Kiggavik Draft EIS

Information Requests

Responses to

Nunavummiut Makitagunarningit

January 31, 2013

IR Number: Makita 1, 2, 3

Request Preamble:

Makita-1: Knowledge Gaps in Baseline Data (throughout DEIS)

Preamble: It is important for reviewers to understand what gaps in available information were encountered during the analyses carried out for AREVA's impact statement.

Makita-2*:* Incorporation of Inuit Qaujimajatuqangit into Methodology, Baseline Data and Analyses (throughout DEIS)

Preamble: The discussion of how AREVA incorporated Inuit Qaujimajatuqangit into methodology and analyses in each volume is quite general and not specific. This makes it impossible to assess whether or AREVA has engaged with Inuit Qaujimajatuqangit in a meaningful way.

Makita-3: Significance Thresholds (throughout DEIS)

Preamble: The overall significance threshold adopted for impacts on caribou and muskox (Volume 6, page 13-4) is based on "professional judgement". More information is required to determine whether or not the significance thresholds selected are appropriate.

Request:

Makita-1 request:

For each volume of the DEIS, provide a comprehensive discussion of the most substantial knowledge gaps encountered during the analyses carried out. Include in this summary an explanation of how each knowledge gap was dealt with in the various analyses contained in the DEIS.

Makita-2 request:

1) For each volume of the DEIS, provide a comprehensive discussion of the way Inuit Qaujimajatuqangit was used to develop study methodology and as data in analyses.
2) Include discussions of contradictions within IQ, how AREVA reconciled these contradictions, and how AREVA determined which "statements" were used in analyses and which "statements" were not.
3) Also, provide a discussion of contradictions between Inuit Qaujimajatuqangit and scientific sources, as well as the manner in which these contradictions were reconciled.
4) Provide a discussion of any contradictions between Inuit Qaujimajatuqangit and government policy, industry conventions and professional judgement relied upon in the development of study methodologies.

Makita-3 request:

1) Provide a discussion of the broad significance thresholds utilized in each volume of the DEIS. Indicate how each significance threshold was decided upon.
2) In cases where professional judgement was relied upon, indicate why professional judgement was relied upon instead of other sources (engagement, Inuit Qaujimajatuqangit, scientific precedent, precedent set in other impact assessments in Canada).
3) 3) Indicate what factors were considered in making each professional judgement.

AREVA Response:

Makita-1: NIRB correspondence to AREVA on July 13, 2012 Appendix B - Information Requests Identified by the NIRB as Not Requiring a Response

NIRB Rationale: Does not meet criteria for IRs - more appropriately addressed through technical review comments.

Makita requests a comprehensive compilation of the discussion of knowledge gaps (**Makita-1**), Inuit Qaujimajatuqangit (**Makita-2**) and significance thresholds (**Makita-3**) from each volume of the DEIS, and throughout the DEIS. To facilitate technical review of the information requested, AREVA has outlined below where the information is found within the DEIS, provided a table to assist navigation through the DEIS, and provided some illustrative examples of the discussion of these topics. Comments are also provided regarding both the use of professional judgment, and the conservative assessment approach. If reviewers identify or are in possession of additional information on knowledge gaps, IQ, or scientific considerations relevant to the assessment, this information is welcomed as technical comments for consideration in the assessment.

DEIS Document Structure

The DEIS is structured by discipline and/or environmental component. The structure was developed to meet NIRB requirements (NIRB Guidelines Section 8.0 Project Environment and Impact Assessment) and facilitate review of the DEIS by regulatory discipline specialists and the public. DEIS Tier 1, Volume 1, Main Document presents an overall summary and key DEIS findings in 150 pages with an accompanying 25 page popular summary.

The DEIS Tier 1, Volume 1, Main Document provides an overview of the assessment approach, engagement and IQ efforts, and results relative to these IRs, as follows:

- Section 4 Assessment Approach, Section 4.2.4 Assessment Boundaries, describes technical boundaries considered in the assessment (**Makita-1**);
- Section 6 Inuit Qaujimajatuqangit, Section 6.2 Use and Influence of IQ in Project Design and Environmental Review, outlines how each discipline used IQ information in their assessments (**Makita-2**); and
- Section 4 Assessment Approach, Section 4.2.6 Standards or Thresholds for Determining Significance, provides information used to determine if an environmental effect was rated as significant or not significant (**Makita-3**).

DEIS Tier 2 documents describe in detail:

- the Kiggavik Project in Volume 2;
- a comprehensive report on Public Engagement and IQ in Volume 3;
- six discipline specific detailed assessments in Volumes 4 to 9 (atmospheric, aquatic, terrestrial, marine, human health, socio-economic); and,

- accidents and malfunctions in Volume 10.

DEIS Tier 3 reports support the Tier 2 assessments and include baseline studies and detailed technical analyses.

The six Tier 2 discipline-specific assessments present a full description of the assessment methodology and the scope of the assessment prior to summarizing the existing baseline environment. Engagement and IQ are presented comprehensively in the DEIS Tier 2, Volume 3 Public Engagement and IQ, but discipline specific information is presented again in each assessment. Table Makita 1,2,3 (New) on the following page provides a roadmap for the assessment methodology items identified in Makita IRs 1 to 3 that are discussed in the discipline-specific DEIS Tier 2, Volumes 4 to 9.

Table Makita 1,2,3 (New) Roadmap to Technical Boundaries, IQ and Significance Thresholds in Kiggavik DEIS

	Atmospheric (Volume 4 Part A)	Atmospheric (Volume 4 Part B)	Aquatic (Volume 5)	Terrestrial Terrain, Soil and Vegetation (Volume 6)	Terrestrial Wildlife (Volume 6)	Marine (Volume 7)	Human Health (Volume 8)	Socio-Economics (Volume 9 Part 1)	Socio-Economics (Volume 9 Part 2)
Technical Boundaries (Makita-1)	Section 4.7 (Page 4-23)	Section 4.7 (Page 47)	Section 10.1.3 (Page 10-8) and Section 11.1.3 (Page 11-4) [1]	Sections 5.7.1 and 5.7.2 (Page 5-17) [1]	Section 11.7. (Page 11-16)	Sections 6.2.2.1 (Page 6-7), 6.2.2.3.4 (Page 6-14) and 7.2.1.3 (Page 7-5) [1]	Section 6.3.6 (Page 6-13) and Section 7.2.6 (Page 7-6)	Appendix 9A-Section 4.1.5.2 (Page 4-13)	Section 5 (Pages 5-1 to 5-3)[1]
Use and Influence of IQ (Makita-2)	Sections 4.10 and 4.11 (pages 4-29 to 4-30)	Sections 4.10 and 4.11 (page 54)	Section 4.1.1 and 4.1.2 (Page 4-2 to 4-4)	Sections 5.1 to 5.3 (Page 5-1 to 5-4)	Sections11.1 to 11.3 (Page 11-1 to 11-3)	Sections 4.9 and 4.10 (Page 4-20)	Section 5.1 (Page 5-1)	Section 4.1, 4.7 and 4.8 (Pages 4-1, 4-24, and 4-25)	Section 4.1 and 4.9 (Pages 4-1 and 4-8)
Significance Standards and Thresholds (Makita-3)	Section 4.8.1 Table 4.8-4 (Page 4-27)	Section 4.8.1 Table 4.8-3 (Page 50)	Sections 6.1, 7.1.3, 7.1.4, 8.1.3, 8.1.4, 9.1.3 and 9.1.4, 10.1.4 and 10.1.5, 11.4.4, 11.1.5	Table 7.1-3 for Terrain and Section 7.1.4; Table 8.1-3; Table 9.1-3	Standards and thresholds specific for each key indicator are described in respective assessment Sections 11 through 16	Section 6.1.2 for marine mammals (Page 6-3) and 7.1.2 for marine fish (Page 7-3)	Sections 5.3.6 and 6.3.8 for worker exposure and Section 7.2.8 for member of the public	Section 4.6 (Page 4-20)	Sections 4.8 (Page 4-7) and 6.1.5 (Page 6-3)

[1] Technical boundaries are discussed within effects assessment sections and not specifically under Administrative and Technical Boundaries headings

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Although technical boundaries were not specifically identified for DEIS Tier 2, Volumes 5, 6 (Terrain, Soil, and Vegetation), 7, or 9 (Part 2 – Heritage Resources), data limitations were acknowledged within the assessment discussion sections noted. No limitations were identified that would affect confidence in assessment results. If additional limitations are identified through the technical review that should be included or adjusted to maintain conservatism, these will be addressed in the FEIS.

The implementation of the assessment approach and document structure was flexible to accommodate each discipline and the number of components within a discipline.

Illustrative Examples of Discussion of Knowledge Gaps, Inuit Qaujimajatuqangit, and Significance Thresholds

To facilitate further review, a number of key examples of knowledge gaps, IQ integration and significance thresholds are provided below.

Examples of Knowledge Gaps (Makita-1):

Socio-Economic Environment:

AREVA anticipates the Kiggavik Project will move into its construction phase in 2017, and into its operations phase in 2021. As discussed in the DEIS Tier 2, Volume 9, Socio-Economics and Community, Appendix 9A, Section 4.1.5.2, these temporal boundaries are considered to impose knowledge gaps for the socio-economic baseline and assessment. This is because the baseline conditions in the Kivalliq are necessarily based on available data – in some cases the most recent available quantitative data are from 2006. Section 4.1.5.2 provides some discussion on how these, and other data limitations, were addressed. This will be included under the section heading Administrative and Technical Boundaries in the FEIS.

Marine Environment:

Limited scientific research is available on the occurrence and abundance of marine invertebrates in Hudson Bay and much about their ecology, abundance and distribution is still unknown (DEIS Tier 3, Volume 7, Marine Environment, Appendix 7A, Section 6.1.1). This scientific gap on the invertebrates in Hudson Bay did not influence the confidence of the assessment since the potential effects from routine shipping are expected to have limited direct interaction with invertebrates.

