

NIRB File No.: 08EN015 INAC File No.: N2008C0007

NWB File No.: 2BE-QAM0813, 2BE-QAM0608

KIA File No.: KVL307C02

February 1, 2010

Honourable Chuck Strahl Minister of Indian and Northern Affairs Canada c/o Spencer Dewar, Manager Land Administration Indian and Northern Affairs Canada Iqaluit, NU

Via email: Spencer.Dewar@inac-ainc.gc.ca

Re: <u>Application Exempt from Screening Pursuant to Section 12.4.3 of the NLCA: Cameco Corporation's "Turqavik-Aberdeen Exploration" project proposal</u>

Dear Spencer Dewar:

On January 19, 2009 the Nunavut Impact Review Board (NIRB) received an application from Indian and Northern Affairs Canada (INAC) for Cameco Corporation's (Cameco) "Turqavik – Aberdeen Exploration" project proposal. The application is for an amendment to Cameco's Land Use Permit and Water Licence (INAC LUP No. N2008C0007, NWB No.: 2BE-QAM0813, 2BE-QAM0608).

Please be advised that the original project proposal (NIRB File No.: 08EN015) was received by the NIRB from INAC on February 13, 2008 and was screened in accordance with Part 4, Article 12 of the Nunavut Land Claims Agreement (NLCA). On April 4, 2008 the NIRB issued a 12.4.4(a) screening decision to the Minister of INAC and to the Kivalliq Inuit Association indicating the proposed project could proceed subject to the NIRB's recommended project-specific terms and conditions.

On November 2, 2009 the NIRB received an extension request from INAC for the Cameco project. After a thorough assessment of the extension request, the NIRB determined that the proposed extension did not significantly change the general scope of the original project activities and re-issued the original terms and conditions (Screening Decision Report dated April 4, 2008)

The INAC application, the original NIRB screening file and Screening Decision, 08EN015 are available from the NIRB's ftp site at the following link:

http://ftp.nirb.ca/SCREENINGS/COMPLETED%20SCREENINGS/ARCHIVE/2008_SCREENINGS/08EN015-Cameco%20Corporation%20-%20Turqavik-Aberdeen/1-SCREENING/

Please note that Section 12.4.3 of the NLCA states that:

"Any application for a component or activity of a project proposal that has been permitted to proceed in accordance with these provisions shall be exempt from the requirement for screening by NIRB unless:

- (a) such component or activity was not part of the original project proposal; or
- (b) its inclusion would significantly modify the project."

After completing a review of the information provided, the NIRB is of the understanding that the application received from INAC does not change the general scope of the original project activities, and the exceptions noted in NLCA 12.4.3(a) and (b) do not apply. Therefore, this application is exempt from screening as per Section 12.4.3 of the NLCA and the activities therein remain subject to the terms and conditions recommended in the original April 4, 2008 Screening Decision Report (attached).

If you have any questions or concerns, feel free to contact the NIRB's Technical Advisor, Sophia Granchinho, at 867-983-4607 or sgranchinho@nirb.ca.

Best regards,

Stephanie Autut Executive Director

cc: Rebecca Hunter, Cameco

Luis Manzo, Kivalliq Inuit Association Phyllis Beaulieu, Nunavut Water Board

Attachment: NIRB Screening Decision Report, File No.: 08EN015 (April 4, 2008)



SCREENING DECISION REPORT NIRB FILE NO.: 08EN015

NIRB File No.: 08EN015 INAC File No: N2008C0007 KIA File No: KVL307C02 NWB: 2BE-QAM-0608

April 4, 2008

Honourable Chuck Strahl Minister of Indian and Northern Affairs Canada Indian and Northern Affairs Canada Gatineau, Quebec Josie Kusugak President Kivalliq Inuit Association Rankin Inlet, NU

Via email: <u>Strahl.C@parl.gc.ca</u>

Via email: <u>tsandy@kivalliqinuit.ca</u>

Re: <u>Screening Decision for Cameco Corporation, Turqavik – Aberdeen Exploration Project</u> Proposal

Dear Honourable Chuck Strahl and Honourable Josie Kusugak:

The primary objectives of the Nunavut Land Claims Agreement (NLCA) are set out in section 12.2.5 of the Land Claims Agreement. This section reads:

In carrying out its functions, the primary objectives of the Nunavut Impact Review Board (NIRB or Board) shall be at all times to protect and promote the existing and future well-being of the residents and communities of the Nunavut Settlement Area, and to protect the ecosystemic integrity of the Nunavut Settlement Area. NIRB shall take into account the well-being of the residents of Canada outside the Nunavut Settlement Area.

Section 12.4.4 of the NLCA states:

Upon receipt of a project proposal, NIRB shall screen the proposal and indicate to the Minister in writing that:

- a) the proposal may be processed without a review under Part 5 or 6; NIRB may recommend specific terms and conditions to be attached to any approval, reflecting the primary objectives set out in Section 12.2.5;
- b) the proposal requires review under Part 5 or 6; NIRB shall identify particular issues or concerns which should be considered in such a review;
- c) the proposal is insufficiently developed to permit proper screening, and should be returned to the proponent for clarification; or
- d) the potential adverse impacts of the proposal are so unacceptable that it should be modified or abandoned.

NIRB Assessment and Decision

After a thorough assessment of all material provided to the Board (please see Procedural History and Project Activities in **Appendix A**), in accordance with the principles identified within Section 12.4.2 of the NLCA, the decision of the Board as per Section 12.4.4 of the NLCA is:

12.4.4 (a): the proposal may be processed without a review under Part 5 or 6; NIRB may recommend specific terms and conditions to be attached to any approval, reflecting the primary objectives set out in Section 12.2.5.

