NIRB File No.: 09MN003

March 12, 2010

To: Kiggavik Distribution List

Sent via: *Email*

Re: <u>Commencement of the NIRB's Part 5 Review of AREVA Resources Canada Inc's "Kiggavik" Project</u>

Dear Parties:

On November 25, 2008, the Nunavut Impact Review Board (NIRB or Board) received AREVA Resources Canada Inc's (AREVA or the Proponent) uranium mining development proposal for the "Kiggavik" project. On January 16, 2009 the NIRB received a positive conformity determination from the Nunavut Planning Commission (NPC) for this project in relation to the Keewatin Regional Land Use Plan (KRLUP). The correspondence also indicated that, with respect to sections 3.5 and 3.6 of the KRLUP which require review of all issues relevant to uranium exploration and mining by the NPC, as well as approval of the people of the region, the NPC has concluded that these requirements have been met.

The NIRB screened the Kiggavik project in accordance with Part 4 of Article 12 of the Nunavut Land Claims Agreement (NLCA), and on March 13, 2009 issued a screening decision report to the Minister of Indian and Northern Affairs Canada (the Minister), recommending a review under Part 5 or 6 of Article 12 of the NLCA.

On March 2, 2010 the NIRB received the enclosed correspondence from the Minister, referring the Kiggavik project to the Board for a review of the ecosystemic and socio-economic impacts under Part 5 of Article 12 of the NLCA.

Pursuant to Section 12.5.1 of the NLCA, the Minister highlighted the following specific issues of concern for NIRB to consider during its review of the Kiggavik project:

- The use of new technology for mine design, and operation and tailings containment. Specifically, the Minister stated that: *"It is essential that these aspects of the Proposal are thoroughly assessed in order to ensure impact predictions to surface and ground water are accurate."*
- The importance of a thorough cumulative effects assessment. The Minister stressed that: "*Cumulative impacts of particular concern include those to caribou, caribou migration and calving grounds, and related socio-economic impacts to Baker Lake and other impacted communities.*"

- Scoping the proposal according to the Board's jurisdictional authority.
- Ensuring the review is conducted in a manner which enables and supports meaningful participation of the public and facilitates thorough public consultation. In particular the Minister highlighted that: *"The very technical nature of some of the issues that have raised concern may warrant additional community information sessions."*

PARTICIPANT FUNDING

To ensure that affected parties are able to participate fully in the review of the Kiggavik project, the Minister has indicated that participant funding (intervenor funding) will be made available. The Minister has also requested the Board's advice regarding the identification of intervenors whose contribution is important for the review, and the level of funding required to facilitate their participation.

The enclosed public notice regarding the availability of participant funding was published in newspapers with Nunavut-wide circulation on March 12, 2010. This funding will facilitate public participation at various stages in the NIRB Part 5 review process (see **Appendix A**), as described in the NIRB's *Participant Funding Guide* for this review. Applications for funding must be prepared in accordance with the NIRB's *Participant Funding Guide* and must be received by the NIRB no later than **April 12, 2010**.

Following the receipt of applications for participant funding, the NIRB will forward all eligible submissions to an independent funding review committee for consideration. The funding review committee will be established by Indian and Northern Affairs Canada (INAC) to review participant funding applications and recommend allocation of funds according to specified eligibility criteria. The committee's recommendations will be forwarded to the Minister, who will determine final allocations. Finally, the NIRB will inform all applicants of the funding decision within three days of that decision being communicated by the Minister.

For more information on participant funding, for an application form, or for a copy of the *NIRB Participant Funding Guide*, please visit the NIRB's ftp site at http://ftp.nirb.ca/REVIEWS/CURRENT_REVIEWS/.

NIRB SCOPING PROCESS

Pursuant to Article 12, Part 5 of the NLCA, the NIRB's review process will:

- review the ecosystemic and socio-economic impacts of the proposed Project;
- gauge and define the extent the impacts will have on regions and communities; and
- determine, on the basis of its review, whether the project proposal should proceed, and if so, under what terms and conditions, and then report its determination to the Minister.