Terrestrial Environment - Terrain:

No federal or territorial regulations or guidelines exist regarding the effect of changes to terrain. As such, previous experiences from other projects in Nunavut and other parts of the Canadian Arctic that have undergone the environmental assessment and review process were referred to, as well as professional judgment to determine threshold values for determining the significance of project effects on terrain. Some of the other projects reviewed included the Ekati Diamond

Mine, Jericho Diamond Mine, as well as the Doris North Project and the Izok Lake/High Lake Project. Further details can be found in DEIS Tier 2, Volume 6, Terrestrial Environment, Section 5.4.1 and Section 7.1.4.

Atmospheric Volume – Air Quality:

Project-specific emission factors for the Kiggavik Project are not known; emissions factors from reference documents and experience at other mine projects were used. The methods used to estimate emissions factors are discussed in DEIS Tier 2, Volume 4, Atmospheric Environment, Part A, Air Quality, Section 6.1.1. Conservatively, to estimate the impacts of air emissions, the assessment has used an artificial maximum emission scenario whereby the highest emission rates from all mining activities have been assessed assuming all mining operations occur concurrently.

Examples of IQ incorporation (Makita-2):

With regard to IR Makita-2, IQ data have been integrated throughout the DEIS, and information is presented as a whole in DEIS Tier 2, Volume 3, Public Engagement and Inuit Qaujimajatuqangit, Part 2, IQ. IQ was gathered on a variety of specific topics including: wildlife and harvesting, bird and egg harvesting, fishing, plants, camps, trails, burial sites and cultural sites. The information gathered during IQ interviews was integrated in each volume of the DEIS. Certain disciplines had very little IQ to integrate (e.g. noise and vibration) and other disciplines had more information available (e.g. wildlife, socio-economics, heritage resources). The Tier 2 assessments discuss concerns raised during engagement and the influence of IQ on the assessment.

Please refer to response to IR CNSC 30 which includes a new figure describing how IQ and engagement data is incorporated into different phases of the environmental assessment process. Examples of IQ incorporation include the following.

Socio-Economic Environment:

DEIS, Tier 2, Volume 9, Socio-Economics and Community, Part 1, Socio-Economic Environment, Section 4.7 and DEIS Tier 3, Volume 9, Socio-Economics and Community, Appendix 9A, Section 4.1.4 notes that socio-economics is inherently consultative and depends on input of the Inuit of Kivalliq to develop and refine primary data collection program; provide baseline content; guide the selection of VSECs; determine emphasis in discussions of the potential for project effects; and incorporate suggestions into AREVA's socio-economic management. There are numerous examples throughout the DEIS Tier 2, Volume 9, Part 1, Socio-Economic Environment and Appendix 9A on the use of IQ to describe baseline conditions and to support conclusions of the impact assessment, taking into consideration socio-economic management measures. Diversity of views was expected during IQ and socio-economic data collection and engagement activities because individuals have different life experiences, values and opinions. These differences were acknowledged and captured in the socio-economic assessment.

Heritage Resources:

Information obtained from the IQ and traditional land use interviews assisted in devising field methods for the heritage resources baseline studies (DEIS Tier 3, Volume 9, Socio-Economics and Community, Part 2, Heritage Resources, Appendix 9B). As a result of these interviews, the location of graves, spiritual sites and archaeology sites in the general region were reported by Elders.

Marine Environment:

The application and related appendices present available information compiled from IQ, baseline surveys and the scientific literature that was used to support the Marine Environment effects assessment (DEIS Tier 2, Volume 7, Marine Environment).

Terrestrial Environment:

IQ was used to determine baseline conditions for a variety of wildlife species (DEIS Tier 3, Volume 6, Terrestrial Environment, Appendix 6C). IQ regarding ice crossings was considered in the assessment of caribou movement (DEIS Tier 2, Volume 6, Terrestrial Environment, Section 13.2.3.5). If certain topics related to terrestrial wildlife were not addressed by IQ (e.g. zones of influence showing reductions in caribou use), scientific information was used. Additional IQ data related to wildlife is presented in the DEIS Tier 2, Volume 3, Public Engagement and Inuit Qaujimajatuqangit, Part 2, IQ.

Related IQ Information Requests:

The response to IR BLHTO 32 shows the variability in IQ data gathered. The variability is presented and the more conservative information is used for assessments.

> *"In order to present variation in comments, the 10 comments presented in Box 9.2-1 include five expressing specific concerns about the effects of noise and traffic on caribou and marine animals, four say that distribution patterns change or have changed but no cause is attributed, and one comment suggests that changes in distribution are natural."*

The response to BLHTO 33 also shows variability in IQ data considered in the assessment and the response to BLHTO 5 shows IQ heterogeneity and how it is considered:

"Heterogeneity is expected during IQ interviews and engagement activities in general, since individuals have varying and diverse life experiences, values and opinions. The between-individual variety encountered in IQ interviews is documented in the DEIS Tier 2, Volume 3, Public Engagement and IQ, Part 2, IQ and DEIS Tier 3, Volume 3, Public Engagement and IQ, Part 2, IQ, Appendix 3B IQ Documentation. These differences were acknowledged and captured in the DEIS; overall, common themes and concerns gleaned from IQ interviews were carried forward into the assessments. Some examples include:

- *incorporation of comments from Hunter Harvest Surveys (DEIS Tier 3, Volume 6, Terrestrial Environment, Appendix 6C, Section 5.1.5.6),*
- *inclusion of Meadowbank in project inclusion list for cumulative effects assessment (DEIS Tier 1, Volume 1, Main Document, Appendix 1B), and*
- *discussion of Meadowbank experience in the caribou effects assessment (DEIS Tier 2, Volume 6, Terrestrial Environment, Section 13.2.1.6, Section 12.3.2.3.2, Section 13.3.2.4, and Section 13.3.3.4).”*

Examples of significance thresholds (Makita-3):

Examples of the determination of significance thresholds are provided below. Please see the response to IR AANDC 15 to see how significance used in the DEIS was presented to communities for feedback.

Socio-Economic Environment:

As outlined in DEIS Tier 2, Volume 9, Socio-Economics and Community, Part 1, Socio-Economic Environment, Section 4.6, significance of socio-economic effects tends to be qualitative with a strong element of professional judgment due to challenges in quantification, thresholds, unpredictability, and effectiveness of socio-economic management measures and expectations of both negative and positive residual impacts. The section notes determination of significance depends on ‘perceptions and values of affected people and their leadership’, in addition to data interpretation and lessons learned from other experiences. Professional judgment reaches qualitative conclusions taking into account all of baseline data (qualitative and quantitative, IQ, engagement results and comparable experiences (in northern Canada), as discussed in Volume 9, Part1, Sections 4.6 to 4.9.

Terrestrial Environment:

Assessing potential changes in caribou and muskox health (DEIS Tier 2, Volume 6, Terrestrial Environment) depends on estimating changes in environmental components such as vegetation, soil and water which are derived from atmospheric (DEIS Tier 2, Volume 4, Atmospheric Environment) and aquatic environment (DEIS Tier 2, Volume 5, Aquatic Environment) assessments; these sections describe the sources of contaminants of potential concern and the assumptions used in the assessment. The ecological risk assessment process (DEIS Tier 3, Volume 8, Human Health, Appendix 8A) includes thresholds which were developed using a range of toxicity benchmarks based on scientific research, along with conservative estimates of uptake and time spent in the assessment area, considered in conjunction with maximum operating scenarios. The adoption of the ecological risk assessment process has been used by AREVA at its operating and decommissioned uranium mining and milling facilities in Saskatchewan and has continued to evolve and improve over the past 20 years; pathways analysis and ecological risk assessment as an assessment tool, is refined over time based on measured environmental data, detailed studies to refine model parameters and is subject to continual improvement based on feedback from regulatory agencies.

Use of Professional Judgment

The preamble for IR Makita-3 references text in DEIS Tier 2, Volume 6, Terrestrial Environment, Section 13.1. More detailed information is provided in Section 13.2, including assumptions and uncertainties considered as part of professional judgment such as IQ, scientific data, ecological theory, and experience from other northern mine sites. The preamble also suggests that professional judgment was relied upon, "…*instead…"* of other sources (engagement, Inuit Qaujimajatuqangit, scientific precedent, precedent set in other impact assessments in Canada). More correctly, professional judgment includes, rather than excludes, all of these components; professional judgment is not used in isolation of the body of relevant information, it is informed by it. Furthermore, experience guides professional judgment. For example, the environmental consultant who authored the wildlife section (referred to in the preamble to IR Makita-2) is a Certified Wildlife Biologist (CWB) and a Registered Professional Biologist (P. Biol.) with over 15 year of technical experience, including five years as a biologist for the Government of Nunavut.

The NIRB guidelines (NIRB Guidelines for the Preparation of an Environmental Impact Statement for AREVA Resources Canada Inc.'s Kiggavik Project (NIRB File No 09MN003), May 2011) describe the inclusion of professional judgment and expert opinion in various stages of the environmental assessment process:

- Glossary definition of valued ecosystem components (VECs): "Those aspects of the environment considered to be of vital importance to a particular region or community including resources that are…professionally recognized as important…"
- Section 7.5.2 Temporal Boundaries: "…give rationale and justification for boundaries chosen, including a description of any consultation with…technical experts…"
- Section 7.9 Impact Prediction: "…explain and justify methods for impact prediction, including…expert opinion…"
- Section 7.13 Indicators and Criteria: "…identify the indicators and/or criteria selected for assessing the potential impacts of the Project…the Proponent shall describe the role played by consultation with…technical experts…"
- Section 7.14 Significance determination: "Impact significance is based on comparing the predicted state of the environment with and without the Project and expressing a judgment as to the importance of the changes identified."