Recommended Project-Specific Terms and Conditions, pursuant to Section 12.4.4(a) of the NLCA

The Board is recommending the following or similar project-specific terms and conditions be imposed upon the Proponent through all relevant legislation:

- 1. Cameco Corporation (the Proponent) shall operate in accordance with commitments stated in all documentation provided to the Nunavut Impact Review Board (NIRB or Board) namely:
 - a. NIRB Part 2 Form Project Specific Information Requirements (January 2008)
 - b. Indian and Northern Affairs Canada (INAC) Application for Land Use Permit (February 2008)
 - c. Nunavut Planning Commission Conformity Determination (February 2008)
 - d. Cameco Corporation Project Description (February 2008)
 - e. Cameco Corporation Wildlife Monitoring and Mitigation Plan (December 2007)
- 2. The Proponent shall maintain a copy of the Screening Decision issued by the NIRB at the site of operation at all times.
- 3. The Proponent shall forward copies of all permits required for this project to the NIRB prior to the commencement of the project.
- 4. The NIRB shall be notified of any changes in operating plans or conditions associated with this project prior to any such change.
- 5. The Proponent shall operate the project in accordance with all applicable Acts, Regulations and Guidelines.
- 6. The Proponent shall submit an annual report with copies provided to the NIRB, INAC, the Kivalliq Inuit Association (KIA) and the Government of Nunavut, Department of Environment (GN-DOE) by January 31 each year that the project is in operation. The report must contain, but not be limited to, the following information:
 - a. A summary of activities undertaken for the year, including local hires and initiatives;
 - b. A work plan for the following year, including any progressive reclamation work undertaken;
 - c. A discussion regarding the effects to human health from uranium exploration activities;
 - d. A discussion regarding the steps taken (including any baseline work conducted) by the Proponent to thoroughly identify, analyze and manage the environmental and cumulative effects from the project activities, particularly with respect to barren ground caribou;
 - e. A discussion on how and with whom the company has tried to work with (i.e. government agencies, other companies etc.) in the project area to combine and develop wildlife and environmental monitoring programs to gain a better understanding of how exploration impacts the area as a whole.

- f. Specific to the Wildlife Monitoring and Mitigation Plan:
 - all monitoring results should include species, location (i.e., latitude and longitude), number of animals, description of the animal activity (prior to encounter and their response to human interaction), description of gender and age (young present?) of animal if possible;
 - observations and location of denning, calving areas, caribou crossing, raptor nests;
 - timing of critical life history events observed such as calving, mating, denning, nesting;
 - all potential impacts to wildlife from project;
 - all actions/mitigation taken;
 - an analysis of the effectiveness of mitigation measures for wildlife; and
 - any anticipated changes to the monitoring program(s);
- g. A summary of community consultations undertaken, including issues and concerns, discussions and advice offered to the company and follow-up actions required to resolve any concerns expressed about the project proposal.
- h. Site photos;
- i. Efforts made to achieve compliance with the Canadian Wide Standards for Dioxins and Furans, and the Canadian Wide Standards for Mercury; and
- j. A summary of how the Proponent has complied with NIRB conditions contained within this Screening Decision, and the conditions associated with all authorizations for the project proposal.

Wildlife

- 6. The Proponent shall adhere to all mitigation measures and monitoring commitments as outlined in their Wildlife Monitoring and Mitigation Plan (Appendix D). Furthermore, the proponent shall update its Wildlife Monitoring and Mitigation Plan to include any NIRB conditions contained within this Screening Decision. The proponent shall also forward any subsequent direction provided by the Parties, such as the GN-DOE (Mitch Campbell) and/or the KIA regarding the Wildlife Monitoring and Mitigation Plan to NIRB.
- 7. The Proponent shall abide by all DIAND Caribou Protection Measures (CPM), in addition to all caribou protection terms and conditions recommended by the NIRB. In the case where the CPM and the NIRB's recommended terms and conditions conflict, the NIRB expects that the proponent will adhere to the NIRB's recommended terms and conditions for the protection of caribou and all wildlife.
- 8. The proponent shall employ a fully independent wildlife monitor to determine when caribou cows and calves are in the area of operation.
- 9. The Proponent shall, between May and August, prior to conducting any significant operational activities (i.e. drilling, moving drill rigs, conducting airborne geophysical surveys etc.), undertake a high altitude aerial reconnaissance (minimum altitude of 610 metres (m)) with the assistance of the independent wildlife monitor to determine if any migrating caribou, caribou cows and calves, herds of musk oxen with calves are present within a twenty (20) kilometre (km) radius of the camp, drill sites, geophysical survey grids, or other activity. If wildlife are observed the Proponent shall suspend the exploration activity or re-locate to another area until the animals are a distance of 10km or more from the area.

