REPORT ON ADEQUACY ANALYSIS OF VOISEY'S BAY NICKEL COMPANY ENVIRONMENTAL IMPACT STATEMENT





Kuujjuaq, March 27 1998

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Dear Brian

Please find enclosed a copy of our Report on Adequacy Analysis of Voisey's Bay Nickel Company Environmental Impact Statement. A copy is also being send to Ms Mary Webb. The document is also send to you by E-Mail.

If more copies are required, please let me know as soon as possible.

Yours truly

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REPORT ON ADEQUACY ANALYSIS OF VOISEY'S BAY NICKEL COMPANY ENVIRONMENTAL IMPACT STATEMENT

Submitted to

VOISEY'S BAY ENVIRONMENTAL ASSESSMENT PANEL

Submitted by



March 1998

Introduction

Makivik Corporation was created in 1978, by provincial legislation, pursuant to the James Bay and Northern Quebec Agreement, signed in 1975. Makivik Corporation represents the Nunavik Inuit, who currently number approximately 8,600, with respect to matters of a social, cultural, economic, and political nature including areas related to treaty amendments and negotiations, environmental impact assessments, negotiating impact and benefit agreements with developers, research including the continuing development of the Nunavik Inuit land use and ecological knowledge data base, renewable resource development and a variety of local and regional economic development activities. Makivik Corporation represents Nunavik Inuit with respect to their aboriginal title and aboriginal rights in and to Labrador and the Labrador offshore.

Makivik Corporation submits to the Review Panel the following document as its intervention to the adequacy of Voisey's Bay Nickel Company's Environmental Impact Statement to the Guidelines for the Review of the Voisey's Bay Mine and Mill Undertaking of June 20, 1997.

We understand the purpose of this process to be for the Review Panel to gather comments on "whether the Environmental Impact Statement adequately addresses each requirements of the Guidelines by providing sufficient information to support meaningful discussion at public hearings" (News Release. Government of Canada. February 20,1998)

Environmental assessments are to ensure that "projects are planned with the rights of all parties in mind" (Environment, Government of NFLD and Labrador. Environment Assessment. A Guide to the Process). They constitute an exercise, for the Proponent, governments, intervenors and society, to protect the environment and to ensure that maximum benefits are realized by all.

To Nunavik Inuit, environmental assessment is also a mechanism for protecting and promoting our rights and interests. Acceptance by the Federal government of our Statement of Claim to Labrador in 1992 and the signing of a Framework Agreement in August 1993 to launch negotiations with respect to Nunavik Inuit aboriginal title and rights in the Nunavik Marine Region and Labrador and the Labrador offshore, formalizes the

requirement that our expertise, views and concerns be taken into account during this current process.

We have studied the Proponent's Environemental Impact Statement (EIS) according to the understanding stated above as well as with the intention of protecting and exercising our Rights in Nunavik, Labrador and in the offshore areas. While we appreciate that Canadian Environmental Assessment Agency (CEAA), by providing funding, has recognized that Nunavik Inuit have a role to play in this process, the level of funding was insufficient to carry out an exhaustive analysis of the adequacy of the EIS with the Guidelines. Our evaluation therefore pertains mostly to certain articles of the Guidelines that are of particular concern to the Inuit of Nunavik.

This report identifies a number of inadequacies in the EIS and for each a recommendation is submitted to the Review Panel. Before presenting these inadequacies, there is one principal inadequacy, related to fundamental principles of any environmental assessments, that has to be dealt with immediately.

The Guidelines' spirit is presented at the beginning of the document and the objectives are set for each sections of the Guidelines. The Proponent's approach, however, is to carefully and independently answer each article of the Guidelines. There is no synthesis of the various answers; no references or relations are made between the responses and the spirit or the objectives set out by the Panel. This segmented approach makes it almost impossible to know if the spirit has been respected and the objectives reached.