Conservative Assessment Approach

To ensure that the assessment of effects accounts for potential variances in the final design, AREVA used conservative assumptions. The purpose of the assessment basis is to clearly articulate the bounding case of the project, based on conservative assumptions, which encompasses the potential environmental and socio-economic effects of the project and includes the consideration of those components for which more than one option has been outlined.

With respect to knowledge gaps (IR Makita-1) and significance thresholds (IR Makita-3), the assessment basis described in DEIS Tier 2, Volume 2, Project Description and Assessment

Basis, Section 20 is designed to over-estimate the potential effects of the Project. Significance thresholds are typically based on values which would overestimate potential effects, such as those presented in the DEIS Tier 3, Volume 8, Human Health, Appendix 8A. AREVA is confident that a conservative approach has been applied where knowledge gaps or uncertainties in significance thresholds exist; however, the NIRB guidelines (NIRB Guidelines Section 2.4 Precautionary Principle and Section 9.7 Follow-Up and Adaptive Management Plans) and Kiggavik DEIS recognize the role of a conservative assessment basis combined with a follow-up monitoring and adaptive management process in order to account for uncertainties in the assessment. The DEIS provides AREVA's judgment as to the importance of the possible environmental and socio-economic changes resulting from the Project; AREVA will consider any alternative views on the information provided in the DEIS during the technical comment stage of the environmental assessment review process.

It is also important to note that, as outlined in the NIRB guidelines for preparation of the Kiggavik DEIS, follow-up and adaptive management plans provide a mechanism to balance possible uncertainties in EA predictions (NIRB Guidelines, Section 9.7 Follow-Up and Adaptive Management Plans). Follow-up monitoring is used to verify accuracy of EA predictions and determine effectiveness of mitigation measures, particularly in areas where scientific uncertainty exists. Adaptive management process under the environmental management system is implemented if results of follow-up monitoring necessitate new mitigation or compensation measures. This is addressed in the EA process which is part of AREVA's integrated environmental protection approach (DEIS Tier 1, Volume 1, Main Document, Figure 3.1-1 and Tier 2, Project Description and Assessment Basis, Section 17, Figure 17.1-1). During facility operation, compliance monitoring maintains operational performance standards and follow-up programs are tailored to verify the accuracy of EA predictions and to determine the effectiveness of mitigation practices. This integrated approach allows a conservative, or precautionary approach to decision making when uncertainties are higher, as may be the case prior to the start of the operation. The integrated environmental protection approach features an iterative, systematic process for continual improvement of practices, which builds on the outcomes of EA predictions and on operational monitoring and follow-up programs to provide a robust defense against the development of significant adverse effects.

IR Number: Makita 4

Request Preamble:

Analysis of Project Need and Purpose (Section 1.3.1) Volume 1

Request:

What is the source for the lifecycle greenhouse gas emissions for nuclear energy that are reported?

AREVA Response:

World Nuclear Association, "Comparison of Lifecycle Greenhouse Gas Emissions of Various Electricity Generation Sources" WNA Report, July 2011. http://www.world-nuclear.org/uploadedFiles/org/reference/pdf/comparison_of_lifecycle.pdf

IR Number: Makita 5

Request Preamble:

Dust Mitigation and Tailings Management (Section 4) Volume 2

Preamble: Dust was identified as a key concern. Tailings management is a key area of concern, with backfilling pits offered as the management response.

Request:

1) Provide a description of dust mitigation measures and effectiveness. (Section 4.2.1)
2) What will be done with tailings until there is a pit available? (Section 4.2.4)

AREVA Response:

1 – Please see the response to IR GN-DOE 39.

2 – The mill will not be operated until a tailings facility is available. Any sludge generated from the WTP will be stored in a temporary holding facility, and re-processed through the tailings neutralization circuit when the TMF is operation

IR Number: Makita 6

Request Preamble:

Long-term Monitoring (Section 13.5.3) Volume 2

Preamble: Concerns over community participation and communication in decommissioning and reclamation phases were raised in connection with closure of Cluff Lake mine, and underscore need for targeted community involvement mechanisms.

Request:

1) How will the results of the ongoing monitoring program be communicated to the community?
2) Will there be ongoing local community involvement and benefit during this phase?

AREVA Response:

The Community Involvement Plan, (DEIS Tier 3, Volume 3, Public Engagement and Inuit Qaujimajatuqangit, Part 1, Public Engagement, Appendix 3C) Section 6.1.3, pages 6-3 and 6-4 outlines the engagement activities that will take place during the decommissioning phase of the Project. The monitoring committees will continue to operate along with the ongoing annual reporting and community updates will continue.

Some possible benefits to communities during the decommissioning phase may be the subject of IIBA negotiations with the KIA.A summary of the IIBA is anticipated to be provided in the FEIS.

IR Number: Makita 7

Request Preamble:

Post-custodial Transfer (Section 13.6) Volume 2

To: AREVA, NIRB

Preamble: Institutional control is a desirable end-point for care and management of abandoned sites, but must equally include local information and benefit components. It is important that as sites are returned to public, the remaining liabilities, risks and responsibilities are clearly understood.

Request:

1) What are the features of the Institutional Control Program?
2) What level of public input into the design and implementation of this program will there be?

AREVA Response:

DEIS Tier 2, Volume 2, Project Description and Assessment Basis, Section 13.6 states:

"It is anticipated that an Institutional Control Program (ICP) will be formally established. It is anticipated that site activities will continue to be regulated through decommissioning licences until AREVA has advanced the Long Term Monitoring Plan to the point where application can be made to enter the site into the ICP. It is anticipated that this will be done in stages.

AREVA's intent is to continue monitoring, and analyzing data, until an area of the site is shown to be eligible to be released from the decommissioning, reclamation and transition phase."
The specifics of the Institutional Control Program will need to be established with the land owners and regulators. The model in use for uranium mines in Canada today is "Institutional Control Program, Post Closure Management of Decommissioned Mine/Mill Properties Located on Crown Land in Saskatchewan, Ministry of Energy and Resources, December 2009."

AREVA looks to the ICP in Saskatchewan as a guide to the features that could apply to Kiggavik in Nunavut. These features include: successful completion of an environmental assessment including public input monitoring and maintenance requirements, successful completion of decommission and reclamation eligible to be released by regulators for Institutional Control, eligible to be released from surface leases Institutional Control monitoring and maintenance funds are in place.

IR Number: Makita 8

Request Preamble:

Engagement Methods (Volume 9, Part 1; Appendix 9A)

Preamble: More information is required regarding the methods and methodology of the engagement efforts that AREVA draws upon heavily in this volume.

Request:

1) Provide clear attribution for every quote provided in the document, including name, age, gender, date, location, context, and language (if in Inuktitut, provide the name of the interpreter). If individual names are not available due to confidentiality, provide a number or pseudonym (i.e., Informant 65, Baker Lake), so that quotes by the same person can be identified as such, and provide the remaining information (i.e., date, location, etc.).
2) Specify the date, location, number of participants, duration, and facilitators/hosts for every "data collection event" informing the report.
3) Provide a demographic profile for each of the "focus groups" conducted (as listed in table 4.1-2), including number of participants. Also list repeats (i.e., people who participated in more than one event).
4) Identify the "three qualified social scientists, working with assistants and translators in each community and with enumerators recruited in Baker Lake to deliver the household survey questionnaires."
5) Provide copies of all the "Handwritten notes, maps, confidentiality agreements, original questionnaires and stipend receipt sheets [which] are held by Golder Associates Ltd. in Calgary." (appd. 9A)
6) AREVA indicates that the socioeconomic baseline was validated and reviewed by community (p. 4-25). Provide precise details of the review and validation process, including participants and their demographic profile.
7) Specify how AREVA "cleaned" the data informing the baseline study: "Also, some of the questions [of the questionnaire] depended on recall of a variety of events that took place over time and/or on people's impressions of what average patterns of life are. Such recall and impressions cannot be precisely accurate. This is somewhat mitigated by the large sample size and by cleaning the data." (Appd 9A, pg. 73)
8) The DEIS claims that a key principle in AREVA's socioeconomic management approach is that "IQ is solicited, documented and integrated into Project decision making." Describe how AREVA has integrated IQ into its decision-making so far.

AREVA Response:

Makita 8 (4,5) NIRB correspondence to AREVA on July 13, 2012 Appendix B - Information Requests Identified by the NIRB as Not Requiring a Response.

NIRB Rationale: NIRB does not require AREVA to produce any information in responding to the IR that it reasonably considers to be confidential or that raises a privacy concern.

1 – AREVA cannot provide attributions for statements made during focus groups discussions. Notes taken on these discussions do not include a record of who said what. Whereas numbers can be assigned to statements made during informant interviews, AREVA considers that would

compromise confidentiality – triangulation of statements by individuals could fairly easily lead to the identification of the individual interviewed. See response provided to IR BLHTO 4.

2 – The response to IR BLHTO 4 includes a list of socio-economic data collection events, by date and location. There were between three and nine participants in focus groups discussions, and an average of six. Overall, 50 percent of participants were women. Durations for focus groups discussions depended on the progress of the event, but in nearly all cases approximated two hours. There are no records of finish times. In every case, facilitators were two of Mitch Goodjohn, Linda Havers and Susan Ross.

For informant interviews, these were in almost all cases with a single individual although on occasion two people participated. Durations varied, again depending on progress, but in most cases approximated one hour. In almost every case, facilitators were two of Mitch Goodjohn, Linda Havers and Susan Ross although on occasion an exception was made.

For the household survey in Baker Lake, participation varied by household – in some cases more than a single individual participated in answering the survey questions. The survey took about one half hour to administer, although this again varied by household. The six enumerators were all Baker Lake residents.