- 10. During spring and fall migration of caribou, the Proponent shall not block or cause any diversion to caribou migration, and shall cease activities likely to interfere with migration such as airborne geophysics surveys, drilling or movement of equipment or personnel until such time as the caribou have passed.
- 11. During the period of May 15 to July 15 if caribou are observed calving in the area, or there are caribou with calves present the proponent should suspend all operations, particularly drilling, blasting, over flights by aircraft of less than 610 m above ground, and the use of snowmobiles and ATV's (All terrain vehicles) outside the immediate vicinity of camp.
- 12. During all other time periods, the proponent shall monitor for wildlife presence near their operations and if monitoring indicates caribou presence within two (2) km of project activities, the Proponent shall cease drilling operations, blasting, airborne geophysical surveys and the operation of ground, air or water based mobile equipment until caribou are at least two (2) km from the project activity location.
- 13. The Proponent must ensure all aircraft pilots avoid the Beverly caribou calving ground (northwest of the project area) and all Designated Crossings north of the airstrip and adjacent to the project area.
- 14. The Proponent shall not conduct any low-level airborne geophysical surveys or drilling activities within one (1) km of either side of the Thelon Heritage River.
- 15. The Proponent shall not between May 15 and September 1 construct any camp, cache any fuel, conduct blasting or drilling operations, operate ground, air or water based mobile equipment, including airborne geophysics surveys, within ten (10) km of any Designated [caribou] Crossing as outlined on the Caribou Protection Map.
- 16. If the Proponent is exploring near the Thelon Heritage River system and caribou are observed crossing the Thelon River outside of the Designated [caribou] Crossings, the Proponent shall immediately cease activities until monitoring results indicate that caribou are 10km from the area.
- 17. The Proponent shall be prohibited from allowing aircraft take-offs and landings when groups of caribou are within two (2) km of the airstrip or helipad, except during emergency circumstances.
- 18. The Proponent shall restrict aircraft/helicopter activity related to the project to a minimum altitude of 610m above ground level unless there is a specific requirement for low-level flying, which does not disturb wildlife.
- 19. The proponent shall submit at the end of each month, a daily logbook of caribou reconnaissance to the Government of Nunavut Department of Environment, detailing when and how the caribou protection measures have been implemented.
- 20. The Proponent shall not disturb nesting raptors (particularly during the period from April 15 to September 01), keeping at least 1.5 km away from known nests when in transit by aircraft and avoiding close approaches while on foot.
- 21. The proponent shall take extra precautions to avoid all disturbances to nests during the early part of the nesting cycle (avoid nests from late May through to mid July).

- 22. The Proponent shall treat all nest sites with equal precaution, regardless of the response of the bird. It is especially important not to disturb raptor nests during conditions of poor weather (rain, snow or high winds).
- 23. The Proponent shall avoid any and all activity within 100 m of a raptor nest site during the latter part of the nesting stage (August 10 to August 20 for peregrine falcons in this region).
- 24. The Proponent must avoid concentrations of nesting or molting waterfowl by aircraft/helicopter at all times.
- 25. The Proponent shall ensure that aircraft maintain a vertical distance of 1000 m and a horizontal distance of 1500 m from any observed groups (colonies) of migratory birds.
- 26. The Proponent shall ensure that there is no hunting or fishing by employees of the company or any hired contractors unless the proper Nunavut authorizations have been obtained.
- 27. The Proponent is advised that the operation is in an area where carnivores such as foxes, wolves, wolverine and bears may be encountered and could result in injury or death to either the animal or humans. Therefore all possible efforts to avoid human-wildlife encounters must be made, including proper food handling, storage and garbage disposal procedures. Additionally all staff should be fully aware and trained in human bear/wolf/fox/wolverine encounter and avoidance plans. If the proponent experiences any interactions with carnivores they are advised to contact the local conservation officer.
- 28. The Proponent and all employees should follow procedures outlined in the "Safety in Bear Country Manual", and should contact the regional biologist indicated below for information and advice on measures which should be taken to minimize the possibility of bear-people conflicts.

Ecosystems Biologist (Environmental Assessment)
Hillary Robinson (867) 934-2176, hrobinson@nunavutwildlife.ca
GN-DOE Manager, Wildlife
Dan Shewchuck, (867) 857-2828, dshewchuck@gov.nu.ca
Biologist, Kivalliq Region
Mitch Campbell, (867) 857-2828, mcampbell@gov.nu.ca

Waste Disposal and Air Quality

- 29. The Proponent shall incinerate all combustible and food wastes daily and shall store the ash in such a way that it is inaccessible to wildlife at all times.
- 30. The Proponent shall apply appropriate technologies to ensure the complete combustion of wastes. The use of a dual chamber, forced-air incinerator is recommended. In addition, the proponent is encouraged to implement a comprehensive waste management strategy (especially waste segregation) to reduce and control the volumes of waste produced, transported and disposed of.
- 31. The Proponent shall ensure that the disposal of combustible camp wastes comply with the *Canadian Wide Standards for Dioxins and Furans*, and the *Canadian Wide Standards for Mercury*. Wastewood treated with preservatives such as creosote, pentachlorophenol or heavy metal solution should not be

burned. Additionally plastics, electrical wire, asbestos and building demolition wastes (except clean wood) are wastes likely to produce dioxins and furans and should be excluded from incineration.

- 32. The Proponent shall not burn or incinerate hazardous wastes.
- 33. The Proponent shall ensure that all hazardous material is managed, removed from site and disposed in accordance with the *Environmental Protection Act (EPA)* and the Nunavut Hazardous Waste Disposal Manual.
- 34. The Proponent shall ensure that no waste oil will be incinerated on site. All waste oil will be transported off site and disposed of at an approved facility. A waste manifest must accompany the shipment of all waste oil and the proponent must register with the DOE. Contact Robert Eno at reno@gov.nu.ca or (867) 975-7748 to obtain a manifest if hazardous waste is generated during project activities.