The first step in the NIRB's Part 5 review process is to **scope** the project proposal and the potential impacts associated with developing the Kiggavik Project. Scoping is a process that pinpoints significant issues requiring study and analysis. This process aims to identify those components of the biophysical and/or socio-economic environment that may be impacted by the project and/or for which there is public concern. The NIRB will solicit input from the Proponent

and interested Parties, including Territorial and Federal Government departments, Regional Inuit Associations, and members of the public, in order to determine:

- Which project components and activities will be included in the review;
- The temporal (time-related) and spatial (physical) boundaries of the project;
- The issues and concerns to be considered in the review, including but not limited to the issues highlighted in the Minister's March 2, 2010 referral; and,
- Any other requirements for the assessment of the project.

The NIRB has developed a *Draft* Scope for the assessment of the Kiggavik project for review by interested Parties (see **Appendix B**). The NIRB will not finalize the Scope of the project proposal until the funding review committee has had an opportunity to review the applications from individuals or agencies requesting participant funding. Following the Minister's acceptance of the funding review committee's recommendations and subsequent awarding of funding to successful applicants, the NIRB will circulate a *Revised Draft* Scope of the project proposal and *Draft* Environmental Impact Statement (EIS) Guidelines to this distribution list, offering an opportunity for comments.

The NIRB scoping process requires the development of a public participation and awareness program which engages the public and encourages effective participation throughout the review process. As an initial step for this review, the NIRB will be conducting public scoping sessions in communities potentially affected by the project in order to facilitate meaningful consultation and ensure effective public participation in the review process.

The objectives of these public scoping sessions will be to:

- Inform community members about the proposed project under review;
- Inform community members about the NIRB Part 5 review process and encourage effective participation; and,
- Identify Valued Ecosystem Components (VECs) and Valued Socio-Economic Components (VSECs) that should be addressed by the Proponent's EIS.

Upon finalization of the necessary logistical arrangements, the Board will issue further correspondence formally announcing details on these upcoming community meetings.

EIS GUIDELINE DEVELOPMENT

Pursuant to Section 12.5.2 of the NLCA, the NIRB will issue project specific guidelines to the Proponent for the preparation of an Environmental Impact Statement (EIS Guidelines) once the scoping process has been completed. An EIS is a detailed document prepared by the Proponent in accordance with the guidelines issued by the NIRB which identifies, predicts, evaluates, and communicates information about the ecosystemic and socio-economic impacts of a project proposal. An EIS also provides for the identification and development of mitigation measures – measures designed to control, reduce, or eliminate potentially adverse impacts of an activity or project.

Findings of the scoping process will figure prominently in the creation of EIS Guidelines. Once completed, the NIRB will circulate *Draft* EIS Guidelines to this distribution list, offering an opportunity for interested parties to provide input to the Board. A second round of public commenting on the *Draft* EIS Guidelines and a Guidelines Development Workshop are also anticipated. The NIRB will integrate those recommendations it considers appropriate, finalize the guidelines, and issue them to the Proponent for the preparation of a *Draft* EIS.

Section 12.5.2 of the NLCA contains a list of information to be included, where appropriate, in an EIS (NIRB's 10 Minimum EIS Requirements) and grants the NIRB the authority to add, "*any other matters that NIRB considers relevant*." For more information on the preparation of environmental impact statements and a list of requirements that Proponents must comply with, please see the NIRB's *Guide 7 – The Preparation of Environmental Impact Statements* (available at http://ftp.nirb.ca/GUIDES/).

All information pertaining to the Kiggavik project proposal can be accessed on the NIRB's ftp site at the following link:

http://ftp.nirb.ca/REVIEWS/CURRENT_REVIEWS/09MN003-AREVA_KIGGAVIK/.

Again, the NIRB requests that interested individuals and groups seeking participant funding to provide their applications by **April 12, 2010**. Please forward all participant funding requests to the NIRB at info@nirb.ca or via fax to **(867) 983-2594**.

If you have any questions or comments regarding the NIRB's Part 5 Review of the project, please contact the NIRB's Technical Advisor, Sophia Granchinho, at sgranchinho@nirb.ca or by phone at (867) 983-4607.