3 – The response to IR BLHTO 4 provides information on who participated in each focus group (women, rotational workers, HTO members, etc.). Again, 50 percent were women overall, although this varied by group – focus group discussions with women obviously did not include men and rotational workers in Baker Lake included only one woman. With the exception of Baker Lake and Repulse Bay, HTO focus groups tended to be dominated by men. Participation of elders and of young adults was in each case overall 50 percent women, but gender distribution varied widely by community. People were not encouraged to participate in more than one focus group, however there were isolated exceptions as people could not be turned away.

4 – The research license in DEIS Tier 3, Volume 9, Socio-Economics and Community, Part 1, Socio-Economic Environment, Appendix 9A, Attachment A identifies the three social scientists – Mitch Goodjohn (Golder), Linda Havers (Golder) and Susan Ross (subcontractor to Golder).

5 – As noted in the response to IR BLHTO 4, AREVA is not able to provide transcripts or minutes for confidentiality reasons.

6 – Phone calls were made to hamlet governments over the last week of September 2011, advising them to expect electronic and hard copies of the socio-economic baseline to be included in the DEIS. These were forwarded to 29 representatives of hamlet governments and HTOs (including, depending on the community, mayors, SAOs, HTO chairs and HTO managers) in the seven Kivalliq communities on October 12, to review and comment on according to their processes.

Cover letters noted a deadline for receipt of comments of December 2 2011. The letter noted that this would not be the only opportunity for comments, given the NIRB process for review of environmental assessments, but that 'AREVA especially wants to make sure that this report does not contain information that hamlets are uncomfortable with as public information.' There were no requests for an extension of the deadline and no comments in response to the distribution of electronic and hard copies to communities before submission of the DEIS the third week of December (and there have been none at the time of this IR response submission).

AREVA did not organize presentations of DEIS Tier 2, Volume 9 prior to submission of the DEIS to NIRB, although has since presented the results in all Kivalliq communities, over a two-week period in early November, 2012. Again, to AREVA's best recollection, no comments were received on the content of the Volume 9, either Appendix 9A or Part 1, Socio-Economic Environment in any community (however, the report on the presentation is currently under preparation and it may be that in reviewing all notes it will prove that comments had been made).

7 – Data cleaning (or cleansing) is intended simply to correct evident errors, or investigate suspected errors, in a quantitative database – errors that can arise from any number of sources, from poor enumeration to data entry mistakes. Where evident errors can be corrected, or suspected errors investigated, this is done.

As an example, where a zero is inadvertently added in the entry of a number into a database. The database says that a woman reports having 70 children. A review of the original record (in this case it might be a household survey form) may indicate that the women in fact reported having 7 children. The electronic record is corrected accordingly. If the review of the survey form indicates she did in fact report having 70 children, a judgement call needs to be made on whether to leave the 70, or delete the record. In this particular case, the record would likely be deleted (and the sample size reduced accordingly) insofar as the intent of the question was to establish how many children the women has physically had (pregnancies, live births or living children as the case may be).

The goal is to minimize the potential for obvious errors to skew data analysis results. Data cleaning was not used for qualitative data.

8 – AREVA suggests that the integration of IQ into the discussions and conclusions of DEIS Tier 2, Volume 9 Part 1, Socio-Economic Environment and Appendix 9A is evident throughout. Methodology sections in Part 1, Socio-Economic Environment (Section 4 Scope and Broad Methodology of the Assessment) and in Appendix 9A (Section 4.1 Baseline Methodology) describe participation of Inuit in data collection and how that input was used. AREVA's socio-economic decision making is contained within Part 1, Socio-Economic Environment, Section 6 Social Management and reflects input on the Project from Inuit, including from people in communities in general, and from people who have spoken of their experiences of

Meadowbank. Section 6 also reflects what is considered (evolving) good practice in Nunavut. The baseline in Appendix 9A and the assessments in Part 1, Socio-Economic Environment, Sections 8 to 13 include multiple references to input from Inuit and specifically discuss the content of this input in coming to conclusions. The technical review will provide opportunity to more specifically identify in what respects the integration of IQ into AREVA's decision making requires clarification.

IR Number: Makita 9

Request Preamble:

Information Request# 9: Economic Modelling (Section 13)

To: AREVA

Preamble: The EIS models economic effects (including government and Inuit organizations' revenues) assuming a price for uranium of $75/lb and $107/lb. However, more information is needed to assess project economic effects in the event that the price of uranium does not fall between these two values. More information is needed on economic effects at lower prices for uranium, as well as information on project feasibility at lower prices of uranium. Depending on the date of project feasibility analyses, these may also be outdated as costs for a number of other projects in Nunavut have unexpectedly risen. There also appear to be several omissions in the analysis presented. Table 13.1-3 (the source of the $1-billion figure) does not seem to include a period for the company to write down capital expenditures on the project. As regional employment levels for the project are not certain, the economic impact needs to be modelled on a variety of potential values. It is unclear whether or not the economic impact considers the large number of retail goods that Nunavummiut purchase outside of the territory of Nunavut.

Request:

1) What is the project viability at the current price?
2) What would revenues to the government be at the current price and an intermediate price between the current price and the assumed $75/lb?
3) Append AREVA's latest feasibility study to the EIS. This would be required if the company were publicly traded in Canada.
4) When were the costs for the project last reviewed? Several projects have since substantial increases in their costs and this has called into question the viability of projects in much less challenging environments.
5) Table 13.1-3 (the source of the $1-billion figure) does not seem to include a period for the company to write down capital expenditures on the project. What is the likely period before the project shows a "profit for tax purposes"? How would other developments AREVA might undertake in Canada or elsewhere affect the company's "profits for tax purposes", i.e. would development of other projects in other regions reduce the amount of revenues to GN, NTI and Canada? Can AREVA transfer profits and losses between jurisdictions where they operate?
6) AREVA indicates that "The Project will affect the fiscal position of the Government of Nunavut, both through generation of revenues but also potentially from costs that may be imposed by Project activities and their effects on demand for infrastructure and services." Given the increase in pressures on social, educational, justice, housing, and other services and infrastructure, quantify these incremental costs to the GN.
7) The economic impact to Nunavut should be modelled based on a variety of possible employment levels of Inuit and Nunavut residents.
8) Does the economic impact consider the relatively unique retail structure of the Nunavut economy and the large % of retail goods that are purchased from outside the territory?

AREVA Response:

Makita 9 (3, 4, 5, 7): NIRB correspondence to AREVA on July 13, 2012 Appendix B - Information Requests Identified by the NIRB as Not Requiring a Response.

NIRB Rationale: The NIRB does not require AREVA to produce any information in responding to the IR that it reasonably considers to be confidential or that raises a privacy concern.

Makita 9 Requests 1 to 5

DEIS Tier 2 Volume 2 Project Description and Assessment Basis Section 18.5 states that the overall Project cost, including capital, operating and decommissioning expenditures, is estimated at $57 CAD/lb.

DIES Tier 1, Volume 1, Main Document, Section 1.3.1 addresses economic feasibility:

> *"The economic feasibility of the Kiggavik Project depends on 1) the production cost for the uranium concentrate including construction, operation and decommissioning costs and 2) the market value of the final product. An Initial Feasibility Study (IFS) for the Kiggavik Project was completed in November 2011. The study assessed the technical and economic viability of developing and operating a uranium mine and mill site in the Kiggavik area and estimated the capital cost of the Project at $2.1 billion and the operating cost at $240 million per year. This initial feasibility study will be updated and refined with a final feasibility study. The market price for uranium concentrate over the last five years has been within the range needed for a reasonable return on investment to its owners and future opportunities are strong enough to encourage Project advancement with the intent of development that will coincide with viable future markets."*

See response to IR GN-DOF 51 for information on taxes.

Makita 9 Request 6

The DEIS argues that in general, community wellbeing is expected to be positively affected by the Project. Aside from policing, increased costs to government for delivery of services would largely derive from significant migration in face of capacity constraints to provide services to rapidly growing populations in Baker Lake and Rankin Inlet, if these two hamlets did in fact draw in-migrants from elsewhere in Kivalliq and Nunavut. Given that the strongest link between increased demand for government services and project effects is through this expected stimulus to in-migration it is valuable to look at more recent data than was available at the time of preparation of the DEIS, data related to population growth. This data, with discussion, is presented in the response to IR GN-H&SS/NHC 68.

At the time of the preparation of the DEIS, there was some evidence of more than expected rapid population growth in Baker Lake and Rankin Inlet in 2009 and 2010, coincident with the start of Meadowbank operations. There is less evidence of this now – revised data show Baker Lake population growth rates within expected ranges in the absence of Meadowbank. The statistical evidence for increased migration into Baker Lake and Rankin Inlet in response to Meadowbank has thus largely disappeared as of 2011. Given that Meadowbank has recently announced an earlier closure, it is not expected that the project will motivate significant

migration into Baker Lake in 2012 and beyond. The situation in Rankin Inlet is more difficult to predict with the advancement of the Meliadine Project and the possibility of hamlet mining experience being sought in relation to the Mary River Project.

It is noted that there continues to be public belief in Baker Lake that, contrary to the statistical evidence presented above, the population is rapidly growing. The population is in fact growing, albeit at a slower rate than in the past. Also, Baker Lake is more populated in the sense that activities associated with both Meadowbank and Kiggavik likely bring many more visitors to town than in the past and increasing incomes are generally believed to generate more public activity. In addition, it may be that in-migration of people looking for economic activity but that have not yet given up their home address will not show up in tax file data as a resident in Baker Lake.

Briefly, the conclusions of the assessment with relevance to increased demand for GN services are listed below. (Notes on incremental costs are in brackets, necessarily qualitative.)

1. Primary drivers will be employment, increased incomes and migratory movements of Kivalliq residents. It is not expected that there will be large numbers of out of area people migrating into Kivalliq as a result of the Project.

2. Employment and increased income are associated with improved physical and mental health status, implying less recourse to health services. However increased income is also associated with increased demand for health services, including potentially health services not currently available.