Fuel Storage / Spill Contingency Plan

- 35. The Proponent shall update their Spill Contingency Plan prior to the start of operation to include:
 - a. The proponent's 24 hour point of contact for the persons activating the spill contingency including name, job, title, phone number.
 - b. The correct Environment Canada 24 hour on call Duty Officer contact number should be changed to (867) 766-3737.
 - c. The correct Government of Nunavut Department of Environment contact numbers:
 - i. General Reception (867) 975-7700
 - ii. Manager of Pollution Control (867)975-7748
 - d. To include overland transport precautions:
 - i. Speed on winter roads should not exceed 30km/hr for fully loaded vehicle and 50km/hr for empty vehicles
 - ii. Trucks should carry at least 10 square metres of polyethylene material (for lining a trench or depression), a spark proof shovel and oil absorbent blankets and squares
 - iii. Trucks should carry reliable radio and / or satellite phone communication
 - iv. Trucks should carry sufficient response equipment for the safe removal of fuel from and overturned truck (such as hatch cone covers, hoses etc.)
 - v. How the proponent is prepared to deal with spills resulting from a vehicle collision in a timely and efficient manner.
 - e. Procedures for registering and tracking the movement of hazardous waste via a Waste Manifest. A Waste Manifest must accompany all movements and all parties must register with Government of Nunavut Department of Environment by contacting Robert Eno at (867) 975-7748 or reno@gov.nu.ca
 - f. Updated NWT-NU Spill Report Form (http://www.gov.nu.ca/env/)
- 36. The Proponent shall inspect and document the condition of all large fuel caches (in excess of 20 drums) on weekly a basis.
- 37. The Proponent shall locate all fuel and other hazardous materials a minimum of thirty (30) metres away from the high water mark of any water body and in such a manner as to prevent their release into the environment.
- 38. The proponent shall ensure the main fuel cache at camp is placed within an Insta-berm.

- 39. The proponent shall use secondary containment or a surface liner (drip pans, fold-a-tanks, etc) at all refueling spots.
- 40. The Proponent shall ensure that appropriate spill kits are located at every fuel cache and drill site and that the drilling staff trained to respond in the event of a spill.
- 41. The Proponent shall utilize the revised spill reporting form in case of spills, and any spill reporting is to be recorded electronically. This revised spill form, with instructions, can be obtained from the Spill Line or at (http://www.gov.nu.ca/env/)

Drilling and Disposal of Related Radioactive Substances

- 42. The *Canadian Environmental Protection Act* lists calcium chloride (CaCl) as a toxic substance. The Proponent shall therefore ensure that if CaCl is used as a drill additive, all sumps containing CaCl are properly constructed and located in such a manner to ensure that the contents will not enter any water body.
- 43. The Proponent shall ensure that all drill holes are sealed by cementing (grouting) the upper 30 meters of the bedrock or the entire depth of the holes; whichever is less. Drill holes that encounter uranium mineralization with a content greater than 1.0% over a length of one (1) metre with a metre-percent concentration greater than 5% should be sealed by cementing over the entire mineralization zone; this should be at least ten (10) metres above and below each mineralization zone.
- 44. The Proponent shall ensure that drill cuttings with a uranium concentration greater than 0.05% should be disposed of down the drill hole and the hole subsequently sealed.
- 45. The Proponent shall ensure that core storage shacks/tents are well ventilated and remain open when employees or contractors are working within. Core storage areas should be located at least 100 m from the high water mark of all water bodies. Gamma radiation levels of a long-term core storage area should not be greater than 1.0 μ Sv, and should never exceed 2.5 μ Sv. Instruments that measure radiation in counts per second should be converted to μ S.
- 46. The proponent is advised that if artesian flow is encountered, the drill holes be immediately plugged and permanently sealed.
- 47. Drill areas should be kept to a minimum and constructed to facilitate minimizing the environmental footprint of the project area. It also should be kept orderly and any garbage is to be removed daily from the area to an approved disposal site.

Physical Environment

48. The Proponent shall not move any equipment or vehicles unless the ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging. The Proponent shall suspend overland travel of equipment or vehicles if rutting occurs.

Abandonment and Restoration

- 49. The Proponent shall transport all waste oil and waste fuels from the site to an approved facility for disposal.
- 50. The Proponent shall remove and treat hydrocarbon contaminated soils on site or transport them to an approved disposal site.
- 51. The Proponent is required to ensure the camp-site is clean and tidy. Furthermore, upon abandonment of the project activities, the Proponent shall ensure that the entire project area is clean and tidy, and no remnants of past exploration activities are left within the project area. The area should be left in a state as near as possible to pre-exploration conditions.
- 52. The Proponent shall conduct final inspections of the entire site with the lead authorizing agency to ensure that all areas of the site have been reclaimed as much as possible to its previous condition. Soil samples and pictures before and after project would make this process easy on the proponent and leading agencies involved in determining the areas of concern.

Other

- 53. The Proponent shall adhere to conditions stated in attached Appendix C Archaeological and Palaeontological Resources Terms and Conditions for Land Use Permit Holders.
- 54. The proponent shall consult with community residents of the Kivalliq Region, conduct regular information meetings to ensure that residents are kept aware of the activities and progress of the project and its phases.

