

## **SUMMARY OF COMMENTS/RECOMMENDATIONS**

**PROPONENT:** Nuinsco Resources Limited and Falconbridge Limited (jointly)  
**PROPOSAL NAME:** Bucko Lake Nickel Project  
**CLASS OF DEVELOPMENT:** Class 2  
**TYPE OF DEVELOPMENT:** Mining  
**CLIENT FILE NO.:** 4539.0

### **OVERVIEW:**

An Environment Act Proposal, dated June 26, 2000, respecting a nickel mining Development was submitted jointly by Nuinsco Resources Limited and Falconbridge Limited, and was received by the Department on July 13, 2000.

The Proponents propose to develop a property, held under Mineral Lease ML-031 by Bowden Lake Nickel Mines, a company controlled by Falconbridge Limited. Nuinsco Resources Limited will develop and operate the proposed mine, and entered into an Option Agreement with Falconbridge Limited on April 20, 2000, to have the option to acquire the Bucko Lake Project from Falconbridge Limited within five years.

The proposed mine site is located 4 kilometres south-west of the Town of Wabowden, and is accessible by an existing road developed in 1970. The mine site was explored by surface drilling and limited underground development via shaft sinking and lateral drift development to the orebody. That development resulted in the surface disposal of 35,000 tonnes of waste rock next to Bucko Lake, which will serve as the operating pad for the new mine site. Before any new work can commence on the further development of this mine, it must be de-watered into Bucko Lake. Due to the proximity of Wabowden, no camp site will be necessary for the workers at the mine site.

The Proposal was advertised in the Thompson Nickel Belt News on July 24, 2000. As well, copies of the Proposal were placed in Public Registries at: the Environment Library (Main) in Winnipeg; the Centennial Public Library in Winnipeg; Manitoba Eco-Network; the Thompson Public Library and the Wabowden Community Council office. The closing date for the receipt of public comments was specified as August 21, 2000.

Copies of the Proposal were also sent to the applicable members of the interdepartmental Technical Advisory Committee for their review and comment by no later than August 21, 2000.

Consistent with the standard recommendation of the department that the proponent encourage a program of public participation in the review of the Proposal, Nuinsco Resources Limited held a public meeting on August 16, 2000, at the Town of Wabowden, to explain their proposal to the public and to respond to any concerns or questions that

might be raised. The meeting was attended by about 75 local citizens. Copies of the written comments provided by the attendees were submitted to the department by Nuinsco.

As the licensing activity was initiated, the writer noted some discrepancies in the environmental impact model used by Agassiz North in the Environmental Assessment

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section of Nuinsco's Proposal. This prompted a review of the model and a request to Nuinsco to rethink and rework the model by working backwards from the boundary of the mixing zone to the minewater outfall into Bucko Lake such as to determine the allowable loadings and concentrations of pollutants to satisfy Manitoba's Surface Water Quality Objectives as well as the current and the expected revised federal mining effluent regulations.

### **COMMENTS FROM THE PUBLIC:**

Three persons responded to the advertised Proposal. The comments can be summarized as follows:

- 2 persons, Diana and Albert Colombe , wrote in to support the proposal.
- 1 person, who remained anonymous, supported the proposal, but complained of a potential injustice that may be imposed upon him by the Wabowden Council respecting some vacant lots (prepaid by him) next to his trailer lot in the trailer court where he lives, in that he may be forced to concede to their occupation out of necessity to find accommodations for the new workforce.

#### **Disposition**

Copies of all the received comments were placed into the public registries, with copies sent to the Proponent on August 17, 2000.

Most of the comments received by Nuinsco at the Public Meeting were positive for the proposed mine. Only about five comments submitted in writing at the meeting expressed some concerns covering subject matter related to the effect on the environment, the social impact of the new workers in Wabowden, increased truck traffic past the school, and maintaining communication with the community. The owner of the Wild Rice Production Licence on Bucko Lake expressed concern in writing to Nuinsco that the mine not be de-watered until after harvest, and that he be kept informed of the schedule to de-water the mine. Nuinsco responded positively to his requests.