The Canadian Institution for Health Information released a study in 2011[1], on drivers of increasing health costs between 1975 and 2011. The study concludes that the major drivers are compensation of health professionals, increased use of services and evolving types of services (new drugs, new technologies) – aging populations were found to be only a 'modest' cost driver and there was no evidence that levels of morbidity are affecting health spending growth, but in fact may be constraining growth. Thus incremental costs for health services can be expected to result from i) increased demand for services not currently offered in Nunavut (but not increased need for those services); ii) shifts in population that increase localized demand; and/or iii) use of Nunavut health services by the Project.

i. With regard to the first, there is currently high demand and need for many health services in Nunavut. To the extent that the Project brings additional resources to the revenues of government, there is more capacity to fund improved health services for those currently in need. But it is not expected that the Project will increase the needs for health services beyond what they currently are.

ii. With regard to the second, it is unlikely according to currently available data that there will be high net migratory flows attributable to Kiggavik in the next ten years. To the

extent that this does occur in Baker Lake, capacity constraints would become more evident than health service providers indicate they currently are. In Rankin Inlet health service providers do not foresee capacity constraints given recent new construction, equipping and staffing of health facilities.

iii. To the extent that AREVA is able or needs to use Nunavut health services, costs will be fully reimbursed. (No significant incremental costs to meet health service needs are foreseen although expectations for expanded services, if met, imply incremental costs.)

3. Employment is associated with increased demand for education. Employment is not expected to result in more births. Increased demand will manifest largely in lower absentee and dropout rates. (There can be incremental costs associated with reduced dropout rates. However it is noted that these are almost certainly outweighed by the benefits – including fiscal benefits – of higher educational achievement.)

4. Increased income is associated with decreased demand for social assistance. (Incremental savings)

5. Increased income and population growth as a result of migration are associated with increased demand for police services. (Incremental costs)

6. Migratory movements of Kivalliq residents do not overall increase demand in the region, but can shift patterns of demand. It is acknowledged however that it is more difficult to shift the patterns of supply. For example, population growth in a destination community may imply a need for more police, but there must always remain at least two policemen in all other communities, irrespective of population shifts. As another example, the building of additional physical infrastructure in a destination community has capital costs that cannot be 'recuperated' from other communities. (Incremental costs in the event of significant intercommunity migration)

7. Migratory movements of Kivalliq residents dependent on social housing are complex. People do not need to move to access Project direct jobs, but may choose to for any number of personal reasons. People who move out of social housing in one community to move to another release housing stock in their home communities. Those who move to take up jobs and are able to move into social housing will pay more for that housing. Both of these would be fiscal benefits. There is also some potential for these people, in the longer term, to move into the private market, releasing social housing stock' however, where migrants need social housing in their destination community either supplying that new housing, or managing negative effects of overcrowded housing, imply costs to government. (Expected to net out as incremental costs if migration occurs, most likely in the years post 2021)

8. Most of the migration effects are expected to be minimal during the construction phase. People are well aware that construction jobs are not permanent and are unlikely to make

significant life choices on the basis of temporary work. (Incremental costs not expected, if they occur at all, until the years post 2021)

9. AREVA expects to pay corporate taxes to GN over the operations phase. Payroll taxes, corporate taxes paid by supplying businesses, personal income taxes paid by the newly employed (by AREVA or by supplying businesses) will be additional. (Incremental resources)

Makita 9 Request 7

[NIRB correspondence to AREVA on July 13, 2012 Appendix B - Information Requests Identified by the NIRB as Not Requiring a Response. NIRB Rationale: The NIRB does not require AREVA to produce any information in responding to the IR that it reasonably considers to be confidential or that raises a privacy concern.]

DEIS Tier 2, Volume 9, Socio-Economics and Community, Part 1, Socio-Economic Environment, Section 13.1.1, notes that the model is not able to address employment levels by ethnicity, but only by place of employment. The expectation that many of these 'jobs in Nunavut' would be taken up by non-residents is identified as a potential source of overestimation of project effects on the economy of Nunavut; however, there are also a number of other sources of both overestimation and underestimation. The discussion concludes that:

> *"The limitations noted above, and other model limitations, have implications for both overestimation and underestimation. On balance while there is some tendency towards overestimation, this is compensated for by the use of conservative assumptions about construction costs, and operations production levels. Irrespective of model limitations, in contrast to the information on direct Project employment and expenditures provided in Section 8, Effects on Community Economies, the results of the model runs do provide a quantitative estimate of indirect and induced economic effects. The use of Statistics Canada's input output model also provides a common, replicable methodology for estimating economic effects in Nunavut that, if used to analyze other shocks to Nunavut's economy, permits comparisons between different projects."*

Makita 9 Request 8

Yes, the model is constructed on the basis of actual, measured exchanges that take place in the economies of Canada and each of its provinces and territories.

1 Study accessed at:
http://www.cihi.ca/cihi-ext-portal/internet/en/document/spending+and+health+workforce/spending/release_03nov11

IR Number: Makita 10

Request Preamble:

Experiences with the Meadowbank gold mine (Section 7, 8, 9 and 10)

Preamble: There is limited analysis of the impacts of the Meadowbank gold mine on the community of Baker Lake. This makes cumulative analyses for social impacts impossible to assess.

Request:

1) Undertake a comparative study with Meadowbank, specifically addressing recent stats on employment turnover/attrition rates, rates of violence and crime, rates of STIs, etc., a direct comparison of the Meadowbank and AREVA socioeconomic baselines, and interviews with Meadowbank management and socioeconomic monitoring team to clarify their sense of the impact of Meadowbank on Baker Lake. Which trends are AREVA likely to exacerbate, alleviate, or otherwise impact?
2) 2) Include the most recent data from Nunavut Bureau of Statistics for all socio-economic issues considered in the report (i.e., 2010 crime statistics are not included), as well as the latest findings of the Kivalliq Socioeconomic Monitoring Committee.

AREVA Response:

NIRB correspondence to AREVA on July 13, 2012 Appendix B - Information Requests Identified by the NIRB as Not Requiring a Response.

NIRB Rationale Makita 10.1: The NIRB notes that some information requested may not be publically available.

NIRB Rationale Makita 10.2: Does not meet criteria for IRs - more appropriately addressed through technical review comments.

Consistent with the NIRB determination, AREVA will address these comments in more detail during the technical review. There are multiple references throughout both Volume 9, Part 1, Socio-Economic Environment and Volume 9, Appendix 9A to Meadowbank, including as examples in discussions of population growth rates, the land based economy, traditional culture, employment, incomes, education, health and crime. New socio-economic data is continually released by multiple organizations and AREVA expects to review newly available information, where relevant, to respond to technical comments and to update socio-economic data for purposes of the FEIS. It is also noted that, as NIRB has suggested, much of the data requested is not publicly available and therefore, even if it were accessible, could not be published in an EIS.

IR Number: Makita 11

Request Preamble:

Data regarding the Inuit Workforce (Section 8)

Preamble: While the DEIS makes mention of the Inuit experience with the Meadowbank gold mine, the data on Meadowbank's workforce is quite general. To meaningfully assess the potential impacts of mining in the Kivalliq, a more detailed breakdown of the employment statistics for the Meadowbank gold mine is necessary.

Request:

1) Provide a more detailed description of the Inuit experience with the Meadowbank gold mine. Provide information about employee turnover rates, disaggregated by gender and ethnicity. (e.g. provide statistics for the turnover rate for Inuit women and Inuit men). Provide statistics for each year of the Meadowbank project's construction and operation.
2) Provide more information on ethnic and gender stratification in the workplace. (e.g. provide the numbers of Inuit men and numbers of Inuit women employed as: labourers, janitors, cooks helpers and cabin cleaners; equipment operators or administrative workers; engineers; foremen; management) Provide statistics for each year of the Meadowbank project's construction and operation.

AREVA Response:

NIRB correspondence to AREVA on July 13, 2012 Appendix B - Information Requests Identified by the NIRB as Not Requiring a Response

NIRB Rationale: Do not meet criteria for IRs - information requested is not within the scope of the NIRB's Review.

Detail requested in this IR is not publicly reported.

IR Number: Makita 12

Request Preamble:

Gender-based Analyses (Section 10)

Preamble: While the DEIS makes mention of gendered impacts, they are scattered throughout the document. To properly assess the impacts of the project on Inuit women, these scattered discussions need to be drawn together into a comprehensive gender-based analysis (as requested by Pauktuutit Inuit Women of Canada in the fall of 2011).

Request:

Request: Prepare a gender-based analysis of the specific effects of the project, including issues like violence against women, STI infection rates, child care issues, sex work, gender discrimination, etc., as requested by Pauktuutit in 2011.

AREVA Response:

Given that this is a request for reorganization of information presented in DEIS Tier 2, Volume 9, Socio-Economics and Community, Part 1, Socio-Economic Environment and a request for additional assessment that would require baseline data that is not available, it is best addressed as a technical comment as explained below.

Where AREVA expects there to be differential effects on women, this is discussed in DEIS Tier 2, Volume 9 Part 1, Socio-Economic Environment. There are employment issues (barriers to rotational work for women and consequent under representation in the mining workforce, safety of the workplace specific to harassment of all types), harvesting issues (for women who hunt, but also for women who depend on harvested resources, in face of any decrease in harvesting levels or of sharing), wellbeing issues (stress on families of rotational work, changing gender role models), and service and infrastructure access issues (in the event of increased pressure on these as a result of rapid population growth). The volume also notes where such issues are of particular concern to more vulnerable women – those with young children and single heads of households.

AREVA has included in DEIS Tier 2, Volume 9, Socio-Economics and Community, Part 1, Socio-Economic Environment, Section 6 measures relevant to managing differential negative impacts on women including working with women to identify and attempt to overcome barriers to employment at the mine site, maintaining a safe workplace, support to Inuit culture, and the Employee and Family Assistance Program. The volume also notes AREVA's preparedness to work with communities to address community level needs (Section 6.3.7), and notes that child care has been identified as a possible area of support.