Other NIRB Concerns and Recommendations

In addition to the project-specific terms and conditions, the Board is recommending the following:

Due to the proximity of the project proposal to the Thelon Heritage River, Beverly Herd Calving Grounds and Designated [caribou] Crossings, as outlined on the DIAND Caribou Protection Map, and the fact that project activities will be taking place within the range of the Beverly and Ahiak caribou herds, the following are recommended:

- 1. As an overriding consideration, Indian and Northern Affairs Canada (INAC) impose strict mitigation measures, conditions and monitoring requirements pursuant to the Federal Land Use Permit, which require Cameco Corporation (the Proponent) to respect the sensitivities and importance of the area. These mitigation measures, conditions and monitoring requirements should be in regard to:
 - a. Location and Area
 - b. Time
 - c. Equipment
 - d. Methods and Techniques
 - e. Control or Prevention of Flooding, Erosion and Subsidence of Land
 - f. Use, Storage, Handling and Disposal of Chemical or Toxic Material
 - g. Wildlife and Fisheries Habitat
 - h. Objects and Places of Recreational, Scenic and Ecological Value
 - i. Petroleum Fuel Storage

j. Matters Not Consistent with the Regulations

INAC must ensure the conditions imposed reflect the activities associated with the activities.

- 2. INAC must consider the importance of conducting regular Land Use Inspections, pursuant to the authority of the Federal Land Use Permit, while the project is in operation. The Land Use Inspections should be focused on ensuring the Proponent is in compliance with the DIAND Caribou Protection Measures and the conditions imposed through the Federal Land Use Permit.
- 3. As the primary landowner, INAC should make all reasonable efforts to ensure that community of Baker Lake understands that this project activity will be occurring on or near lands used by community members.
- 4. INAC is advised that any activity related to this application (INAC Land Use Permit application N2008C0007) outside the original scope of the project proposal will be considered a new project and must be submitted to the NIRB for screening. This is particularly relevant if the Proponent expands the 2009 drilling program beyond what has been described in the project information provided to NIRB and INAC. Therefore, the NIRB recommends that any renewal requests for the project proposal should be forwarded to the NIRB for assessment in accordance with 12.4.3 of the Nunavut Land Claims Agreement.
- 5. The Kivalliq Inuit Association (KIA) impose strict mitigation measures and/or Environment Terms and Conditions pursuant to the Inuit Owned Lands License in regard to:
 - a. General Standards
 - b. Fuel and Chemical Storage
 - c. Campsites
 - d. Fisheries
 - e. Ground Disturbance
 - f. Wildlife
 - g. Any other conditions recommended by the appropriate Community Lands and Resource Committee (CLARC)
- 6. KIA is advised that any activity related to this application (KIA Inuit Owned Lands License KVL307C02) outside the original scope of the project proposal will be considered a new project and should be submitted to the NIRB for screening. This is particularly relevant if the Proponent expands the drilling program beyond what has been described in the project information provided to NIRB and KIA. Therefore, the NIRB recommends that any renewal requests for the project proposal should be forwarded to the NIRB for assessment in accordance with 12.4.3 of the Nunavut Land Claims Agreement.
- 7. The Government of Nunavut Department of Environment (GN-DOE) Conservation Officers should conduct random inspections of the project location during the months of May, June, July and August to ensure the Proponent is in compliance with the NIRB Terms and Conditions and the DIAND Caribou Protection Measures.
- 8. The GN-DOE should conduct on-going review of wildlife monitoring results submitted from the Proponent as required by the Wildlife Monitoring and Mitigation Plan. Following submission of the required annual report by January 31, 2009 to NIRB, INAC, the KIA and the GN-DOE, the GN-DOE should report to NIRB, INAC and the KIA its findings regarding the possible impact of the project on the Beverly and Ahiak caribou herds.

- 9. That the GN-DOE continue to conduct population surveys in 2008 and future years to obtain information on the status and health of the Beverly and Ahiak herds that can be used towards future impact assessment.
- 10. That the regulatory, territorial and federal government agencies in Nunavut should work together with industry to develop an action plan to identify and mitigate potential cumulative effects of human land use activities, including mineral exploration, on barren-ground caribou. This assessment of cumulative effects should occur at a regional scale (i.e., larger than individual project areas).

Regulatory Requirements

The Proponent is also advised that the following legislation may apply to the project:

- 1. The *Fisheries Act* (http://laws.justice.gc.ca/en/showtdm/cs/F-14///en) which has orders and regulations for the protection of fish, fish habitat and pollution prevention measures. For example according to the *Fisheries Act, Section 36(3)*, the deposition of deleterious substances of any type in water frequented by fish, or in any other place under any conditions where the deleterious substance, or any other deleterious substance that results from the deposit of the deleterious substance, may enter any such water is prohibited.
- 2. The Proponent shall ensure compliance with the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (http://www.canlii.org/ca/sta/n-28.8/whole.html) which permits the use of waters in Nunavut in accordance with the conditions of a licence, and has such regulations as "no person shall deposit or permit the deposit of waste (a) in waters in Nunavut; or (b) in any other place in Nunavut under conditions in which the waste, or any other waste that results from the deposit of that waste, may enter waters in Nunavut"
- 3. The *Migratory Birds Convention Act* and *Migratory Birds Regulations* which requires that no person disturb or destroy the nests or eggs of migratory birds, and that no person shall deposit or permit to be deposited oil, oil wastes or any other substance harmful to migratory birds in any waters or any area frequented by migratory birds (http://laws.justice.gc.ca/en/showtdm/cs/M-7.01)
- 4. The Species at Risk Act (httached in Appendix B is a list of Species at Risk in Nunavut. The Proponent should consult the Species at Risk Public Registry (http://www.sararegistry.gc.ca/) to identify any Species at Risk within the project location. Further, the Proponent shall develop monitoring plans for each relevant Species at Risk in accordance with any applicable status reports, recovery strategies, action plans, and management plans posted on the Species at Risk Public Registry and in consultation with the Government Organization with Primary Management Responsibility. Monitoring plans should record the locations and frequency of observing species of special concern and note any actions taken to avoid contact or cause disturbance to the species, its residence, or its critical habitat.
- 5. The Nunavut Act (http://laws.justice.gc.ca/en/showtdm/cs/N-28.6) which requires that no person alter or disturb any archaeological or palaeontological sites in Nunavut unless permission is first granted through the permitting process. If any archaeological or palaeontological sites are found they should remain undisturbed and their location should be reported to the Government of Nunavut Department

