seems clear that pilots are both aware of and complying with the requirement to report wildlife observations, but that they have not observed caribou in the Project area. This suggests that caribou may be going undetected, and that they may be impacted by low helicopter flights.

RECOMMENDATION(S)

The Government of Nunavut (GN) has identified concerns with the altitudes of the helicopter transits. For the Hope Bay Project, a minimum altitude of 300m above ground level (AGL) is required for helicopters and 610m AGL for fixed-wing aircraft.

The GN recommends the following:

1. Setting a minimum altitude of 610m for all aircraft, except in circumstances where it is not feasible (e.g., external loads) or safe to fly at this minimum flight altitude.
2. That the Proponent provide more detail when reporting helicopter traffic and its intensity around the Project area; specifically, flight paths and altitudes, as is done for other projects (e.g., Back River Project).

GN AR # 02	
Department	Environment
Organization	Government of Nunavut
Subject/Topic	Caribou and Muskox Mitigation – Camera Monitoring
Terms and Conditions	Project Certificate 009 Condition #22
References	<ul style="list-style-type: none"> • Hope Bay Project: 2022 Wildlife Mitigation and Monitoring Program Compliance Report • 220704-05MN047 12MN001-GN Comments Re 2021 Annual Report-IA2E
IDENTIFICATION OF ISSUE	
<p>The Government of Nunavut (GN) has previously noted that the wildlife camera monitoring program suffers from reduced camera effort for approximately 6 months of the year due to cameras being knocked down by grizzlies and snow obscuring the camera lenses.</p>	
IMPORTANCE TO REVIEW AND SUPPORTING RATIONALE	
<p>In January of 2022, there was a total of 41 operational days with 3 cameras active out of a possible 1829 days with 59 total cameras – or 2.2% operational capacity. February and March saw improvements, with 5.8% and 29.8% of capacity, respectively. Capacity peaked at 75.7% in June (Table 3.4-1: Caribou Events Recorded by Month). Also in June, camera #22 was knocked down and was inoperable until it was serviced in the fall, up to 4 months later (WMMP Report Section 3.6.3.1).</p> <p>Recognizing that the wildlife camera monitoring program is the primary means of monitoring wildlife interactions around the Project area and program data are used to assess the Project’s zone of influence (ZOI) and wildlife avoidance patterns, it is crucial that operational capacity improves.</p>	

RECOMMENDATION(S)

The GN acknowledges that additional effort was undertaken to provide analysis of camera data from the previous study periods. The GN also acknowledges that the Proponent has committed to implementing improvements to the camera tripod infrastructure to reduce the instances of grizzly bear damage, and notes that these efforts were successful as camera knockdowns were reduced by roughly half in 2022 from 2021.

The GN recommends the following:

1. That the Proponent address all outstanding issues related to wildlife camera monitoring for wildlife, including an update to its wildlife camera monitoring program to include more frequent equipment checks for improved operational capacity.
2. That the Proponent investigate and implement the use of alternate cameras or methods of setting up the cameras that may be more reliable for data collection during winter.
3. Clarification from the Proponent on how instances of snow obscuring camera lenses are proposed to be reduced going forward.

GN AR # 03	
Department	Environment
Organization	Government of Nunavut
Subject/Topic	Noise Monitoring
Terms and Conditions	Project Certificate 003 Condition #24, 29 Project Certificate 009 Condition # 04, 22
References	<ul style="list-style-type: none"> • Hope Bay Project: 2022 Wildlife Mitigation and Monitoring Program Compliance Report • Hope Bay Quarry Blast Noise Monitoring SOP • 220704-05MN047 12MN001-GN Comments Re 2021 Annual Report-IA2E
IDENTIFICATION OF ISSUE	
<p>The Government of Nunavut (GN) has previously requested that the Proponent provide the noise management report for any blasting occurring in the reporting year; or state that no noise monitoring or blast monitoring was required due to no blasting activity. This report was not included in the Annual Report.</p>	
IMPORTANCE TO REVIEW AND SUPPORTING RATIONALE	
<p>While there is a description of noise monitoring activities in the Annual Report, this description of monitoring (WMMP Report Section 2.5) is not consistent with the reporting requirement within the Noise Monitoring Standard Operating Procedures Section 3, "A noise monitoring report will be completed following all data collection. The reports will include a summary of the methods and equipment, summary tables for the weather, noise data, along with graphs of the raw noise data, a map showing the location of monitoring sites, and photos of each site."</p> <p>Per the Hope Bay Project's Commitment #41, there is also a need to determine the actual distance from the blast where 96 Lpeak dBZ is recorded.</p>	

