NIRB File No. 09MN003: NIRB Response to Comments Submitted Regarding *Draft* EIS Guidelines – February 9, 2011

NOTE: Any major changes made to the Draft EIS Guidelines were highlighted in yellow in the document for quick reference.

Section	Commenter	Comment	Action	Justification
General Comments	Makita	Lack of essential documents translated into Inuktitut	No action taken	Submission of a translated EIS Guidelines has been delayed due to the technical issues regarding translation.
	Makita	Question regarding end use	No action taken	In the absence of evidence that the information supplied to the NIRB is inaccurate or misleading, the NIRB does not have the resources nor the mandate to conduct further inquiries of this nature and will rely upon the information as submitted
Table of Contents	INAC	INAC notes that *subsections 6.5.1.3* through *6.5.1.7* and *6.5.3.1* are not listed within the table of contents. For the purposes of consistency and inclusiveness, these subsections should be included. INAC notes that *Sections 8.1.5 Hydrology (including water quantity) and Hydrogeology* and *8.1.6 Groundwater and Surface Water Quality* are the same thing. These sections should be combined and entitled "Groundwater and surface water quality and quantity"	No action taken	
Glossary	NTI/KIA	Suggest revising Inuit Qaujimajatuqangit to – "Means traditional, current and evolving body of Inuit values, beliefs, experience, perceptions and knowledge regarding the environment, including land, water, wildlife and people, to the extent that people are part of the environment." This definition replaces the definition in the NIRB Guide to Terminology and Definitions. The NIRB is at risk of creating confusion with its Guidelines. It should indicate that this definition replaces the definition in their 2007 *Guide to Terminology and Definitions".*	Incorporated suggestion	
	NTI/KIA	Suggest revising Inuit Qaujimaningit to "Inuit Qaujimaningit is distinct from Inuit Qaujimajatuqangit in that it acknowledges that Inuit Qaujimajatuqangit has continued to evolve where information has been added or removed from the body of knowledge. Inuit Qaujimaningit is a reflection of the core values for how Nunavummiut and Nunavut see the world and governs itself". The distinction between the definitions was unclear and confusing.	No action taken	
	BQCMB	In addition to definitions of terms "provided for the Proponent's greater certainty" (p. v), the glossary should provide definitions that improve the ability of review participants to understand technical terms used during the review. These should include definitions for key terms related to: uranium mining, mining, wildlife, environmental assessment topics.	Incorporated some of the definitions	Terms in the glossary are specific to Nunavut, the arctic and the proposed project. Additional terms can be found in the NIRB's *Guide 2: Guide to Terminology and Definitions* (NIRB, 2007).
	CARC	Lacking in terms related to uranium mining	Incorporated some definitions	See above
	CARC	The glossary provided for the Baffinland draft EIS guidelines (NIRB, Nov. 2009), which runs 6 pages in length and covers ecological and assessment terms much more thoroughly (i.e., bioaccumulation, biodiversity, climate change, demography, ecosystem, raptor, etc.)	Incorporated some definitions	See above
1 Introduction	HC	HC is developing detailed guidance documents containing advice related to human health and EAs. These documents will be available online from HC's Environmental Assessment Program website, http://www.hc-sc.gc.ca/ewh-semt/pubs/eval/index-eng.php , and may be useful resources to all parties during the NIRB's assessment of the Kiggavik Project.	No action taken	
2 Guiding Principles	NTI/KIA	Guiding principles are the fundamental beliefs of an organization; its philosophy that guides an organization no matter the changing circumstances. What is documented in this section is partially Guiding Principles, but mostly contains information on crucial assessment requirements and expectations and would be relevant to the conformity analysis. Guiding Principles should be concise and apply to all parts of the assessment process.	No action taken	

Section	Commenter	Comment	Action	Justification
		An example of EA related guiding principles can be found at: http://www.ceaa.gc.ca/default.asp?lang=En&n=B3186435-1. NIRB may in the future wish to review the Guiding Principles section. No specific text is offered now for the sake of expediency. There are good points in this section, but they are not drafted as principles, but rather as discrete environmental assessment instructions e.g., Traditional Knowledge, Methodology.		