- of Culture, Language, Elders and Youth. The Proponent must comply with the proposed terms and conditions listed in the attached **Appendix C.**
- 6. The *Nunavut Wildlife Act* contains provisions to protect and conserve wildlife and wildlife habitat, including specific protection measures for wildlife habitat and species at risk.
- 7. The Navigable Waters Protection Act (NWPA) http://www.tc.gc.ca/marinesafety/oep/nwpp/menu.htm
 All proponents must deal with the Navigable Waters Protection Program under Transport Canada for any work(s) to be built or placed in, on, over, under, through, or across any navigable water. The proponent will need to submit formal applications to the NWPP in order to obtain NWPP's approval, promulgation, or exemption for each specific work. The proponent shall also inform the NWPP of any design, construction, or operational changes accordingly. If the proponent is uncertain of the NWPP's requirements as they pertain to an application for specific work, please refer to the NWPP Internet site or contact the NWPP office.
- 8. The Aeronautics Act http://www.tc.gc.ca/CivilAviation/Regserv/Affairs/cars/Part3/Subpart1.htm
 Transport Canada's Aviation Branch administers and supports the regulatory requirements under the Aeronautics Act. This legislation is concerned with the regulation and supervision of aeronautic matters such as aerodrome certification, pilots, aircraft, operations and safety. The Canadian Aviation Regulations are a component of the Aeronautics Act, which compile regulatory requirements to enhance safety within the Canadian aviation industry. Construction and operation of airstrips may require certification to Transport Canada requirements and standards based upon their classification. The following Internet link provides the necessary information concerning the requirements contained in CARs.
- 9. The *Transportation of Dangerous Goods Regulations*, *Transportation of Dangerous Goods Act* (http://www.tc.gc.ca/tdg/menu.htm), and the *Environmental Protection Act* (http://laws.justice.gc.ca/en/C-15.31/text.html) which present the requirements for the handling, storing, managing and transportation of dangerous goods, including hazardous wastes, fuel and contaminated material. The Proponent must ensure that proper shipping documents accompany all movements of dangerous goods. The Proponent must register with GN-DOE by contacting Robert Eno at 867-975-7748 or reno@gov.nu.ca.

The Proponent will also be advised that:

- 1. All releases of harmful substances are immediately reportable where the release:
 - a. Is near or into a water body;
 - b. Is near or into a designated sensitive environment or sensitive wildlife habitat;
 - c. Poses an imminent threat to human health or safety; or
 - d. Poses an imminent threat to a listed species at risk or its critical habitat

Validity of Land Claims Agreement

Section 2.12.2

Where there is any inconsistency or conflict between any federal, territorial and local government laws, and the Agreement, the Agreement shall prevail to the extent of the inconsistency or conflict.

Dated ____April 4, 2008__ at Sanikiluaq, NU.

Lucassie Arragutainaq, A/Chair

Appendix A Procedural History and Project Activities

Procedural History

On February 13, 2008 the Nunavut Impact Review Board (NIRB or Board) received Cameco Corporation's application for the Turqavik – Aberdeen Lake exploration project proposal from Indian and Northern Affairs Canada (INAC). On February 19, 2008 NIRB received a positive conformity determination from the Nunavut Planning Commission for this project. Additionally, on March 27, 2008 the NIRB received Cameco Corporation's extension and amendment application for access to Inuit Owned Land (licence KVL307C02 expiry June 15, 2008) from the Kivalliq Inuit Association. NIRB has assigned this project proposal file number 08EN015.

This application was distributed to the community of Baker Lake and to interested Federal and Territorial Agencies. NIRB requested that interested Parties review the application and provide NIRB with comments by March 17, 2008 regarding:

- Whether the project proposal is likely to arouse significant public concern; and if so, why;
- Whether the project proposal is likely to cause significant adverse eco-systemic and socioeconomic effects; and if so, why;
- Whether the project is of a type where the potential adverse effects are highly predictable and mitigable with known technology, (please provide any recommended mitigation measures); and
- Any matter of importance to the Party related to the project proposal.

On or before March 17, 2008 NIRB received comments from the following interested Parties (see Comments and Concerns):

- Transport Canada
- Government of Nunavut Department of Environment
- Beverly and Qamanirjuag Caribou Management Board
- Environment Canada

NIRB has previously screened other project activities associated with this property under NIRB File No. 06EN030 and NIRB File No. 07EN011 and given a 12.4.4 (a) decision on May 25, 2006 and May 04, 2007 respectively. In 2007 as noted in correspondence provided to NIRB (File No. 07EN011), the GN recommended a one-year Land Use Approval to be issued, subject to the findings of the 2007 GN/GNWT Population Surveys of the Beverly and Ahiak Caribou Herds.

All comments provided to NIRB regarding this project proposal can be viewed on NIRB's ftp-site, at the following location:

ftp://ftp.nirb.ca/SCREENINGS/COMPLETED%20SCREENINGS/2008 SCREENINGS/

Project Activities

Cameco intends to continue exploration activities for uranium on their properties including diamond drilling, prospecting, mapping, as well as ground and airborne geophysical surveys. All exploration activities are scheduled for June to September 2008 and March to September 2009.