Sections 1, 2 and 3 of the Guidelines are not included in the Table of Concordance of the EIS. Section 1 pertains to the purpose of the Guidelines, it is descriptive and we suppose that the Panel is not expecting any responses from the Proponent. However, sections 2 and 3 deal with fundamental principles of any environmental assessments: consultation, traditional ecological knowledge, land claims, sustainable development and the precautionary principle. Since, as just mentionned, it is difficult to find in the EIS responses to these two sections, we recommend that the Proponent have sections of the EIS discussing these principles: how do they apply to the Inuit of Nunavik, how the aboriginal rights and aboriginal title of the Inuit of Nunavik in Labrador will be respected, and what will be the impacts of the Undertaking on these aboriginal rights and title.

Be advised that the present Makivik submission is made on a without prejudice basis to Nunavik Inuit aboriginal title and aboriginal rights in and to Labrador and the Labrador offshore and under reserve of all rights and recourses of Nunavik Inuit with respect to any development or other activities in areas of Labrador or the Labrador offshore in which Nunavik Inuit have aboriginal title and aboriginal rights or in areas which are subject to land claims negotiations between Nunavik Inuit and Canada.

Analysis

In our analysis the Guidelines'article under discussion is repeated; the deficiencies are indicated and specific recommendations to correct these deficiencies are made. In some cases, comments are added.

Guidelines Paragraph

3.3 Sustainability Assurance

Promotion of sustainable development is a fundamental purpose of environmental impact assessment, and the MOU specifically requires the Panel to take into consideration three factors that are directly pertinent to the task of assuring sustainability (i.e. ensuring that the full costs of development are identified, mitigated, compensated or offset). These factors are: the extent to which biological diversity is affected by the Undertaking; the capacity of renewable resources that are likely to be significantly affected by the Undertaking to meet the needs of present and future generations; and, the extent of application of the precautionary principle to the Undertaking.

Deficiency

While the Proponent states that VBNC's commitment to the principle of sustainable development during all phases of the Project is reflected in VBNC support of the principles and goals of the Whitehorse Mining Initiative" (page 1-14) there is no explanation as to how sustainable development will be assured: there is no discussion on how the three factors mentionned by the Panel will be respected.

- R-1 In order to assess the effects of the Project, a discussion as to how the concept of sustainable development has been integrated in the EIS is needed.
- R-2 The Proponent should cross reference its answer to this guideline paragraph in the Table of concordance.

3.4 Application of the Precautionary Principle

(4th Paragraph): The Proponent shall indicate how the Undertaking conforms to the precautionary principle in at least the following ways: a) that in designing and operating the Undertaking priority has been given to strategies that avoid the creation of adverse impacts; b) that the control of deleterious outputs or other potentially damaging activity goes beyond current emission standards where warranted by the potential environmental effects; c) that contigency plans address explicit worst-case scenarios and include risk assessments and evaluations of the degree of uncertainty; d) that monitoring programs are designed to ensure rapid response and correction where adverse effects are detected; and, e) that liability and insurance regimes are established that hold the Proponent and its contractors accountable for adverse effects and associated damages, and their limitation and control, throughout the life of the Undertaking, including its decommissioning and rehabilitation.

Deficiency

While the Undertaking may conform to the precautionary principle, it is unclear as to how exactly the proponent will conform to such principle: there is no synthesis or summary indicating such conformity.

- R.1 The Proponent should make a synthesis of its conformity with this principle.
- R.2 The Proponent should cross reference this guideline paragraph in its Table of concordance.

4.1 Comprehensive Public Involvement

Public involvement is a cental objective of the overall review process and a means to ensure that the Proponent addresses public concerns. In preparing the EIS, the Proponent shall first consult with residents and organizations in affected communities, other interested organizations, resource users and relevant government agencies. In particular, these Guidelines require the Proponent to demonstrate an understanding of aboriginal rights, interests, values and concerns and to recognize and respect them in planning and carrying out its proposed activities. Therefore, aboriginal and settler people who have traditionally used the area must be consulted.