With regard to the specific issues of violence against women, STI infection rates and sex work, there are not only no baseline data at the community level and no gender disaggregated baseline data, but also no data that would permit an assessment of the effects of one mining project specifically. Given this limitation, it is understood that rates of violence against women and STI infections (primarily chlamydia and gonorrhea) are known to be exceptionally high in

Nunavut. Contributing (often interrelated) factors include cultural dislocation, exacerbated by social conditions such as inadequate and overcrowded housing, high rates of unemployment and poverty, low educational achievement, substance abuse and a 'learned cycle' of behaviour. AREVA acknowledges that the Project will be a contributing factor to ongoing cultural change, and potentially substance abuse on the part of some individuals. Volume 9 Part 1, Socio-Economic Environment concludes as well that the Project will have important benefits for employment, poverty alleviation, educational achievement and role models. These benefits are not restricted to the Project workforce, but to spouses, children and other family members of workers, and to others as employment opportunities in communities expand.

IR Number: Makita 13

Request Preamble:

Responsibility for Negative Impacts on Wellbeing (Section 10)

Preamble: While the DEIS indicates a number of negative impacts would affect various communities in the Kivalliq, the DEIS does not indicate which impacts AREVA considers its responsibility to mitigate, and which impacts AREVA does not. Further, the DEIS claims AREVA will monitor socio-economic change, but also that socioeconomic changes are almost impossible to monitor and provides no indication of how socioeconomic change will be monitored.

Request:

1) The GNWT Communities and Diamonds report shows that diamond mining is possibly or probably associated with negative trends in the following indicators of well-being: potential years of life lost; communicable diseases, single parent families, various forms of crime, crowding, trapping, hunting and fishing, average income, income assistance, employment/unemployment/labour participation rates, and high school completion rates. Indicate the extent of AREVA's responsibility for each of these indicators.
2) Explain in detail how AREVA will monitor socioeconomic change.

AREVA Response:

1 – DEIS Tier 2, Volume 9, Socio-Economics and Community, Part 1, Socio-Economic Environment, Section 7.2 presents an analysis of the Communities and Diamonds report data between years prior to 1996 when the diamond mining began and 2009. The full results of the analysis are in the DEIS. Possible or probable associations between the diamond mines and negative trends for indicators mentioned in this IR are addressed below.

For the four indicators [out of a total of 29 investigated] where both a negative trend has been observed in affected communities and the investigators concluded that a causal link with mining is plausible, the same negative trends are observed in unaffected communities. Only in the case of a single one of these four indicators (the percentage of single parent families) has the negative trend been stronger in the affected communities – that is, the percentage of single parent families has grown faster in affected than it has in unaffected communities.

It is further noted that of all the negative trends mentioned in part 1 of the IR, the report confirms negative trends only in, i) single parent families (as noted above); ii) communicable disease; iii) total crime; and iv) 'other criminal code offences'. With regard to crime, it is also noted that trends in spousal assault, violent crime, property crime, federal statute crime and traffic crime are reported to be the same or positive. Trends for all other indicators mentioned in part 1) of the IR are reported to be positive, with the exception of hunting and fishing, which is reported to continue at the same level it has in the past.

AREVA notes that subsequent to the submission of the DEIS, the Communities and Diamonds report for 2010 has been published. This report confirms only two negative trends with possible

association to mining (in small communities affected by the mines). The two are observed increases in STIs and single parent families. This is out of total of 22 socio-economic indicators tracked.

AREVA discusses responsibilities for trends in the DEIS, as relevant. As examples, there are discussions of the associations between rotational work and stresses on families, particularly women; between rising incomes and crime; between single status largely male workforces and sexually transmitted diseases; between employment and alcohol and drug abuse. In acknowledging these associations, AREVA takes some (but not all) responsibility and has proposed a number of mitigation measures in response, to manage workforce behaviours and to assist individuals who are experiencing challenges.

2 – DEIS Tier 2, Volume 9, Socio-Economics and Community, Part 1, Socio-Economic Environment, Section 6.5 notes AREVAs expectation to fully collaborate with the Kivalliq Socio-Economic Monitoring Committee, with the four parties to the Nunavut General Monitoring Plan, with the Kivalliq Inuit Association and with NIRB in monitoring socio-economic change in the Kivalliq Region. The current situation is that there are multiple monitoring mechanisms in various stages of development that are in place, or will be put in place before the start of Project construction in 2017. The detail of the roles and responsibilities relative to the socio-economic monitoring framework that is evolving over time will be subject to ongoing discussions between AREVA, these other parties, communities and (logically) Agnico Eagle and/or other mining project proponents in Kivalliq. Section 6.5.5 identifies what data AREVA expects to routinely collect and analyze, and will or could make available. Section 6.5.6 outlines i) what AREVA would see as its role, relative to other parties; ii) proposes three different 'avenues' towards making socio-economic monitoring more effective in addressing the impacts on communities of, specifically, large mines; and iii) makes some suggestions as to what indicators might be used to effectively monitor socio-economic change.

Given AREVA's emphasis on collaborative, effective and efficient (cost effective) monitoring, Section 6.5 provides as much detail as is available at this point in time. It is noted that not all the detail provided in the section may be included in AREVA's eventual socio-economic monitoring.

More detail will become available as the EIS process advances, as NIRB, GN and KIA reporting requirements are finalized, as NGMP and SEMC monitoring mechanisms and indicators evolve, and as discussions advance as to how organizations and people in Nunavut and Kivalliq would see AREVA's participation in ongoing socio-economic monitoring.

IR Number: Makita 14

Request Preamble:

Responsibility for Impacts on Community Wellbeing (Section 10)

Preamble: For many of the potential negative impacts on community wellbeing, the DEIS places blame on "poor personal decisions". This makes it difficult to understand which parties are responsible for negative socio-economic impacts.

Request:

Request: Explain how AREVA conceptualizes "bad personal choices" vis-a-vis community and family network well-being (i.e., why are negative impacts a personal/individual fault in some cases but not others?).

AREVA Response:

DEIS Tier 2, Volume 9, Socio-Economics and Community, Part 1, Socio-Economic Environment, Section 10 makes two references to personal choice, as follows:

In the introduction to Section 10, there is the statement "*For some who do access economic opportunities, poor personal choices can be made."*

In Section 10.1.4, there is the statement *"Actual effects [of rotation on family function] will depend on the success of work force management measures in accommodating individual needs, the effectiveness of counseling services, and the capacity on the part of individuals to manage the lifestyle, importantly through the personal choices they make."*

AREVA suggests that in neither case is 'fault' assigned. The term 'personal choice' is simply an acknowledgement that people respond differently to different stimuli, on the basis of innumerable factors that can influence the choices people make. The addition (in item 1 above) of the adjective 'poor' is simply an acknowledgement that the choices people make, as a result of whatever factor or combination of factors, can have negative consequences, for themselves and those around them. Thus it is not that a negative impact is a personal fault in some cases and not in others, but only that a negative impact can arise from a number of causes and that personal choice is an element to consider in understanding cause.

IR Number: Makita 15

Request Preamble:

Mitigation of Issues Related to Sexual Harassment at the Worksite (Section 6; Section 10)

Preamble: The DEIS states that AREVA will help mitigate negative impacts and enhance positive impacts, in part, by "maintaining a safe workplace for women workers, who can face unique challenges, and on a case by case basis, providing additional support to women applicants and employees to enhance the potential for employment success" (6-8)

However, there are few details provided regarding how AREVA will ensure that the proposed Kiggavik mine will be a "safe workplace for women workers". There are references to AREVA providing "Training on, and enforcing policies related to harassment" (6-8); providing "additional support to women applicants and employees to enhance the potential for employment success" (6-8); and creating health and safety training programs which will include "modules on sexual health, including inappropriate sexual behaviours" (6-15).

However, there is no discussion of the specific content of these policies, support programs and training programs. This is especially concerning, given that the DEIS admits that "It is likely that consensual (but adulterous) sex, prostitution, and sexual harassment (potentially extending to rape)... will occur at the Project". (10-5) Without information on the specific content of these programs, there is no way to assess whether or not they will be effective.

Request:

1) How does AREVA reconcile the fact that it is claiming they will create a "safe" workplace for women, but admits that it is likely that sexual harassment, rape and prostitution will occur at the proposed Kiggavik workplace?
2) Provide details of the anti-harassment policies and training modules AREVA intends to use.
3) Provide details of the support programs AREVA will make available for female employees.
4) Provide a clearer definition of what is meant by "inappropriate sexual behaviour"
5) Provide details of the modules related to sexual health that will be used in AREVA's health and safety training programs, including the ways in which these will consider "inappropriate sexual behaviour".

AREVA Response:

1 – AREVA will create a safe workplace through policies, orientation, training and enforcement of policies but all risk cannot be eliminated and incidents will occur over the life cycle of the Project.

2 – AREVA's Respectful Workplace policy is posted at every worksite, it is included in orientations to workers, workers are required to participate in respectful workplace sessions and is included in agreements with contractors. A clause included in agreements with contractors is given below. This corporate commitment to providing a respectful workplace will apply at Kiggavik. The specific modules to be given at the Kiggavik site will be developed with engagement to best address issues.

AREVA is committed to ensure that all employees and contractors, providing services at AREVA's operating sites, have a right to a work environment where their dignity is respected and they are free from harassment and violence. It is everyone's responsibility to ensure that all personnel work in a safe and productive environment.