### **COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:**

**Rural Development** commented that they had no land use or development concerns with this proposal as presented.

**Historic Resources** commented that they had no concerns with the Proposal.

**Manitoba Health** commented that the Proposal leaves them reasonably assured that no risk to the health of the people of the area around the mine will occur.

**Labour, WS&H** commented that the approval of this proposal should be conditional upon compliance by the proponent with Section 17 of MR 228/94 of the Workplace Safety and Health Act W210.

**Disposition**

The comments were taken into consideration in the development of the draft Licence.

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**Policy Co-ordination Branch** commented:

- Depositing potential acid-generating waste rock into Bucko Lake may require the authorization of the Minister of Fisheries & Oceans if Bucko Lake is still considered to be a fish habitat.
- While some parameters will exceed the Manitoba Surface Water Quality Objectives in Bucko Lake, no evaluation is made of the potential impacts on aquatic life in Rock Island Lake and further downstream.
- There is a question as to how much water will be removed from the mine, and whether the settling ponds will adequately handle the flows.
- The woodland caribou herd found at the Bucko Lake has been identified as a herd at high risk, with Bucko Lake being one of the primary calving areas for this herd. The proponent should carry out an assessment of the potential impacts of this Development on this herd, and address such issues as underground blasting, ventilation fans, generators, waste disposal, and site clearing, with the assessment carried out in consultation with regional wildlife staff.
- The minewater quality should be monitored.
- The existing resource use of Bucko Lake for wild rice harvesting should be recognized and any impact on it be mitigated.

**Disposition**

The comments were referred to the proponent for consideration and response. The proponent's responses were referred back to the Policy Coordination Branch and determined to be acceptable, however, because of some outstanding uncertainties, they recommended that an on-going review of the mining operation involving the proponent, Regional fisheries Branch and regional environmental staff should be carried out. Their concerns and the proponent's comments were considered in the formulation of the draft licence.

**Manitoba Highways & Government Services** commented that they have no concerns with the Proposal.

**Environmental Operations - Northern Region** commented:

- Have the holders of the community trap line been advised of the Proposal?
- The Licence should include the standard clauses respecting fuel storage, private sewage disposal, general recycling, and an emergency response plan.
- Respecting the disposition of potentially acid-generating waste rock, Option A was acceptable, Option B requires considerable additional information, and Option C is not recommended.
- Ore pad and waste rock pads are very close to the swamp. How will acid runoff be treated?
- Is any form of progressive rehabilitation being considered for potentially acid-generating waste rock.
- How is (lime) sludge from the chemical treatment of minewater to be disposed of?
- Untreated surface water for drinking water at the mine site is not an approved source.
- Discharge from the settling ponds would be a final discharge point. Discharge from the two easterly seepage ponds should also be considered as final discharge points. Sampling Station D is not an appropriate final discharge point due to the added dilution from the swamp.

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**Disposition**

The comments were referred to the proponent for consideration and response. The proponent's responses were referred back to Environmental Operations and determined to be acceptable. Their concerns and the proponent's comments were considered in the formulation of the draft licence.

**Water Quality Management** commented:

- The proposed water quality monitoring program appears reasonable but lacks detail on the specific parameters to be monitored at the different time intervals, and two, instead of one sampling period per winter and summer quarter should be implemented for at least the first two years.
- Annual sediment samples should be collected at the inlet and outlet of Rock Island Lake in order to determine the extent, if any, of heavy metals transport.
- There is no identified protocol for determining questionable (potentially acid-generating) material in the field.
- The settling ponds should be managed so that discharge from these ponds will not have an adverse effect on water quality in Bucko Lake beyond the mixing zone.
- Treatment options may be needed if aluminum and zinc concentrations increase beyond acceptable levels. The proposal does not indicate what type of treatment would be implemented, nor how any residual sludges from the treatment system would be handled.
- Ammonia concentrations need to be attenuated in the mixing zone of Bucko Lake.