Deficiencies

- D-1 In the description of the communications and public consultation program, there is no mention of information or consultation sessions with other interested organizations and resource users.
- D-2 While the Proponent mentions that there are land claims by other groups that the LIA and the Innu, he does not demonstrate an understanding of the aboriginal rights, interests, values and concerns of these groups.

Recommendations

- R-1 The Proponent should demonstrate how and when the Inuit of Nunavik were consulted and how the results of these consultations can be integrated in the EIS.
- R-2 The Proponent should show how he intends to deal with aboriginal title and rights and land claims of other groups than the LIA and the Innu of Labrador.

Comment

Public involvement is the cornerstone of comprehensive environmental impact assessment. Inadequate involvement of any one sector of the effected public has repercussions throughout the EIS. The Inuit of Nunavik have stated their willingness to participate in a consultation process and this was made clear in our presentation of May 13, 1997 to the Panel regarding the Draft Environmental Guidelines. In our statement we wrote: "Efforts to establish communication with companies involved in mining activity also failed. This led Makivik Corporation, in the Fall of 1995, to put all mining companies involved in exploration or pre-development activities in our area of interest on notice as to Nunavik Inuit Aboriginal Rights and Interests in Labrador and the offshore. Similar information was also publicized in all major Canadian mining journals" (page 2).

4.2 Study Strategy and Methodology

(2nd paragraph). The Proponent shall explain and justify methods to predict impacts of the Undertaking on the valued components of the Environment, on the interactions among these components and on the relations of these components to the overall ecosystem and socio-economic environment. The information presented must be substantiated. In particular, the Proponent shall describe how valued components of the Environment were identified and what methods were used to predict and assess the effects of the Undertaking on these components.

Deficiencies

- D-1 The Proponent has not provided enough information for a clear understanding as to how the VECs were selected from the issues listed in Appendix 6 A.
- D-2 The Proponent has not provided enough information for a clear understanding as to how the concerns of Table 6.1 were selected.

Recommendation

For a better understanding of the methodology, the Proponent should provide more details on both of these matters.

6.1 Spatial Boundaries and Scale

In determining the spatial boundaries to be used in assessing impacts, the Proponent shall consider the following: a) the physical extent of the Undertaking itself, and the territory the Proponent will control through lease or other tenure arrangements; b) the extent of aquatic and terrestrial ecosystems potentially affected by the Undertaking (e.g., impact areas could be defined by the range of the George River caribou herd or by the extent of a plume of potential contaminant transport to the downstream point of no observable or measurable impact), giving the full consideration to aboriginal knowledge; c) the extent of land use for subsistence, commercial, cultural, recreational, spriritual and aesthetic purposes by aboriginal and settler persons and communities whose territories encompass (a) or (b), as indicated by information provided by LIA and Innu Nation in the context of this review, as well as any interests of neighbouring aboriginal groups as defined in lands and resources within the impact area as indicated by (a) or (b); ...

Deficiency

In determining the spatial boundaries to be used for assessing impacts, the interests of neighbouring aboriginal groups does not seem to have been considered in chapters 1, 2 and 20 of the EIS.

- R-1 The Proponent should integrate the interests of neighbouring aboriginal groups in determining the spatial boundaries of the Project.
- R-2 If the Proponent has taken into consideration the interests of neighbouring aboriginal groups in other sections of the EIS, then it should be clearly indicated.

7.0 The Proponent shall provide a description of the Undertaking that includes the following: a) an explanation of the need for the Undertaking and an analysis of alternatives available to the Proponent if the Undertaking does not proceed;...

Deficiency

Prices of nickel and world supply are two main factors in the viability of a mine. In its discussion on the viability of the Project (section 3.2.2 of EIS) the Proponent does not make projections for metal prices nor for the nickel supply on the world market.

Recommendation

The Proponent should make projections for next 5-10 years regarding nickel prices and availability of supply on the world market.