Sincerely,

Ryan Barry
Director, Technical Services
Nunavut Impact Review Board

cc: The Honourable Chuck Strahl, Minister of Indian and Northern Affairs Canada
Frederic Guerin, AREVA Resources Canada
Diane Martens, AREVA Resources Canada

Attachments: Appendix A: Anticipated Timeline for the Part 5 Review of the Kiggavik Project
Appendix B: *Draft* Scope List for the NIRB's Assessment of the AREVA Kiggavik Project

Enclosures (2): Minister of Indian and Northern Affairs Canada's Decision Re: *AREVA Resources Canada Inc's Kiggavik Project* (March 2, 2010)
NIRB's Public Notice Re: *Public Participation in the Environmental Review of the Kiggavik Uranium Mine Project* (March 12, 2010)

APPENDIX A
Anticipated Timeline for the Part 5 Review of the Kiggavik project

Note: Timelines may change based on project-specific circumstances and subject to NIRB's discretion.

March 2, 2010	Minister's decision received by the NIRB Part 5 Review commences, notice issued to distribution list
March 12, 2010	Notice of Participant Funding released *Draft* Scope of project proposal released Procedures for scoping and guideline development outlined
April 1, 2010	**(*Anticipated Date*)** Schedule for community scoping sessions announced
April 12, 2010	Participant Funding applications forwarded to funding review committee
April 26, 2010	**(*Anticipated Date*)** Community scoping sessions begin
May 31, 2010	**(*Anticipated Date*)** NIRB Community scoping session summary report released

The NIRB will not finalize the *Draft* Scope of the project proposal until the funding review committee has had opportunity to review the applications from individuals or agencies requesting participant funding. Following the Minister's acceptance of the funding review committee's recommendations and subsequent awarding of participant funding to successful applicants, the NIRB will release a *Revised Draft* Scope of the project proposal and *Draft* EIS Guidelines for comment.

Phase 1: Scoping and Guideline Development

Day 1	*Revised Draft* Scope of project proposal released for comment *Draft* EIS Guidelines released for comment
Day 30	Comments received from Parties on *Revised Draft* Scope of project proposal and *Draft* EIS Guidelines
Day 45	Final Scope of project proposal released *Revised* EIS Guidelines released for comment
Day 60	Comments received from Parties on *Revised* EIS Guidelines
Day 70	EIS Guidelines development workshop held
Day 90	EIS Guidelines issued to Proponent

The Proponent will develop a *Draft* EIS with the issued EIS Guidelines based on its own timetable, making this section of the review completely Proponent-driven.

Phase 2: Draft EIS, Technical Meeting and PHC

Day 1	*Draft* EIS submission received by NIRB NIRB conformity review of submission with EIS Guidelines
Day 15	Conformity decision issued by NIRB *Draft* EIS accepted by NIRB Parties given 30 days to submit Information Requests (IRs)
Day 30	Schedule for community information sessions announced
Day 45	Deadline for Parties to submit IRs to NIRB
Day 48	NIRB forwards approved IRs to Proponent
The time required for submission of an adequate IR response is primarily Proponent-driven. Under some circumstances, the NIRB may exercise its discretion and establish an acceptable timeline for the Proponent's response.	
Day 49	Proponent submits IR response package Technical review of *Draft* EIS Tentative dates for Technical Meeting and Preliminary Hearing Conference (PHC) announced
Day 109	NIRB receives technical review reports from Parties
Day 119	Proponent submits response to technical review reports
Day 124	Technical meeting is held.
Day 129	Preliminary Hearing Conference (PHC) is held
Day 159	Board issues PHC decision on administrative issues and direction for submission of *Final* EIS

The Proponent will develop a *Final* EIS with the issued PHC compliance report based on its own timetable, making this section of the review Proponent-driven. NIRB's PHC compliance review may result in a negative decision, where extensive revisions to the submission and a second compliance review are required.