3 – Female employees working at Kiggavik will have access to the Employee Family Assistance Program (EFAP). They will also have access to their supervisors, to senior management, to the human resources department and Inuit employees will have access to an Inuit Elder. Female employees will be able to express their opinions and concerns and raise complaints through complaints procedures including confidential reporting. Periodically, AREVA will solicit input from employees through surveys. Programs are modified based on such feedback. AREVA commits to liaise with women's groups in Nunavut for their expertise in taking proactive measures for managing risk to females. Prevention measures may include awareness, prevention and post trauma training or support. AREVA's health professionals may be involved in the education and training component for employees on site.

4 – The definition of 'inappropriate sexual behaviour' for purposes of the impact assessment in DEIS Tier 2, Volume 9, Socio-Economics and Community, Part 1, Socio-Economic Environment, Section 10 is sexual behaviour that i) is criminal, and defined in law, including rape, harassment and prostitution; and/or ii) has an otherwise negative result, which can only be individually defined -- an occurrence of consensual sex for example may or may not be appropriate depending on the circumstances and values of the participants and their families. For purposes of Section 6, the first (illegal activity) is addressed in Section 6.3.4 and the second in Section 6.3.5.

5 – Specifics on health and safety are yet to be developed for the licensing stage. AREVA commits to liaise with community groups in Nunavut for their expertise in sexual health initiatives and will follow Canadian Human Rights legislation, Canada Labour Code and Canadian Labour Law professionals to ensure inappropriate sexual behaviours are defined and addressed appropriately and ensure harassment investigations proceed professionally where required and that any disciplinary action that may be required to be taken as a result of the investigation is taken immediately.

IR Number: Makita 16

Request Preamble:

Mitigation Measures Related to Impacts of a Rotational Workforce (Section 4; Section 6; Section 10)

Preamble: The DEIS outlines a number of potential negative impacts on community wellbeing related to rotational work schedules. These include “poor decisions on uses of new income”, “fears (however real) of infidelity” and “changing cultural roles”, which may lead to discord within families (4-4; 10-6) The DEIS also states that this discord may lead to domestic violence. (10-6) The DEIS states that AREVA will mitigate these impacts by providing informal counselling at the mine site to help mitigate the impacts of rotational work and by creating a “culturally appropriate employee and family assistance program to address individual and family problems that threaten an individual’s ability to continue working.” (6-6) However, there are no details provided regarding these plans for counselling and assistance programs.

Request:

1) Provide more details regarding AREVA’s proposed “informal counselling” program. Indicate, specifically, what “informal counselling” means. Indicate who will be hired as “informal counsellors”, what their qualifications will be, how they will be trained and whether there will be attempts to train and hire Inuit as “informal counsellors”. Also, provide details regarding the context in which this “informal counselling” will take place (e.g. will a space at the worksite be dedicated to this?) Will there be policies and mechanisms to ensure confidentiality between workers and counsellors?
2) 2) Provide more details regarding AREVA’s proposed “culturally appropriate employee and family assistance program”. What sort of assistance will be provided to employees and their families? How will AREVA ensure that this “assistance” is “culturally appropriate”? How will AREVA determine whether or not workers qualify for this program? Will confidentiality be ensured for workers that make use of this program?

AREVA Response:

1 – AREVA considers informal counseling the support offered to employees outside of the formal EFAP program. Positions of informal counseling on site may include peers, elders (or equivalent), Occupational Health Nurse, HR Advisors, and the possible involvement of other experienced or respected local community members. Confidentiality and the following of company policy will be upheld on the Project site. Details of office spacing and location of the informal counseling will be determined once operational floor plans have been developed. AREVA’s employment policy is to maximize the employment of people in Kivalliq communities to the extent they meet the qualifications; therefore, Inuit will be considered in the hiring of positions that may include informal counselling as part of their duties.

2 – Given that the service provider of the EFAP has not yet been determined for the Kiggavik Project, program specifics are not currently known. The EFAP program in place for the current operations includes counselling (family, relationship and psychological), and planning services. AREVA commits to providing a market competitive culturally appropriate EFAP service for its employees and their dependent family members. AREVA will request its EFAP provider to consider best practices from other Nunavut Community Based Organizations in providing

culturally appropriate services to employees and their dependent family members. Confidentiality will be a mandatory expectation of the EFAP provider hired by AREVA. Community and employee feedback will be solicited and used to continually improve programs.

IR Number: Makita 17

Request Preamble:

Compensation for Impacts (Section 6)

To: AREVA; KIA

Preamble: The DEIS discusses the issue of compensation for impacts on harvesting and human health. It states that the "IIBA is expected to include provisions for compensation for mortality of some large mammals, with compensation being paid to the KIA. It is still possible however that an environmental risk could be realized with consequent effects on one or more individuals. In any such unlikely event, AREVA would ensure fair compensation to the affected individual(s), on the basis of an estimate of harm, including taking into consideration cultural loss. The compensation would of course depend on the determination of harm, but could imply a financial payment and/or an offset of some kind." (6-18) Later, with regards to human health impacts, the DEIS states that "in the event of an unforeseen accident compensation is paid." (6-18) As the issue of compensation is of great concern to many Nunavummiut, more information on this topic is required for Nunavummiut to be able to discuss AREVA's proposal.

Request:

1) What criteria will be used in the "determination of harm"?
2) Who will make final judgements regarding the "determine of harm"?
3) With regards to impacts on wildlife, where will the burden of proof fall – on hunters to prove that they have been impacted, or on the mining industry to prove that no impacts have been felt?
4) Will the burden of proof fall on hunters to prove that AREVA's activities are the cause of environmental degradation, or on the mining company to prove that another factor caused this degradation?
5) With regards to impacts on human health, where will the burden of proof fall – on people who experience health problems to prove that the uranium mine caused their illnesses, or on the mining industry to prove that health problems were caused by other factors?
6) What level of financial compensation will be paid to individuals?
7) What other kind of "offsets" would be used?
8) How is "cultural loss" defined?
9) How will "cultural loss" be quantified? Kivalliq Inuit Association?
10) How will the money paid in compensation for the mortality of large mammals be spent? Will it be used to benefit the hunters in the Baker Lake area?

AREVA Response:

The Kiggavik Project has been designed to realize a profit for the owners and benefits for Nunavummiut in particular, and all Canadians in general, without a compromise to ecosystem integrity or human health. Compensation is addressed in DEIS Tier 2, Volume 9, Socio-Economics and Community, Part 1, Socio-Economic Environment, Section 6.3.8.

Any compensation provided by AREVA will be in accordance with the Nunavut Land Claims Agreement (NLCA). The NLCA addresses compensation in Article 6 Wildlife Compensation, Article 20 Inuit Water Rights Part 3: Compensation, Article 21 Entry and Access Part 8: Surface Rights Tribunal and potentially Article 26 Inuit Impact Benefit Agreements.

Wildlife Compensation - NLCA Article 6 Part 4 outlines the procedure for making a wildlife compensation claim. This Part includes submission of a claim to the tribunal (Article 21 part 8), should the claim not be settled by the claimant and company within 30 days, and what the tribunal can take into account and give weight to in hearing a claim. Further, NLCA 6.5.1 states that *"Where an IIBA includes wildlife compensation provisions, that agreement shall preclude the need to address wildlife compensation under Articles 20 and 21."* A summary of the Inuit Impact Benefit Agreement will be provided with the FEIS.

Human Health Compensation - Occupational exposure limits and environmental discharge and emission limits will be set to be protective of human and environmental health. Occupational injury or disease will be processed through the Workers Safety and Compensation Commission according to the Workers Compensation Act. AREVA will investigate claims of injury or ill health to members of the public to determine the likelihood that harm could be due to site activities. Claims of impacts on human health would need to be assessed on a case by case basis, including whether or not compensation would be payable in each circumstance. Existing dispute resolution mechanisms would be followed to ensure fair resolution of any claims made. AREVA's insurers may be involved in the process.

IR Number: Makita 18

Request Preamble:

Various Socioeconomic Requests (Sections 10; Appendix 9A)

Preamble: Throughout the socio-economic impact chapter, a variety of claims are made with little evidence. More background is required to assess the validity of these claims and predictions.

Request:

1) Page 81 of Appendix 9A states that "Although mining's potential has barely started to be realized, the evidence is that many of the expected benefits can be achieved, in comparably short time frames". Provide this evidence.
2) AREVA also states that "There is also anecdotal evidence that the opportunities offered by Meadowbank, and expected other mining projects, has increased incomes, decreased unemployment rates and motivated improved educational achievement in Kivalliq, most dramatically in Baker Lake." Document this anecdotal evidence. (Appd. 9A, p 81)
3) AREVA states "Nor do people in Baker Lake believe that alcohol abuse has increased in association with Meadowbank" (10-4). Provide evidence to substantiate this claim, as well as any evidence contradicting it, as documented throughout AREVA's data collection events, consultation sessions, and available reports and studies.
4) Page 10-20 states that "Negative effects on individuals are not expected to occur with such frequency that overall community wellbeing suffers." Provide justification for this conclusion.

AREVA Response:

Response to sub-requests 1 and 2

The quotes provided are sourced from one paragraph, which reads in full as follows:

'Although mining's potential has barely started to be realized, the evidence is that many of the expected benefits can be achieved, in comparably short time frames. The development and now operation of Meadowbank has employed more than the forecast number of Inuit. Meadowbank has motivated the development of a number of joint ventures between Inuit and southern firms, enabling Inuit businesses to participate in the project, expand, hire and gain important experience in the mining sector. There is also anecdotal evidence that the opportunities offered by Meadowbank, and expected other mining projects, have increased incomes, decreased unemployment rates and motivated improved educational achievement in Kivalliq, most dramatically in Baker Lake.'