7.5 Future developments

The Proponent shall discuss the potential for further increasing the capacity of on-site development and infrastructure in response to new ore deposits, whether discovered by the Proponent or other parties.

Deficiencies

- D-1 The Proponent does not discuss how and by how much the mill capacity can be increased and if a new mill might be necessary. Moreover the numbers and location of potential mine sites are not mentionned.
- D-2 The Proponent does not explain how the infrastructures and the maritime transport will be affected if the mill capacity is increased, another mill is build or if new important sites are exploited.

Recommendation

The Proponent should discuss clearly the potential for an increase in production and the relations that this increase may have on the infrastructures.

8.2 Biological Environment : Baseline Description

Without limiting the range of considerations, the Proponent shall consider the following components, the interactions between these components, and their interactions with the physical and biological environment, primarily at the geographical scale indicated in section 6.1 (b) and 6.1 (c);

a) Regional occurrence and distribution, range, abundance, and population status, including seasonal variation and variability over multiple years;...

Deficiencies

- D-1 [p11-38] The time of spawning of brook trout likely varies with latitude. It is not clear if the spawning dates are specific to the site (as measured through field studies) or based on data from southern Canada.
- D-2 [p11-40] Lake trout distribution is not limited to the northern half of the district but to the southern half.
- D-3 [Section 13] The estimates of abundance for harp and bearded seals are outdated. Confidence intervals should be given for the population estimates for all seal species and should be specific to the region, rather than Canada as a whole.
- D-4 [p13-9] Ringed seals give birth (whelp) in subnivean lairs within snowdrifts on the ice at a time earlier in the season than that of the aerial surveys (May). Breeding occurs shortly after parturition. The seals are more visible in May, not necessarily more abundant, because the snow has melted making it easier to see the seals.
- D-5 [p13-10] Ice conditions determine the distribution of breeding habitat of ringed seals, but in the open water season, distribution and abundance is more likely dependent on food supply.
- D-6 [p13-14 margin] A Grumpus is interpreted as being a Minke (= Piked) whale. Grampus is a toothed whale, which does not occur in these waters, but is a term which European whalers used for killer whales. On the Labrador, it may mean medium sized baleen whale.

- D-7 [General Comment] There is no mention of other whale species apart from Minke whales and belugas. Historically, Right whales (possibly bowheads) were hunted by the Moravians. Humpback whales can occur as far as Cape Chidley on the Labrador Coast.
- D-8 [Section 15.1] The geese abundance data is out-of-date (1987). There has been changes in migratory Canada geese populations in the Atlantic Flyway since then.
- D-9 [Section 16.1.3] Given the migratory patterns of caribou, it would be very difficult to assess if mining operations had an effect on this species. Therefore, it is incorrect to say that there is no effect.
- D-10 Black bears can eke out an existence in poor habitat [Section 17.1.3.1], therefore, how can they be a good indicator of habitat health [Section 17].
- D-11 [Section 18.1.3.4] Beluga whales: Beland (1996) is not in the reference list of Literature Cited.

- R-1 Use a more specific reference than McCubbin et al (1990) which is cited in Section 11 of the EIS.
- R-2 Replace northern with southern in the text of the EIS page 11-40 as per reference (Scott and Crossman 1973 p.222).
- R-3 Clarify the status of the information which is available or unavailable concerning these seal populations.
- R-4 Correct the text of the EIS.
- R-5 Further consult the literature.
- R-6 Verify if this is the local name specific to Minke whales (*Balaenoptera acutorostrata*).
- R-7 A more thorough review of the distribution of whale species.

- R-8 Update Canada geese population estimates using more recent Canadian Wildlife Service (CWS) data.
- R-9 Change the wording of the text of the EIS to state that an effect on caribou would be difficult to measure.
- R-10 Give a more elaborate explanation.

8.3 Socio-economic Environment : Baseline Description

(3rd paragraph) The Proponent shall identify, to the best of its understanding, the various perspectives and aspirations for the future within the region. In this context, the Proponent shall consider the relationship between the Undertaking and any land claims respecting the general area.

