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20 August, 2010

Project# EA1011-001
NRCan # NWT- 154

Mackenzie Valley Environmental Impact Review Board
Box 938, #200 Scotia Centre
5102-50th Avenue
Yellowknife, NT X1A 2N7

Re: Environmental Assessment of the 'Nechalacho Rare Earth Element Project'

The purpose of this letter is to advise the Mackenzie Valley Environmental Impact Review Board (the Board) that Natural Resources Canada (NRCan) is identifying itself as a Responsible Minister for this project because we may have a regulatory responsibility, under the federal *Explosives Act*, to issue a factory licence for the manufacture of explosives at the proposed Nachalacho mine site.

In response to the Board's letter of July 7, 2010, requesting information regarding the scope of the environmental assessment, NRCan offers the following information:

1. What biophysical, socio-economic and cultural issues should the Review Board consider during the environmental assessment and why?

NRCan does not have any comments to provide on specific biophysical, socio-economic and cultural issues that the Review Board should consider during the environmental assessment. However, depending on the what issues are identified by the Review Board, NRCan may be able to provide scientific and technical information related to the environmental effects from the project relevant to geochemistry (acid rock drainage and metal leaching), hydrogeology, geohazards, earthquakes and seismic hazards. A summary of areas of NRCan's technical expertise is included in Attachment 1 to this letter.

2. What physical works and activities should the Review Board consider as part of the development?

NRCan's regulatory interest is with respect to the proposed explosives factory and magazine(s). We would ask that the Board consider the proposed construction, operation, and future decommissioning of these facilities as components of the broader development to be assessed. The information that NRCan typically expects to review through an environmental assessment process for an explosives factory or magazine is included in Attachment 2 to this letter.



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3. What area and what time period should the Review Board use for assessing the potential impacts (including project-specific and cumulative impacts) from the proposed development?

Natural Resources Canada does not have any comments to provide.

4. What evidence (if any) from previous studies, management plans, or environmental assessments should the Review Board transfer onto the public record for this environmental assessment, and why?

NRCan's CANMET (formerly part of Energy, Mines, and Resources) has information from previous studies (e.g. Pine Point Lead-Zinc plant) in the area. At the Board's request, NRCan can transfer these to the public record.

5. What alternative ways of developing the proposed project – to prevent potential significant adverse impacts – should the Review Board consider during the environmental assessment?

If economically viable, Natural Resources Canada encourages Avalon Rare Metals to consider alternative energy sources such as wind, biomass and/or geothermal power for heating or as supplementary power supply sources for the proposed Thor Lake mine, flotation plant and the hydrometallurgical facility. The use of these alternatives is a positive trend in the mining sector and is currently an active area of research under NRCan's multi-stakeholder Green Mining Initiative.

If the Board has any questions regarding NRCan's role, please contact the undersigned at (613) 995-2848 or by email at Shelley.Ball@nrcan.gc.ca

Sincerely,

Shelley Ball
Senior Environmental Assessment Officer
Natural Resources Canada

cc: Rob Johnstone (Sustainable Mining and Materials Policy Division, NRCan)
Isabelle Gagne (Explosives Regulatory Division, NRCan)



Attachment 1

NRCAN LIST OF EXPERTISE AVAILABLE

General Information

- National and international energy, forestry and mining policies.

Forestry

- Management of forests on Aboriginal and military lands;
- Ecology and forest ecosystems;
- Forest biodiversity;
- Biotechnologies;
- Climate Change;
- Entomology;
- Landscape and visual aspect;
- Forest fires;
- Pathology of forestry practices;
- Silviculture and regeneration;

Mines and Metals

- Explosives;
- Management of mine wastes (tailings and overburden), protection of surface water and underground water quality, acid mine drainage;
- Development of mining sites;

Energy

- Energy efficiency, new fuels;
- Energy technologies;
- Economic analysis for energy projects.

Earth Sciences

- Geographic Information Systems;
- Geological incidents (earthquakes/seismicity, landslides, flooding, deep water hazard, tsunamis, geomagnetism);
- Geomatics;
- Geophysics (shallow terrain and deep crustal);
- Geosciences (surface and underground geology, geomorphology, underground water,);
- Geotechnics and engineering geology;
- Permafrost occurrence, processes and stability;
- Glaciology;
- Groundwater and hydrogeology (flow, recharge, chemistry and aquifer delineation);
- Landscape process and stability (coastal, fluvial aeolian slope) and their response to climate change;
- Marine environmental and marine resource geosciences;
- Mineral and hydrocarbon geology and regional resource assessments;
- Remote sensing;
- Surveys on federal lands.



Attachment 2

Natural Resources Canada: Explosives Act in Environmental Assessments

The following information is typically required for completing the environmental assessment of the explosives factory or magazines:

- Explosives to be manufactured (typically ammonium nitrate fuel oil (ANFO) and/or emulsion/watergel).
- Maximum quantity of explosives at each facility.
- Infrastructures for manufacturing or storing explosive should be identified and include: explosives and innovation systems magazines, fuel storage, ammonium nitrate storage, maintenance/wash area, process vehicles and their parking area, any offices, warehouses, buildings, etc.
- Specified location (i.e., detailed site plan) of the various components of the facilities, with distances to vulnerable features such as dwellings, roads, camps, railways, bodies of water, etc. The proponent needs to demonstrate that safety distances required by the Explosives Regulatory Division (ERD) of NRCan have been considered and met.
- Fuel and ammonium nitrate storage plans. Storage of ammonium nitrate is to be in conformance with ERD guidelines.
- Liquid effluent disposal plans.
- Evaluation of worst case scenario (i.e. accidental explosion).
- Spill contingency plans.
- Details on any temporary explosive facilities to be used for starting the project must be provided, giving the same information requirements above. The temporary installations are often required before the other facilities can be put in place and as such are often more problematic for location, containment, etc.

Please refer to the NRCan Explosives Regulatory Division website for information on licensing, minimum distances requirements, etc., at <http://www.nrcan-rncan.gc.ca/mms-smm/expl-expl/erd-dre-eng.htm>