- Phosphorus needs to be watched to ensure that excessive loadings are not occurring to downstream waterways.
- Disposing of reactive waste rock into Bucko Lake at decommissioning may be questionable due to the lake's shallow nature.

Disposition

The comments were referred to the proponent for consideration and response. The proponent's responses were referred back to Water Quality Management and determined to be acceptable. Their concerns and the proponent's comments were considered in the formulation of the draft licence.

**Canadian Environmental Assessment Agency (CEAA)** commented that the application of the Canadian Environmental Assessment Act with respect to this project will not be required, however they pointed out that Fisheries & Oceans and Natural Resources Canada will require more information.

**Environment Canada** commented:

- The report does not provide any information on the use of Bucko Lake by migratory birds. Additional information should be provided in this regard and on possible impacts as a result of the Development.
- The report concludes that Bucko Lake and Rock Island Lake may not support a year-round sport fishery. Additional information is requested on other fish species (seasonal and year-round) and any required mitigative measures.
- They recommend that additional confirmatory testing be conducted on the waste rock to the extent needed to adequately identify any potential acid-generating waste rock.

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- The proposal relies on a mixing zone in Bucko Lake to bring certain parameters within the Manitoba Surface Water Quality Objectives. The Fisheries Act does not recognize that concept and requires any substances being discharged into water frequented by fish to be non-deleterious at the end-of-pipe.
- Before any waste rock can be deposited into Bucko Lake, as one option has it for reactive waste rock, authorization may be required of the Minister of Fisheries if the Lake is considered to be fish habitat., and may require approval of the Governor-in-Council under s. 35 of the Migratory Birds Regulations if Bucko Lake is frequented by migratory birds.

Disposition

The comments were referred to the proponent for consideration and response. The proponent's responses were referred back to Environmental Protection and determined to be acceptable. Their concerns and the proponent's comments were considered in the formulation of the draft licence.

**Fisheries and Oceans Canada** commented:

- There is no conclusive evidence in the proponent's submission to prove the potential to support fish no longer exists in Bucko Lake. Therefore, DFO-HMD adopts a precautionary approach and assumes fish presence and fish use of the Bucko Lake habitat.
- To initially de-water the mine, 19 million litres of water will be released within a 3 week period. What time of the year will this occur, what will be its impact on the lake level, and what is the ability of the outlet channel to remain stable under such conditions?
- During the operation of the mine 1450 m<sup>3</sup>/day will be released into Bucko Lake while 310 l/min will be withdrawn. What will be the net result on water levels in the lake and downstream and the implications for fish habitat?
- DFO requires that all intakes in fish bearing waters to be screened according to the "Freshwater Intake End-of-Pipe Fish Screen Guideline".
- A discrepancy exists in that the proponent indicates that none of the waste rock material will be acid-generating while Lakefield Research concludes that the waste rock will not likely be acid generating but additional testing is recommended.
- The 10% mixing zone concept is not recognized by the Fisheries Act. Any substances deposited into water frequented by fish must not be deleterious.
- Disposal of 30,000 tonnes of waste rock into Bucko Lake would destroy fish habitat. Other disposal options would have to be proven to be not viable before authorization for such an undertaking could be considered.

#### Disposition

The comments were referred to the proponent for consideration and response. The proponent's responses were referred back to Fisheries & Oceans. No rebuttal was submitted. Their concerns and the proponent's comments were considered in the formulation of the draft licence.

#### **PUBLIC HEARING:**

No public hearing was requested by any person following the advertisement of the Proposal.

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#### **RECOMMENDATION:**

A draft Environment Act Licence, authorizing the construction and operation of the proposed Development is attached for the consideration of the Director of Environmental Approvals. It is recommended that the licence, if approved, be assigned to the Northern Region for administration, surveillance, monitoring, ongoing compliance evaluation and enforcement responsibilities.

PREPARED BY:

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