That many of mining's expected benefits can be achieved is presented in summary form in the paragraph above (employment, businesses opportunities, increased incomes, decreased unemployment and improved educational achievement). Additional detail on Meadowbank's effects can be found throughout DEIS Tier 2, Volume 9, Socio-Economics and Community, Part 1, Socio-Economic Environment and DEIS Tier 3, Volume 9, Socio-Economics and Community, Part 1, Socio-Economic Environment, Appendix 9A, including:

In Appendix 9A, Section 4.2.3.4:

'Meadowbank has created an important opportunity for expansion of NTI registered businesses in Kivalliq. Agnico Eagle has expended over $300 million to NTI registered companies from the beginning of construction in 2007 until mid-2011, about 20 percent of total expenditures. Recent figures for 2011 alone see the percentage of expenditures to NTI registered companies approaching 30 percent, over 90 percent of this to companies in Kivalliq Region, primarily in Rankin Inlet and Baker Lake (AEM, 2011).'

Appendix 9A, Section 4.2.5:

'Success in finding employment opportunities is linked to graduating from high school and timing.' 'More graduations may be because of new employment opportunities, and the building of a high school in Baker Lake in 2004.'

'People seem to be more interested in school and training because they see more employment opportunities.'

'Mines are sources of employment and encourage people to stay in school, to get training.'

(Comments are from qualitative socio-economic data collection, that is, observations of Inuit.)

Appendix 9A, Section 4.2.7:

'Baker Lake and Chesterfield Inlet however have seen median income grow by over 40 percent in a decade. Much of Baker Lake's growth can be attributed to Meadowbank – incomes went up by 15.2 percent in 2008 and declined much less in 2009 than in most other communities in Kivalliq; however Chesterfield has seen substantial income growth in multiple years over the decade, predating Meadowbank.' (Observation based on NBS data in Table 4.2-22).

Volume 9, Part 1, Socio-Economic Environment, Section 5.2.2:

'Whereas between 2006 and 2008 incomes fell across Kivalliq (by between 0.1 percent in Rankin Inlet and by 18 percent in Coral Harbour), in Baker Lake incomes had increased by about 12 percent. Unemployment rates in Baker Lake are reported to have decreased – although there are no available unemployment rate data, as of mid-2010 Meadowbank employed about 10 percent of the Baker Lake labour force in that year.'

Volume 9, Part 1, Socio-Economic Environment, Section 8.1.2:

Table 8.1-2 indicates that Meadowbank achieved 22 percent Inuit employment during the construction year of 2007/2008 and 24 percent in the operations year of 2011. The expectation

in the Meadowbank EIS was that the workforce would achieve 25 percent Inuit participation, although this 'may take some time to be fully realized'. It is noted however that the 25 percent was equal to about 40 construction jobs and 90 operations jobs, whereas the actual number of Inuit working at Meadowbank in 2007/2008 was 132 and in 2011 there were 270 Inuit workers. That is, about three times as many Inuit are working for Agnico Eagle than expected at the time the Meadowbank EIS was finalized. It is also noted that AEM reported to the 2012 Nunavut Mining Symposium a 36 percent Inuit workforce by 2012.
Volume 9, Part 1, Socio-Economic Environment, Section 8.1.2:

'Agnico Eagle's hiring since 2006 . . . now approaches 250 people from Kivalliq. Data from tax files in Table 8.1-3 show that 320 more tax filers reported earned income in 2008 than in 2006, about two thirds of whom lived in Baker Lake.'

Volume 9, Part 1, Socio-Economic Environment, Section 8.1.3:

'Historical data on expenditures on goods and services in Nunavut is provided in Table 8.1-6. The data suggest that in the recent past, in the order of 20 percent of expenditures of Cumberland Resources (previous owner of Meadowbank), Comaplex (previous owner of Meliadine) and Agnico Eagle have been spent in Nunavut, almost all of it in Kivalliq with NTI registered companies.'

The Meadowbank EIS only considered expenditures on goods and services (contracting) combined with expenditures on employment – the expectation was that the combination of contracting and employment expenditures would approximate 20 percent of total expenditures. It is also noted that AEM reported to the 2012 Nunavut Mining Symposium a 54 percent Nunavut based business share of total contracting for 2011.

Response to sub-request 3

There are no publicly available data on alcohol consumption of the employed versus the unemployed in Baker Lake. What follow are the only three recorded comments specific to the association between employment and alcohol abuse from people in Baker Lake, from DEIS Tier 3, Volume 9, Socio-Economics and Community, Part 1, Socio-Economic Environment, Appendix 9A, Attachment C:

- Employment has been good as people are able to pay off bills, feel good about themselves and their abilities to take care of their families but some people do get messed up.
- Drug and alcohol problems seem to be about the same as before.
- Fears about increased alcohol and drugs abuse with Meadowbank were overblown. It hasn't happened.

Thus AREVA did not have a recorded comment from Baker Lake that indicated many or most of the newly employed at Meadowbank were abusing alcohol or that alcohol abuse had gone up. It is noted that individuals in other communities did speak of an association between employment and alcohol abuse – these comments were not about either Baker Lake or Meadowbank specifically. In addition, discussions on the subject with the police in Baker Lake are presented in DEIS Tier 2, Volume 9, Socio-Economics and Community, Part 1, Socio-Economic Environment, Section 10.1.2. AREVA's socio-economic consultants spoke with police in 2009, 2010 and early 2011 on the subject of trends in alcohol abuse in Baker Lake with the results as reported in Section 10.1.2 – that a shift in timing was observable but not in total number of incidents.

Subsequent to the preparation of the DEIS, the RCMP presented crime figures for 2010 to the Kivalliq Socio-economic Monitoring Committee, figures that showed a large spike in crime in Baker Lake. In addition, during AREVA's open house in Baker Lake in November 2012 (report not yet finalized), the following comments were made by people on the association between mines (including the Project) and alcohol abuse:

- I am worried that if more people move here, there will be more drinking and drugs. The mine will help the community, but some money goes to drugs and alcohol. There is more liquor in Baker Lake with Meadowbank.
- Sometimes with projects there is alcohol, and this is a problem for the town. There is an increase in alcohol when mines open. I hear that alcohol is a problem in Baker Lake. We should try to solve this problem.
- Mining companies mean alcohol problems in the town.

Given the association between alcohol and crime, and what appear to be increased concerns in Baker Lake about alcohol abuse, AREVA would expect to investigate the issue further at the time the FEIS is prepared, when more information may be available on the experience at Meadowbank.

It is noted that it is possible to parse the over 1,200 recorded comments in Volume 9, Appendix 9A, Attachment C in innumerable ways but overall, references to income and employment are almost always in association with positives, and references to alcohol abuse (and the more frequent references to drug abuse) are in association with many issues including poor parenting, limited health and social services, loss of identity, as well as to employment and increases in income.

Response to sub-request 4

The quote provided is a summary statement included in DEIS Tier 2, Volume 9, Socio-Economics and Community, Part 1, Socio-Economic Environment, Section 10.1.8. AREVA suggests that Section 10 presents justifications for assessment determinations (at a community level, that is, for most people) on each of the 18 identified effects considered under this major socio-economic component. The discussions of the potential for impact throughout Section 10

reference i) socio-economic baseline data; ii) input from Inuit and non Inuit in Kivalliq; and iii) experience in Nunavut and in the Northwest Territories with large mines, including Meadowbank. This comment can be more fully addressed in the technical review when it can be identified in what respect the discussions on each effect are considered insufficient.

IR Number: Makita 20

Request Preamble:

Additional Information Request

To: AREVA, CNSC, GN

Request: Document whether caribou in the Kivalliq region have ever been tested for the levels of cesium in their bodies. If they have been:

Request:

1) When did the testing take place, by whom was it conducted, and what levels were recorded?
2) Where did the radioactivity originate, and how was it transmitted to caribou?
3) Were Inuit in the Kivalliq region also tested for the levels of cesium in their bodies? If so: a. When did the testing take place, by whom was it conducted, and what levels were recorded?
4) b. What studies have been published about the testing and the test results?

AREVA Response:

NIRB correspondence to AREVA on July 13, 2012 Appendix B - Information Requests Identified by the NIRB as Not Requiring a Response

NIRB Rationale: Do not meet criteria for IRs - information requested is not within the scope of the NIRB's Review.

Given that Cesium will not be generated by the Kiggavik Project and it is not within the scope of the assessment, no assessment of Cesium levels in caribou were completed.

Studies of radionuclide uptake in caribou, including cesium, have been conducted by Thomas et al 1994. DEIS Tier 3, Volume 8, Human Health, Appendix 8B was included in the DEIS to provide additional information regarding uranium and ionizing radiation.

IR Number: Makita 23

Request Preamble:

Uranium Policy and Public Plebiscites

To: Kivalliq Hamlet Councils; AREVA; KIA; NTI; GN; NPC

Preamble: All of the organizations addressed in these questions (exempting AREVA) have issued policies supporting uranium mining since 2007. This took place without any public vote on the issue, despite the fact that Inuit in the region have historically opposed uranium mining and the Keewatin Regional Land Use Plan stipulates that uranium mining cannot be carried out without the support of the people of the Kivalliq. It has also become clear that NTI and the KIA have entered into some form of legally binding agreements with uranium mining firms that they claim would make it impossible for them to reverse their policy on uranium. Makita has repeatedly called for a public vote on the issue of uranium mining in Nunavut. On August 23, the Ottawa Star1 quoted Baker Lake mayor David Aksawnee as saying that AREVA's Kiggavik proposal was "something that the people of Baker Lake will be voting on. It's up to the community."

Request:

5) (AREVA) If Inuit in Baker Lake vote "no" to the proposed Kiggavik mine, will AREVA withdraw their proposal?

AREVA Response:

NIRB correspondence to AREVA on July 13, 2012 Appendix B - Information Requests Identified by the NIRB as Not Requiring a Response

NIRB Rationale: Do not meet criteria for IRs - information requested is not within the scope of the NIRB's Review.

AREVA is committed to the environmental assessment process in place in Nunavut that allows many opportunities for Inuit in Baker Lake and other stakeholders to participate.