Phase 3: Final EIS and Final Hearing

Day 1	Final EIS submission received PHC compliance review begins Tentative date(s) and location(s) for Final Hearing announced
Day 15	NIRB issues PHC compliance determination Parties receive *Final* EIS and technical review begins
Day 75	NIRB receives final written submissions from Parties
Day 90	Final Hearing is held
Day 125	NIRB's Final Hearing Report submitted to the Minister

This *Draft* Scope for the Part 5 Review of the Kiggavik project is based on the requirements of Section 12.5.2 of the Nunavut Land Claims Agreement (NLCA), the Nunavut Impact Review Board's (NIRB or Board) 10 Minimum EIS Requirements, and the project proposal submitted by AREVA Resources Canada Inc. (AREVA) on November 25, 2008.

The process of "scoping" intends to identify the scope of the project (i.e., the physical works and activities proposed), and the factors to be assessed (i.e., ecosystemic and socio-economic factors and environments to be considered in assessing the effects of the project) in the context of spatial and temporal scales at various project stages including preconstruction, construction, operation, modification/maintenance, decommissioning, abandonment or other undertakings. The NIRB will consult with the public and interested parties to identify Valued Ecosystem Components (VECs) and Valued Socio-Economic Components (VSECs) that should be addressed by the Proponent's Environmental Impact Statement.

1) Nunavut Land Claims Agreement – Section 12.5.2, items a – j:

a) project description, including the purpose and need for the project;

b) anticipated ecosystemic and socio-economic impacts of the project;

c) anticipated effects of the environment on the project;

d) steps which the proponent proposes to take including any contingency plans, to avoid and mitigate adverse impacts;

e) steps which the proponent proposes to take to optimize benefits of the project, with specific consideration being given to expressed community and regional preferences as to benefits;

f) steps which the proponent proposes to compensate interests adversely affected by the project;

g) the monitoring program that the proponent proposes to establish with respect to ecosystemic and socio-economic impacts;

h) the interests in lands and waters which the proponent has secured, or seeks to secure;

i) options for implementing the proposal; and

j) any other matters that NIRB considers relevant.

2) The NIRB's Minimum EIS Requirements

1) Statement of Consultation Principles and Practices

2) Definition of Project

3) Statement of Project's Purpose

4) Anticipated Impacts Analysis

5) Cumulative Effects Analysis (CEA)

6) Significant Effects Analysis
7) Project Alternatives
8) Sustainability Analysis
9) Monitoring and Post-Project Analysis (PPA)
10) Transboundary Effects Analysis
11) Any other matters deemed necessary

3) Kiggavik Project Components

The following is a description of the physical works and activities or undertakings that constitute the Kiggavik project proposal, as filed with the NIRB on November 25, 2008 by the Proponent. In NIRB's judgement, these components have the potential to:

- cause significant adverse effects on the ecosystem, wildlife, or Inuit harvesting activities;
- cause significant adverse socio-economic effects on northerners;
- cause significant public concern; and
- involve technological innovations for which the effects are unknown.

Project Proposal Summary

The Kiggavik project is a proposed uranium ore mining and milling operation located in the Kivalliq Region, approximately 80 kilometres (km) west of Baker Lake. According to the project proposal, the Kiggavik project is estimated to contain geological resources representing approximately 52,000 tonnes uranium (U) with a grade of approximately 0.23% U.

The project includes three main geographical areas incorporated in the Kiggavik project: the Kiggavik site, the Sissons site and the Baker Lake dock site. The main base of operations will be the Kiggavik site, which will include open pit mining, power generation, ore processing, warehousing, administration and personnel accommodation. The proposed activities at Sissons include open pit mining, underground mining and the ancillary activities required to support these mining operations. The dock at Baker Lake will serve as a transfer and storage facility for materials and supplies en route to Kiggavik.

The project involves the development of five individual mines, three open pit mines (East Zone, Center Zone) at Kiggavik and both an open pit mine (Andrew Lake) and an underground mine (End Grid) at Sissons. Reagents, fuel and supplies would be barged to a storage facility near Baker Lake and transported to Kiggavik via truck on a 90-100 km access road. Uranium ore concentrate, commonly referred to as yellowcake, will be transported by air or may be transported by barge during the open water season to southern Canada.