The project is located on Crown and Inuit Owned Land in the Aberdeen Lake Area in the Kivalliq Region. The nearest community is Baker Lake, approximately 100km to the east. Their project area is on

both sides of the Thelon Heritage River and is south of the traditional caribou calving grounds of the Beverly Caribou Herd, and within the post-calving grounds and migratory path (including several caribou crossings) of the Beverly and Ahiak Caribou Herd.

The proposed major activities for the 2008 and 2009 programs involve:

- Use of existing, temporary (20 person) camp at Qamanaarjuk Lake (constructed in 2006)
- Diamond drilling:
 - o 2008 between 10 and 20 holes (3,000 6,000m) max. depth 500m
 - between June and September
 - 2009 locations will depend on results of 2008
 - between March and September
- Borehole cores sampling
- Geological mapping, prospecting, sampling and geophysical surveys (ground and airborne)
 - o Geophysics may include gravity, resistivity, electro-magnetic and magnetic surveys
- Fuel transport and temporary storage at drill sites
 - o transported overland in winter and cashed in portable berms, and by aircraft in summer
- Transportation (aircraft, snowmobiles, ATV)
 - o natural airstrip for tundra wheeled aircraft (some leveling required)
- Water Use
- Storage of Products, Chemicals and Hazardous Materials
- Production of Associated Waste

Appendix B SPECIES AT RISK IN NUNAVUT

This list includes species listed on one of the Schedules of SARA (*Species at Risk Act*) and under consideration for listing on Schedule 1 of SARA. These species have been designated as at risk by COSEWIC (Committee on the Status of Endangered Wildlife in Canada). This list may not include all species identified as at risk by the Territorial Government.

- Schedule 1 is the official legal list of Species at Risk for SARA. SARA applies to all species on Schedule 1. The term "listed" species refers to species on Schedule 1.
- Schedule 2 and 3 of SARA identify species that were designated at risk by the COSEWIC prior to October 1999 and must be reassessed using revised criteria before they can be considered for addition to Schedule 1.
- Some species identified at risk by COSEWIC are "pending" addition to Schedule 1 of SARA. These species are under consideration for addition to Schedule 1, subject to further consultation or assessment.

Schedules of SARA are amended on a regular basis so it is important to periodically check the SARA registry (www.sararegistry.gc.ca) to get the current status of a species.

Updated: January 3, 2007

	COSEWIC		Government Organization with Lead Management
Species at Risk	Designation	Schedule of SARA	Responsibility ¹
Eskimo Curlew	Endangered	Schedule 1	EC
Ivory Gull	Endangered ²	Schedule 1	EC
Peregrine Falcon (subspecies anatum)	Threatened	Schedule 1	Government of Nunavut
Ross's Gull	Threatened	Schedule 1	EC
Harlequin Duck (Eastern population)	Special Concern	Schedule 1	EC
Felt-leaf Willow	Special Concern	Schedule 1	Government of Nunavut
Peregrine Falcon (subspecies tundrius)	Special Concern	Schedule 3	Government of Nunavut
Short-eared Owl	Special Concern	Schedule 3	Government of Nunavut
Fourhorn Sculpin	Special Concern	Schedule 3	DFO
Peary Caribou	Endangered ³	Pending	Government of Nunavut
Beluga Whale (Eastern Hudson Bay population)	Endangered	Pending	DFO
Beluga Whale (Cumberland Sound population)	Threatened	Pending	DFO
Beluga Whale (Western Hudson Bay population)	Special Concern	Pending	DFO
Beluga Whale	Special Concern	Pending	DFO

(Eastern High Arctic – Baffin Bay population)			
Bowhead Whale	Threatened 4	Pending	DFO
(Hudson Bay-Foxe Basin population)			
Bowhead Whale (Davis Strait-Baffin Bay population)	Threatened ⁴	Pending	DFO
Porsild's Bryum	Threatened	Pending	Government of Nunavut
Atlantic Walrus	Special Concern	Pending	DFO
Narwhal	Special Concern	Pending	DFO
Rusty Blackbird	Special Concern	Pending	Government of Nunavut
Barren-ground Caribou (Dolphin and Union population)	Special Concern ³	Pending	Government of Nunavut
Grizzly Bear	Special Concern	Pending	Government of Nunavut
Polar Bear	Special Concern	Pending	Government of Nunavut
Wolverine (Western Population)	Special Concern	Pending	Government of Nunavut

¹ Environment Canada has a national role to play in the conservation and recovery of Species at Risk in Canada, as well as responsibility for management of birds described in the Migratory Birds Convention Act (MBCA). Day-to-day management of terrestrial species not covered in the MBCA is the responsibility of the Territorial Government. Populations that exist in National Parks are also managed under the authority of the Parks Canada Agency. EC = Environment Canada, DFO = Department of Fisheries and Oceans

² Designated as Endangered by COSEWIC in April 2006 and it is expected that the category of concern in SARA will also be changed from Special Concern to Endangered.

³ Peary Caribou was split into three separate populations in 1991: Banks Island (Endangered), High Arctic (Endangered) and Low Arctic (Threatened) populations. The Low Arctic population also included the Barren-ground Caribou - Dolphin and Union population. In May 2004 all three population designations were de-activated, and the Peary Caribou, Rangifer tarandus pearyi, was assessed separately from the Barren-ground Caribou (Dolphin and Union population), Rangifer tarandus groenlandicus. The subspecies pearyi is composed of a portion of the former "Low Arctic population" and all of the former "High Arctic" and "Banks Island" populations, and it was designated Endangered in May 2004. Although SARA lists Peary Caribou on Schedule 2 as three separate populations, the most current designation is the COSEWIC designation of the subspecies pearyi as Endangered.

