

IR Number 1:

Source: Yellowknives Dene First Nation

To: Aboriginal Affairs and Northern Development Canada

Subject: Effluent discharge criteria

Reference: Round One: YKDFN IR #11 and AANDC June 17, 2011 Response

Preamble:

The Federal Metal Mining Effluent Regulations (MMER)¹ is commonly used a regulatory discharge limits for operating metal mines. It is YKDFN position that MMER effluent discharge limits are not applicable for a closed metals mine, such as Giant Mine. MMER effluent discharge concentrations do not guarantee protection of all aquatic life in the environment. YKDFN supports effluent discharge criteria that are protective of aquatic life in the receiving environment. Regulatory effluent discharge limits are recommended to achieve this outcome.

AANDC stated that the MVLWB will set effluent discharge criteria during the water licencing phase of the project and that the water treatment plant will achieve these set limits. Based on previous Environmental Assessments where particular criteria have been established, YKDFN believe that the MVEIRB stage is appropriate for overarching effluent targets or specific contaminants of concerns to be selected. The MVLWB effluent discharge criteria may not fully embody impacts to aquatic life through its mandate and legislation

Without additional information to understand the concentrations of parameters in the environment that are protective of aquatic life, it is YKDFN's understanding that MMER as the effluent discharge quality will likely be AANDC target for consideration by the MVLWB. YKDFN notes that previous reclamation activities by AANDC, for example at the former Hidden Lake mine (NWT), did not apply MMER as acceptable effluent discharge water quality; rather, a risk assessment was completed to understand the parameters of potential concern and the associated concentrations that resulted in acceptable potential impact.

Request:

- a. AANDC to define the acceptable water quality in the receiving environment by providing a list of parameters, and associated concentrations, that are protective of the receiving environment and evaluated through the MVEIRB process to understand potential impact to aquatic life. These will be called the water quality objectives. Presumably, if these water quality objectives are known, then the MVLWB could apply this knowledge in the determination of a regulatory limit that will achieve the objectives.
- b. AANDC to compare the water quality objectives to the predicted water quality in the receiving environment.

¹ Metal Mining Effluent Regulations, SOR/2002-222

- c. AANDC to compare the (effluent) design specifications for its Water Treatment Plant and that planned for the Con Mine Site.
- d. MVEIRB to apply the concept that water quality objectives, which are protective of the aquatic environment, as the gauge to determine significance of potential impact for effluent waters released from Giant Mine. For example, if the predicted effluent water quality is less than the water quality objectives, then there may be reasonable certainty that there will be minimal negative impacts; if the predicted effluent water quality is greater than the water quality objectives, there may be potential negative impacts.

IR Number 2:

Source: Yellowknives Dene First Nation
To: Aboriginal Affairs and Northern Development Canada
Subject: Transparency between enforcement and proponent
Reference: Round One: YKDFN IR #XXIV

Preamble:

The YKDFN had previously noted concern regarding the uncertainties about the administration, inspection and regulation of activities at Giant Mine. Further to this concern, YKDFN is interested in understanding the organizational structure within which the AANDC inspector and the Proponent (i.e., Contaminates and Remediation Directorate - CARD) operate. The goal is to understand the authorities within which each division (inspector and CARD) operates, and where potential overlaps in authority exist.

Request:

AANDC to provide the organization structure (preferably in chart form) within which the AANDC inspector(s), CARD and regional headquarters operate, which sufficient complementary description to understand the authorities each division. Where potential overlaps in authority exist, it is requested that a description of the interaction and decision making process is described.

IR Number 3:

Source: Yellowknives Dene First Nation
To: Aboriginal Affairs and Northern Development Canada
Subject: Closure and reclamation

Preamble:

A substantial amount of activities are planned to be completed at Giant Mine. It is critical that each mine component have appropriate objectives for reclamation and criteria upon which to measure success. Where there are information gaps that limit the ability to define criteria to measure success, additional information will need to

be gathered. The information gaps, as well as, the timeframe to gather information, or complete studies, to fill the knowledge gaps should be defined. YKDFN understands that this information may exist within the submitted materials to MVEIRB; however, Interveners would benefit from a consolidation of information upon which to gauge the completeness of closure and reclamation planning.

An understanding of how to reclaim each mine component, as well as, the objectives and criteria for each mine component are fundamental components of closure and reclamation planning. These concepts are described at length within various guidelines that are typically applied in the NWT² &³, including those issued by the Federal Government of Canada.

Request:

Within a table format, AANDC to provide the following:

- a. A summary of the closure scenario adopted for reclamation of each mine component.
- b. The objective(s) of the closure condition.
- c. The criteria upon which the measure the success in achieving the objective(s).
- d. If criteria are unknown, a description of the information gap, what information is needed to fill the information gap, and a timeframe when this information will be obtained.

IR Number 4:

Source: Yellowknives Dene First Nation

To: Aboriginal Affairs and Northern Development Canada

Subject: Public safety within the vicinity of the outlet diffuser

Reference: Technical Sessions

Preamble:

The effluent water discharged through the diffuser could have temperatures warmer than the lake. The warmer water can result in thinner ice in the vicinity of the diffuser, or potentially no ice cover. The winter shoulder seasons may be more susceptible to this effect.

YKDFN is concerned about public safety in the vicinity of the outlet diffuser during periods of ice-cover. The public can gain access to the diffuser location by foot or snowmobile when the ice cover is of sufficient strength. However, if there was

² DRAFT Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories (2011). Developed by the Land and Water Boards of the Mackenzie Valley and Aboriginal Affairs and Northern Development Canada.

³ Indian and Northern Affairs Canada (2007). Mine Site Reclamation Guidelines for the Northwest Territories.

thinning ice in the vicinity of the diffuser, the ice may not be sufficiently supportive. There is a serious risk for people falling through the ice as a result.

AADNC has previously indicated that signs and public service announcements can be implemented to warn people of the dangers. YKDFN appreciates this effort, but respectfully disagrees with the effectiveness to warn people of the potential dangers.

Request:

- i. AANDC to provide any information regarding ice thinning in the vicinity of the diffuser in the winter “shoulder” (Freeze up, Spring Thaw) seasons, as well as, in normal winter conditions.
- ii. AANDC to detail a robust method to ensure public safety due to thinning (and weaker) ice in the vicinity of the effluent diffuser. Efforts beyond previously noted signs and public announcements should be the focus of the discussion.

IR Number 5:

Source: Yellowknives Dene First Nation

To: Aboriginal Affairs and Northern Development Canada

Subject: Private versus public information

Reference:

Preamble:

YKDFN advocate the necessity for reporting the performance of reclamation to be a public process. For example, public reporting is critical to understand:

- If reclamation activities are being completed on schedule
- Reclamation of mine components are being conducted as designed/planned
- If there are deviations in reclamation planning as a result of new information
- Results of reclamation monitoring with comparison to predictions
- Comparison of residual effects to predictions
- When mine components are successfully reclaimed and by what standard
- Results of internal and 3rd party audits

There is a general impression that the Federal Government has been moving towards limiting public access to data. A move towards increased secrecy is concerning as was the Projects admission that data would be held from the public.

Request:

- i. AANDC to summarize the information (i.e., reports, documents) that will be available to the public throughout the reclamation duration of Giant mine. Without limitation, the response should focus on public reporting that details the performance of reclamation, with consideration to the items listed above.
- ii. AADNC to summarize the information (i.e., reports, documents) that will not be made public. Without limitation, the response should focus on public

reporting that details the performance of reclamation, with consideration to the items listed above.