The anticipated operational mine life is approximately 17 years, with a 3 year pre-operational construction phase and a post-operational decommissioning period of approximately 5 years.

However, the potential development of additional deposits in the project area could extend the operating life of the project.

Project Components

a. Kiggavik Mine Site

Activities: The main base of the operations will be the Kiggavik site, which will include open pit mining, power generation, ore processing, warehousing, administration and personnel accommodations. Mining and ore stockpiling at the Kiggavik site would begin as early as possibly in the project schedule, while the mill start-up will be delayed, until the first of the two tailings facilities is available. The three proposed open pits at Kiggavik will be mined using conventional drilling and blasting techniques, with ore and waste rock removal using mechanical excavators and trucks. Special waste will be segregated and temporarily stored during operation in a stockpile adjacent to the clean waste. During decommissioning, the special waste will be co-disposed with the tailings in the mined-out pits. Ore mined at Kiggavik and Sissons will be processed at the Kiggavik site and the uranium product extracted, commonly referred to as yellowcake, will be transported via truck to the Baker Lake port, barge to Churchill, and then rail to southern Canada and/or transported via air to southern Canada.

Facilities (during operation): Three open pit mines (East Zone, Center Zone, Main Zone); explosives storage; waste rock and special waste management facilities; ore storage pads; haul roads; mill facility; water treatment facilities; water storage facility; tailings management facilities (in-pit disposal concept); hazardous material handling and storage facility; power house and fuel storage; aerodrome; warehouse; main maintenance shop; main administration complex; dry facilities and accommodation complex.

b. Sissons Mine Site

Activities: Two mines are planned for the Sissons site; Andrew Lake and End Grid. It is proposed to dewater Andrew Lake to access the proposed Andrew Lake pit. Ore mined at Sissons will be hauled to the Kiggavik mill for processing. Mine wastes and special wastes will be managed at the Sissons site.

Facilities (during operation): Open pit mine (Andrew Lake); underground mine (End Grid); satellite explosives storage; waste rock and special waste management facilities; water treatment plant; ore pad; backfill plant; fuel storage; satellite maintenance shop; satellite administration offices and dry facilities.

c. Baker Lake Dock Site

Activities: Location of dock sites and storage facility is dependent on the road option selected for access to Kiggavik. Wharf will allow for the docking of two barges at a suitable location from the shore. Fuel will be offloaded to the tank farm via a pipeline constructed on the dock. The Baker Lake Facility will be used to store fuel, containers, supplies and other materials that are brought in for the Kiggavik site. In addition, yellowcake will be transported to the Baker Lake Facility from the Kiggavik site and

stored at the Facility until shipped with returning barges. Supplies and fuel will be shipped to the Kiggavik site on on-going bases.

Facilities (during operation): Wharf; fuel storage/tank farm; storage facility, warehouse and laydown area; and satellite administration and community liaison office.

d. Road Transportation connecting Baker Lake to the Kiggavik area

A 90 – 100 km access road from Baker Lake to the Kiggavik area is proposed for the transportation of supplies and yellowcake. Several options for this access road are being considered, including all-weather road options and a winter road option. Currently, there is a winter trail that connects Baker Lake to the Kiggavik area; however construction and maintenance of a more substantial access road will be required.

i) Winter Road Option

Activities: The proposed winter access route will pass over approximately 50% ice while the remainder is overland. The road will be re-constructed every year by clearing the overland portions and flooding the over-ice portions. Trucks will travel in convoys for safety at a maximum speed of 30 km/h.

Facilities: Heated refuge stations along route.

ii) All-Weather Road Options

Activities: The project proposal includes two all-weather route options, north route and a south route. The proposed north all-weather route follows alongside the existing ATV trial north of Baker Lake and crosses the Thelon River. Two possible methods of crossing the river have been identified: a bridge option and a cable-ferry/ice bridge option. The bridge option will allow the road to remain open year round.

The proposed south all-weather route begins on the shore of Baker Lake and continues to the west to Kiggavik. The south all-weather route avoids major river crossings and reduce disturbance to the community of Baker Lake.