Deficiency

While other Aboriginal rights, titles and interests in Labrador are listed (Makivik Corporation, Schefferville Indian Council of Montagnais, Labrador Metis Association and the Quebec Naskapi) the Proponent has not consider the relationship between the Undertaking and these land claims, rights, titles and interests. The Proponent has not identified the various groups perspectives and aspirations for the future of the region.

Nunavik Inuit have an interest in any decisions taken which will bring change to the Ungava/Labrador peninsula. Nunavik Inuit have a demonstrated overlapping land claim with the Labrador Inuit, one that is based on an accepted claim. Directions which are being taken within the Labrador land claim negotiations will have an impact on future of the area of overlapping interest (i.e. Torngat National Park, management regimes). These directions cannot be seen in isolation of negotiations which are also taking place with the Company to achieve an impact and benefit agreement. All of these events are interrelated.

Recommendation

The Proponent should discuss the effects and relationship of the Undertaking with the land claims and related negotiations ongoing with the Labrador Inuit and Innu Nation on the land claims of other Aboriginal groups.

8.3 Socio-economic Environment: Baseline Description

(4th paragraph) The Panel is aware that information on socio-economic matters must be obtained from a combination of the following sources: existing literature; existing administrative and monitoring data held chiefly by responsible governments and agencies; social surveys; and aboriginal knowledge. Ethical social research standards require that the last two can only be obtained with the consent and cooperation of local residents. The Panel requires the Proponent to demonstrate that it has made best efforts either to obtain this information itself, where appropriate, or to assist the Innu Nation, the LIA or other appropriate organizations and persons, to provide it for inclusion in the EIS, or to present directly to the Panel during the course of the review.

Deficiency

The only effort made by the Proponent was, as mentionned in section 7.1.4 of the EIS: Each group was contacted in writing during September 1997 and was asked to provide information on Aboriginal knowledge. As of October 31,1997 no response was received from any of these organizations.

The guidelines ask the Proponent to demonstrate that is has made "best efforts". Is a letter asking for information a best effort? Moreover, as far as we know, this letter has never been received by Makivik.

- R-1 The Proponent should contact all of these groups in order to meet with them.
- R-2 The presentations made at the Public Hearings by each of the groups should be integrated in the EIS.

9.0 Impact assessment, mitigation measures, residual effects and cumulative environmental effets

This section shall: a) identify what changes may be expected to occur as a result of the Undertaking including accidents, malfunctions and unplanned events. The effects of worst case scenarios shall be addressed as appropriate; b) assess these effects and their significance; c) describe and justify the Proponent's plans to mitigate the adverse effects of the Undertaking and enhance its beneficial effects and assess the likely effectiveness of those plans; d) identify any residual effects of the Undertaking, and the Proponent's plans to compensate for these; and, e) assess cumulative environmental effects of the Undertaking.

Deficiencies

- D-1 [Section 13.2.6] A survey for marine mammals prior to blasting is not a mitigating measure.
- D-2 [Section 14.2.1] Definition of slow versus quick; no time frame is stated.

- R-1 State the mitigation measure appropriate to blasting in the presence of marine mammals.
- R-2 Define slow, quick, more rapid etc in absolute terms (discrete time).

- 9.1 Physical and Biological Impacts and Mitigation
- i) Caribou, including migration timing and routes;

Deficiencies

- D-1 [Section 16.2.5] Given that the commercial harvest of caribou is closely regulated by provincial authorities in Quebec, Newfoundland and Labrador, the statement concerning over-harvesting by commercial operations is inappropriate.
- D-2 In Section 16.1.4, it is mentioned that In the absence of the Project, the Herd within the Landscape Region would be likely to decline over the next 25 years due to natural population fluctuations and in Section 16.2.5, it is stated that harvesting of caribou by Labrador residents will continue in the future, although harvest success may be expected to decline if the Herd size becomes smaller. Moreover, it is said if the Herd declines, harvesting by Labrador residents may decrease, and interactions between caribou and mineral exploration activities and low-level flying will also become less frequent.