⁴ The "Eastern and Western Arctic populations" of Bowhead Whale were given a single designation of Endangered in April 1980 by COSEWIC. These were split into two populations to allow separate designations in April 1986. The Eastern population was not re-evaluated in April 1986, but retained the Endangered status of the original "Eastern and Western Arctic populations". The Eastern Arctic population was further split into two populations (Hudson Bay-Foxe Basin population and Davis Strait-Baffin Bay population) in May 2005, and both these populations were designated as Threatened. Both these populations are under consideration for addition to Schedule 1. Although SARA lists the Eastern Arctic population as Endangered (Schedule 2), the most current designation is the COSEWIC designations of the Hudson Bay-Foxe Basin and Davis Strait-Baffin Bay populations as Threatened.

Appendix C

Archaeological and Palaeontological Resources Terms and Conditions for Land Use Permit Holders



BACKGROUND: Archaeology

As stated in Article 33 of the Nunavut Land Claims Agreement:

The archaeological record of the Inuit of Nunavut is a record of Inuit use and occupancy of lands and resources through time. The evidence associated with their use and occupancy represents a cultural, historical and ethnographic heritage of Inuit society and, as such, Government recognizes that Inuit have a special relationship with such evidence, which shall be expressed in terms of special rights and responsibilities. [33.2.1]

The archaeological record of Nunavut is of spiritual, cultural, religious and educational importance to Inuit. Accordingly, the identification, protection and conservation of archaeological sites and specimens and the interpretation of the archaeological record is of primary importance to Inuit and their involvement is both desirable and necessary. [33.2.2]

In recognition of the cultural, spiritual and religious importance of certain areas in Nunavut to Inuit, Inuit have special rights and interests in these areas as defined by Article 33 of the Nunavut Land Claims Agreement. [33.2.5]

BACKGROUND: Palaeontology

Under the Nunavut Act1, the federal Government can make regulations for the protection, care and preservation of palaeontological sites and specimens in Nunavut. Under the *Nunavut Archaeological and Palaeontological Sites Regulations*2, it is illegal to alter or disturb any palaeontological site in Nunavut unless permission is first granted through the permitting process.

Definitions

As defined in the *Nunavut Archaeological and Palaeontological Sites Regulations*, the following definitions apply:

1 s. 51(1)

2 P.C. 2001-1111 14 June, 2001

"archaeological site" means a place where an archaeological artifact is found.

"archaeological artifact" means any tangible evidence of human activity that is more than 50 years old and in respect of which an unbroken chain of possession or regular pattern of usage cannot be demonstrated, and includes a Denesuline archaeological specimen referred to in section 40.4.9 of the Nunavut Land Claims Agreement.

"palaeontological site" means a site where a fossil is found.

"fossil" includes:

- (a) natural casts
- (b) preserved tracks, coprolites and plant remains; and
- (c) the preserved shells and exoskeletons of invertebrates and the eggs, teeth and bones of vertebrates.

Terms and Conditions

- 1) The permittee shall not operate any vehicle over a known or suspected archaeological or palaeontological site.
- 2) The permittee shall not remove, disturb, or displace any archaeological artifact or site, or any fossil or palaeontological site.
- 3) The permittee shall immediately contact the Department of Culture, Language, Elders and Youth (867) 934-2046 or (867) 975-5500 or 1 (866) 934-2035 should an archaeological site or specimen, or a palaeontological site or fossil be encountered or disturbed by any land use activity.
- 4) The permittee shall immediately cease any activity that disturbs an archaeological or palaeontological site encountered during the course of a land use operation, until permitted to proceed with the authorization of the Department of Culture, Language, Elders and Youth, Government of Nunavut.
- 5) The permittee shall follow the direction of the Department of Culture, Language, Elders and Youth and DIAND in restoring disturbed archaeological or palaeontological sites to an acceptable condition.
- 6) The permittee shall provide all information requested by the Department of Culture, Language, Elders and Youth concerning all archaeological sites or artifacts and all palaeontological sites and fossils encountered in the course of any land use activity.
- 7) The permittee shall make best efforts to ensure that all persons working under authority of the permit are aware of these conditions concerning archaeological sites and artifacts, and palaeontological sites and fossils.
- 8) The permittee shall avoid the known archaeological and/or palaeontological sites listed in Attachment 1.
- 9) The permittee shall have an archaeologist or palaeontologist perform the following functions, as required by the Department of Culture, Language, Elders and Youth:

- a. survey
- b. inventory and documentation of the archaeological or palaeontological resources of the land use area
- c. assessment of potential for damage to archaeological or palaeontological sites
- d. mitigation
- e. marking boundaries of archaeological or palaeontological sites
- f. site restoration

The Department of Culture, Language, Elders and Youth shall authorize by way of a Nunavut Archaeologist Permit or a Nunavut Palaeontologist Permit, all procedures subsumed under the above operations.

P.O. Box 1360 Cambridge Bay, NU X0B 0C0 Phone: (867) 983-4600 Fax: (867) 983-2594

Appendix D Cameco Corporation - Turqavik – Aberdeen Project Wildlife Monitoring and Mitigation Plan (December 2007)

See Attached Appendix D