Regardless of the route option, the all-weather road will be based on a fill-only approach, such that a fill base of suitable thickness is placed to protect the permafrost.

Facilities: Borrow sources along the route(s); heated refuge stations; 435 metre long bridge with 5 spans (north route only) with four piers in the river.

e. Mobilization and Shipping

Activities: The required fuel, reagents and supplies for the Kiggavik project will be brought in via marine shipping or via rail. Supplies will be brought via an ocean-going vessel to Churchill (or Chesterfield Inlet) or via rail. From Churchill (or Chesterfield Inlet), the supplies will be shipped to Baker Lake via barge or ferry and from Baker Lake

to Kiggavik via truck using the winter road or all-weather road. In addition, the proponent is proposing that yellowcake be trucked to the Baker Lake Facility, barged to Churchill (or Chesterfield Inlet), then rail to southern Canada, in addition to being shipped via air to southern Canada.

Marine transportation will have two primary segments that need to be considered. The first is the marine shipment via ocean-going vessel through Hudson Strait and Hudson Bay to Churchill (or Chesterfield Inlet). The second is marine shipment via tug-barge from Churchill (or Chesterfield Inlet) to Baker Lake.

Facilities: Existing facilities at Churchill (or Chesterfield Inlet); tug – barge fleet; Baker Lake dock and storage facility (see above); and access road from Baker Lake to Kiggavik (see above).

f. Air Transportation

Activities: A 2000 metre airstrip is proposed for the Kiggavik site to facilitate the transportation of employees, perishable goods and yellowcake. The airstrip will have capacity to land Hercules aircraft (or similar) and Boeing 737-200 type planes. Part of the workforce required will be brought in on a 7 to 14 day schedule from the Kivalliq region communities. Approximately 5 trips per week will be required to ship out the yellowcake containers.

Facilities: Single storey shelter/air terminal; airstrip; all associated navigational aids and infrastructure.

g. Site Haul Road between Kiggavik and Sissons

Activities: An approximately 20 kilometre haul road will be constructed between the Sissons deposit and the Kiggavik site. Ore haulage trucks with a maximum gross weight of 250 tonnes will be using this road to haul ore from Sissons to Kiggavik site.

4) NIRB Part 5 Review Scoping List

The assessment of the potential for ecosystemic and socio-economic impacts caused by the project components and activities in the above section and extending through all the project phases (pre-construction staging, construction, operation, modification, decommissioning, reclamation and abandonment) should refer to the environmental and socio-economic factors listed below. The scoping of potential impacts caused by the project components, activities and undertakings to environmental and socio-economic factors shall take into account the appropriate temporal boundaries and spatial boundaries.

a. Meteorology and Climate (including climate change)
b. Air Quality
c. Noise and Vibration
d. Geology and Geomorphology
e. Hydrology (including water quantity) **and hydrogeology**
f. Surface and Groundwater Quality

g. **Ground Stability and Permafrost**
h. **Terrestrial Environment (**including landforms and soils)
i. **Vegetation**
j. **Freshwater Aquatic Environment including Surface Water and Sediment Quality**
k. **Freshwater Biota (**including fish as defined in the *Fisheries Act*) **and Habitat**
l. **Marine Environment including Marine Water and Sediment Quality**
m. **Marine Wildlife, Organisms, Fish and Habitat**
n. **Terrestrial Wildlife and Wildlife Habitat**
o. **Birds**
p. **Socio-Economic Factors**
q. **Human Health and Well-being**
r. **Cultural, Archaeological and Palaeontological Resources**
s. **Traditional Knowledge**
t. **Cumulative Effects** (include impacts to caribou, caribou migration and calving grounds, and related socio-economic impacts to Baker Lake and other communities)
u. **Risk Management** (including emergency response, hazardous materials management, and accidents and malfunctions)
v. **Project Alternatives**
w. **Transboundary Effects**
x. **Monitoring Programs** (environmental and socio-economic components) **and Post-project Analysis (PPA)**
y. **Technological innovations previously untested in the Arctic** including new technology for mine design, and operation and tailings containment