To say that, if there is less caribou, the harvest will be less and the interaction with mineral exploration will be less frequent is stating the obvious. There is no discussions regarding the real impacts of this decline on the native populations of Labrador and Quebec.

- R-1 Remove the reference to over-harvesting from commercial operations.
- R-2 The Proponent should discuss more thouroughly the cumulative effects of the mine on the caribou herd and on the Native populations of Labrador and Quebec.

- 9.1 Physical and Biological Impacts and Mitigation
- k) Edible quality of country food, including contaminant loading, and other factors such as taste and texture as measured by local residents.

Deficiencies

- D-1 [Section 18.2.3.3 last paragraph] Sentence concerning polar bears and fuel spills is unclear.
- D-2 [Section 18.2.3.5 & 18.2.4.3] The statements concerning polar bears versus beluga in their capacity, as mammals, to metabolize hydrocarbons ingested with tainted food appears to be contradictory.

- R-1 Clarify sentence.
- R-2 Include more information on this subject from the scientific literature.

9.2 Socio-economic Impacts and Mitigation

(5th paragraph) The Proponent shall also present its understanding of how proceeding with the Undertaking in advance of land claim settlements might adversely affect settlement negotiations and aboriginal rights and interests.

Deficiency

The various Lands Claims are presented in section 1.4.1 of the EIS and the comprehensive land claims of the Innu and the Inuit of Labrador are briefly discussed in section 20.2.2.1. Nowhere, however, is there a discussion as to how all of the land claims might be adversely affected if the Undertaking proceeds in advance of settlements.

Recommendation

The Proponent should discuss the relationship between all of the land claims and the Project.

9.2 Socio-economic Impacts and Mitigation

(7th paragraph) The assessment of impacts and the proposed mitigation measures shall include, but not limited to, effects of the Undertaking on the following matters: a) regional and community demographics, in particular, intra-regional migration with respect to:

Deficiencies

- D-1 For regional and community demographics, the Table of concordance refers to volume 4 section 21.5.7. This section does not exist.
- D-2 There has been a significant migration of people to Kangiqsualujjuaq from Nain over the past years. If the economic situation in Nain improves as a result of the proposed project, will people return? What does this mean for families and community of Kangiqsualujjuaq?

- R-1 The Proponent should correct this error.
- R-2 Population movements between the two communities are definitely part of *regional demographics* and this should be considered by the Proponent.

9.4 The Proponent shall identify and assess the cumulative environmental effects of the Undertaking in combination with other projects or activities that have been, or will be, carried out in Labrador or within the areas specified in 6.1 (b) and 6.1 (c), as appropriate. The approach and methodologies used to identify and assess cumulative impacts shall be explained.

The assessemtn of cumulative environmental effects of the Undertakin shall include, but not be limited to: a)......; b)......; d) hydro power developments.

Deficiency

The Lower-Churchill Hydroelectric project is not mentionned in the EIS. Since this project is likely to be build in a near future, the cumulative impacts of these two projects should be assessed.

Recommendation

To include in the assessment of the cumulative impacts of the various projects the Lower-Churchill Hydroelectric project.

Comment

The Lower-Churchill Hydroelectric Project is in fact, more than any other development project in the region, directly linked with the Voisey's Bay Project: it will supply electric power to the smelter to be built in Argentia. A definite relation exist between the two projects and their cumulative impacts should be addressed.

10-1 Monitoring

The Proponent shall describe the environmental and socio-economic monitoring programs to be incorporated into all phases of the Undertaking...

The proposed approach for monitoring shall be described...

Deficiency

The Proponent does not provide a description of how the impacts on the human environment will be monitored, particularly with respect to social organization.

Recommendation

The Proponent should identify a programme to monitor impacts on the human environment.