	BQCMB	The BQCMB supports basing the review on an ecosystem-based approach. This approach is essential for fully assessing the effects of mining uranium specifically. The Proponent should be directed to include an in-depth assessment of the food chain effect that would result from their proposed Project, including eco-systemic effects of dust dispersal to lichen-caribou-wolves and people. This assessment should occur over a suitable time frame that relates to the long-term persistence of uranium mining contamination in the environment. The BQCMB supports including consideration of transboundary effects for Project effects that would result outside Nunavut. An assessment of bio-physical and socio-economic effects across the ranges of the caribou herds is required. This should include an assessment of the transboundary effects on caribou and caribou harvesters that may result from aerial dispersal of radioactive dust.	Incorporated suggestions	Addition to 8.1.13.2 Bullet 2, Sub-bullet 3.
2.1 NIRB's Impact Review Principles	INAC	The third bullet states that the time perspective for the cumulative effects assessment (CEA) is from the early planning of the project through to its operation and possible closure. INAC recommends that the Guidelines direct the CEA to include consideration of whether the inclusion of post-closure and maintenance phases of the project is appropriate.	Incorporated suggestion	
	NTI/KIA	Bullet 3: include this bullet under 7.3 Methodology. It is a crucial point related to overall approach.	No action taken	
	NTI/KIA	Bullets: "Therefore, the….and the ways in which the Proponent intends to address the concerns identified." Move all bullets to 7.4 Public consultation as they are specific instructions to the Proponent and not principles.	Incorporated suggestion	
2.2 Public Participation and Engagement	Makita	**The role of government:** NIRB's Draft Guidelines are silent on the question of the capacity of government (both federal and territorial) to regulate a uranium mine in Nunavut. The FEARO Guidelines were not. Among other things, they asked: 2.2.2: What is the expected departmental cost for each government office that would have a regulatory….These are questions that government should answer, and questions that we hope NIRB will require the government to answer.	No action taken	The FEARO Guidelines were developed at a time that pre-dated the establishment of the regulatory framework that governs EIA and licencing in Nunavut today. Given the established regulatory processes in Nunavut such an inquiry is no longer required.
	BQCMB	The Proponent should be required to engage residents and organizations from across the caribou ranges during development of the EIS. This should include residents of caribou-range communities in the NWT, Saskatchewan, and Manitoba.	No action taken	Outlined in section 5.4.1
2.3 Precautionary Principle	NTI/KIA	Bulleted section: instead of the word "action", "proposed project" should be used. Bullet 1: should read, "…examined in a manner consistent with the precautionary principle…" not "…examined in a precautionary manner…"	Incorporated suggestions	
	BQCMB	2.3 Precautionary Principle and 2.4 Sustainable Development The requirement for risk assessment and dealing with different aspects of uncertainty needs to be strengthened. The proponent should be directed to conduct thorough assessments specifically for radiation-related risks generally, and for risks to sustainability of caribou herds and to present and future generations of subsistence and other caribou harvesters across the caribou ranges. Assessing risk requires describing incomplete information and its influence on EA decisions. Uncertainty arises from process variability (natural variation among individuals and environmental variation, which is unpredictable); observational errors (measurement errors including those from inaccuracy or inadequate sampling design); and model errors (computer models are incomplete pictures of the complexity of biological systems).	Incorporated suggestions	Added to section 8.1.9, 8.9.10, 8.1.11, 8.1.12, 8.1.13, 8.1.14.