RECOMMENDATION(S)

The GN requests that the above discussed noise monitoring report be submitted to the Nunavut Impact Review Board and interveners for review and be included in all subsequent annual reports.

GN AR # 04	
Department	Environment
Organization	Government of Nunavut
Subject/Topic	Unauthorized Discharges
Terms and Conditions	Pollution Prevention
References	<ul style="list-style-type: none"> • Hope Bay Project 2022 Annual Report Section 7 • Nunavut Spill Contingency Planning and Reporting Regulations (Schedule B), Nu-068-93 (2006)
IDENTIFICATION OF ISSUE	
<p>The Annual Report contains well documented reporting and information on spills for the Project. While the Report contains information on spills beyond the legal reporting threshold, it does not contain reports and information on all spills associated with the project. The Government of Nunavut (GN) understands that the Proponent maintains internal records for all spills, regardless of size. The GN believes that the Annual Report should include records of all spills regardless of size in order to better analyze potential project effects.</p>	
IMPORTANCE TO REVIEW AND SUPPORTING RATIONALE	
<p>The Proponent has stated "Agnico tracks all unauthorized discharges and spills on site, regardless of if they are externally reportable or not, and identifies any observable trends." (Section 7.2 of the Annual Report). The information presented in Annual Report Table 7.2-1 is detailed, clearly identifies causes, and supports review and lessons learned to prevent future spills. This information, when reported in the Annual Reports, becomes available to stakeholders and other project proponents, and can aid in materials handling and spill response for other Projects and activities. This information is valuable independent of whether the spill met the reporting requirement.</p>	

RECOMMENDATION(S)

The GN recommends the following:

1. That all spills, regardless of volume or legal reporting requirements, be reported in all subsequent annual reports.
2. That the Proponent note which type of glycol (propylene or ethylene) is used on site, as the Report does not specify.

GN AR # 05	
Department	Environment
Organization	Government of Nunavut
Subject/Topic	Dustfall and Dust Suppression Thresholds
Terms and Conditions	Project Certificate 009 Condition #01
References	<ul style="list-style-type: none"> • Hope Bay Project 2022 Annual Report Section 8 • Q1-Q3 2022 Atmospheric Compliance Monitoring Program Report – Doris and Madrid Projects (Table ES-1, s.4.2.2)
IDENTIFICATION OF ISSUE	
<p>The air quality monitoring program indicates that dust levels at the Madrid Site exceeded FEIS predictions and remained high over the summer, even with portions of the project in care and maintenance and limited site activity.</p>	
IMPORTANCE TO REVIEW AND SUPPORTING RATIONALE	
<p>Per the Atmospheric Compliance Monitoring Program Report, there were 3 instances where dust levels exceeded Final environmental Impact Statement (FEIS) predictions, and “elevated dustfall levels were measured for two months” (Table ES-1, Section 4.2.2). The Proponent indicated that dust mitigation measures were implemented, but does not specify which measures were utilized, whether these are part of the air quality monitoring program under Project Certificate No. 003 (AR Table 8-1), nor what triggers would be used to initiate suppression efforts. While these exceedances are relatively minor, given that they occurred during reduced levels of Project activity, it is clear that dust generation and its effects have the potential to become a serious issue as the Project re-enters production. Detailed information on dust monitoring and mitigation is required to assess the extent and effectiveness of dust suppression methods at the Project.</p>	

RECOMMENDATION(S)

The Government of Nunavut (GN) recommends that the Proponent provide additional detail on dust suppression methods, frequency, and any thresholds used to initiate dust suppression efforts, as well as a description of which measures were taken during the reporting year in all subsequent annual reports.

