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Your file - Votre référence
2BE-JAC

Our file - Notre référence
9545-3-2JACG / CIDMS #104697

September 15, 2006

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Sent via email

Re: 2BE-JAC - Twin Mining Corporation - Jackson Inlet Project - Licence renewal application

On behalf of Indian and Northern Affairs Canada (INAC) I have reviewed the above-mentioned application. The following specialist advice has been provided pursuant to INAC's mandated responsibilities for the enforcement of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NW&NSRT), *Arctic Waters Pollution Prevention Act* (AWPPA), and the *Department of Indian Affairs and Northern Development Act* (DIAND Act).

Background Information

Twin Mining Corporation (Twin Mining) is applying for a licence renewal to permit the use of water and disposal of wastes associated with its Jackson Inlet Project. This Project has a 20-person camp established in 2001 which comprises of 8 wood frame canvas tents in the Jackson Inlet area of Baffin Island's Brodeur Peninsula. The camp has a general coordinate of 73°16'36.2"N, 88°16'15.5"W (NTS Map 58D/8) and is positioned on limestone bedrock 200 m south of the Jackson River, approximately 40 metres (m) above the River's highwater level. Jackson Inlet is 10 kilometres west of this area. The proponent wants to continue its diamond exploration program. This program comprises of land-based drilling operations, trenching/bulk sampling, soil sampling, and geophysical analyses within a 2,962 square kilometer area. To date, two diamond-bearing kimberlite pipes have been identified.

The submitted licence application form requests the consumption of 20 litres (L) of freshwater for domestic purposes and 10,000 L to support land-based drilling operations on a daily basis. Domestic water will be consumed from the Jackson River and diamond drills will employ water from nearby sources. Camp gray water, sewage, and drilling wastes will be directed to sumps that will be reclaimed once decommissioned. Solid wastes (including combustible materials) will be delivered to a designated landfill for proper disposal. All empty fuel drums/barrels will be back-hauled to the designated supplier for disposal/recycling.

Project specific spill contingency and abandonment and reclamation plans were submitted for review.

INAC Comments

Indian and Northern Affairs Canada recommends that the Nunavut Water Board consider the

following comments when reviewing the submitted licence application.

CAMP OPERATIONS

- INAC recommends the use of an approved incinerator for the disposal of combustible wastes.
- INAC recommends that the ashes of burned combustible wastes be raked to remove non-combustible items (e.g., iron nails and tinfoil). Raked ashes should either be buried on-site or delivered to an approved waste disposal facility.

DRILLING OPERATIONS

- All sumps, whether for the disposal of gray water or drilling wastes, shall be positioned at least 30 m from the high water mark of nearby water bodies. Furthermore, all sumps shall be backfilled and contoured to match the surrounding landscape prior to the end of the project's field program.
- Should a drill hole penetrate below the permafrost layer, the drill hole should be permanently sealed and capped to prevent induced contamination of groundwater or salinization of surface waters due to an artesian flow.
- If the proponent penetrates below the permafrost layer, INAC requests that the proponent notify the Nunavut Water Board and itself the recorded depth of permafrost future reference and data management purposes.

BULK SAMPLING PROGRAM

- INAC recommends that the Nunavut Water Board require the proponent to submit detailed descriptions of its proposed bulk sampling program. Of particular interest, INAC suggests that topographic maps of the affected areas, notification of any nearby water bodies, the amount of material to be trenched at each designated area, and the location of all fuel caches be provided for review.
- INAC recommends that the licence specify that all trenching activities shall be performed in areas situated at least 30 m above the high water mark of nearby water bodies.

SPILL CONTINGENCY

- Upon receipt of a licence, the Spill Contingency Plan should specify that it is applicable for the entire duration of the designated licence term.
- Please note that the Spill Contingency Plan does not include the correct 24-hour Spill Report Line contact number. The phone number should read **(867) 920-8130** and the fax number used to submit report form is **(867) 873-6924**. INAC recommends that this information be included in the Plan in addition to a copy of the Nunavut Spill Report Form posted on the <http://ftp.nunavut.ca/nwb> website.
- INAC recommends that an emergency contact list be provided in the Spill Contingency Plan. This list should include the contact information for the Inspector responsible for enforcing the terms and conditions of licences. This Inspector, an INAC Water Resources Officer, can be reached by office telephone at **(867) 975-4289** and fax at (867) 979-6445.

- INAC recommends that the Spill Contingency Plan be revised to include the name(s), job title(s), and 24-hour telephone contact numbers of those responsible for activating spill response measures. This information will ensure that the employee(s) who discovers a hazardous material spill can activate a timely response and provides a 24-hour point of contact for the authority investigating the spill.
- SECTION 32 of the Supplementary Questionnaire requests a description of the types and quantities of hazardous materials used to support this project. INAC recommends that the proponent specify this information in the questionnaire as well as the Spill Contingency Plan (i.e., number of 205 L barrels of diesel fuel, volume of gasoline, number of 100 lb propane barrels, and number of oil containers).
- All fuel caches shall be located above the high water mark of any water body. Further, it is recommended that some form of secondary containment, such as self-supporting insta-berms, be used when storing barrelled fuel on-site.
- The proponent shall ensure that all hazardous materials, including waste oil, receive proper treatment and disposal at an approved facility.
- INAC recommends that the Spill Contingency Plan be revised to include a map of the camp area which identifies the nearby fuel cache and location of spill response kits. Any other fuel caches established in the project area (i.e., those used to support the bulk sampling program) should be identified in subsequent maps.
- INAC recommends that the Spill Contingency Plan be revised to include the number of spill response kits, the locations in which they will be mobilized, and a list of their contents. Spill response kits should be made accessible at all fuel caches and places of fuel transfer.
- All applicable Material Safety Data Sheets for hazardous materials should be appended to the project's Spill Contingency Plan.
- INAC recommends that the proponent consult the *Contingency Planning and Spill Reporting In the NWT Guide* posted on the <http://ftp.nunavut.ca/nwb> website prior to initiating any revisions to its Spill Contingency Plan.

ABANDONMENT AND RECLAMATION

- INAC recommends that any open-burning of combustible project infrastructure be authorized by the licence Inspector (INAC Water Resources Officer).
- INAC recommends that the proponent consult the *Guidelines for Abandonment and Restoration Planning for Mines in the Northwest Territories* document posted on the <http://ftp.nunavut.ca/nwb> website.

Indian and Northern Affairs Canada requests notification of any changes in the proposed project, as further review may be necessary. Please do not hesitate to contact me if you have any questions or comments with regards to the foregoing.

Sincerely,
Original signed

David W. Abernethy
Water Resources Coordinator

cc. Jim Rogers - Manager of Water Resources, Indian and Northern Affairs Canada, Iqaluit