	CARC	The proponent must clearly state assumptions that are developed where scientific uncertainty exists and how these relate to EA decisions, and clarify plans to reduce the level of uncertainty. Risk assessment in these situations should be addressed.	Incorporated suggestion	
2.4 Sustainable Development	NTI/KIA	Remove bullets 1-3. These bullets are repetitive and do not contribute to the guidelines.	No action taken	Requested to be included by other commenters
2.5 Traditional Knowledge (also see section 7.5)	NTI/KIA	Traditional knowledge is a crucial source of information in any environmental assessment. The NIRB expects that the assessment will include Inuit Qaujimajatuqangit (i.e., Inuit traditional knowledge) and Inuit Qaujimaningit. Inuit Qaujimajatuqnatit is the experience, perceptions and knowledge regarding the environment including land, water, wildlife, and people to the extent that people are part of the environment. Inuit Qaujimangingit is distinct from Inuit Qaujimajatuqqnagit in that it acknowledges that Inuit Qaujimajatuqnagit continues to evolve and forms the core values for how	No action taken	

Section	Commenter	Comment	Action	Justification
		Nunavummiut and Nunavut sees and governs itself. It is not just information from the past. There is no need to justify the inclusion of traditional knowledge. It has been part of environmental assessment for almost two decades.		
	BQCMB	The BQCMB agrees that traditional knowledge should be incorporated into the EIS, and that it should include "local and community based knowledge, ecological knowledge (both traditional and contemporary)". The NIRB should provide more specific direction to the Proponent regarding how it expects them to "incorporate" TK into the EIS. Compiling traditional knowledge is only the first step in applying it into environmental assessment. Analysis, interpretation and synthesis are also necessary. TK should also be used to design monitoring programs and mitigation measures.	No action taken	See sections 7.5 and 7.7
	BQCMB	Given the likelihood of transboundary effects, use of traditional knowledge must include knowledge and values of Aboriginal peoples from across the caribou ranges in NWT, Saskatchewan and Manitoba, as well as Inuit knowledge and values.	No action taken	See sections 7.9 and Subsections in 8.1
	CARC	The guidelines should include direction to the proponent how to include TK (broadly referring to Inuit Qaujimaningit) into the EIS, and a spatial scale that can incorporate Transboundary TK as it affects caribou and other wide-ranging species.	No action taken	
2.6 Study Strategy and Methodology	INAC	INAC would like to suggest that it would be more desirable to require the proponent to identify knowledge and understanding gaps more broadly and subsequently to identify, with justifications, which are significant and relevant. This will ensure that the process of this determination is verifiable and subject to review and comment.	Incorporated suggestions	
	BQCMB	The Proponent should be required to identify all significant environmental effects from a perspective that acknowledges several key characteristics of their proposed Project.	No action taken	
	NTI/KIA	Most of what is associated with this Principle is also found in 7.3.3. This section can be simplified and the detailed instructions can be associated with 7.3. Suggest revising text.	Incorporated suggestions	
2.7 Use of Existing Information	NTI/KIA	Remove the word "scientific" as there will also be socio-economic surveys and related studies. Neutralize the language to include all types of information.	Incorporated suggestion	
	NTI/KIA	Lessons learned from Meadowbank are relevant not only to baseline but also to effects analysis and mitigation. "In preparing the EIS, the NIRB expects……, which are related to the Project and the environment." Add follow-on sentence: "For example, 'lessons learned' already exist in relation to the Meadowbank Project and should be captured by the Proponent."	Incorporated suggestions	
	BQCMB	The Proponent and the NIRB should ensure that all supporting documents, including those supporting the Project proposal, EIS, and other documents the Proponent has produced and referenced, are readily available on the NIRB Public Registry. Other documents should include previous assessments of AREVA's projects elsewhere, such as Saskatchewan's experience with AREVA's projects, including reports by governments and monitoring agencies.	No action taken	
	CARC	The NIRB should ensure in the EIS Guidelines that key pieces of existing information should be readily available to reviewers, perhaps by placing these reports on the NIRB registry. Since uranium mining is recently new to the North, a special effort should be made to ensure that relevant information from Saskatchewan uranium mining experience is readily available.	No action taken	
3 Scope of the NIRB Assessment				
3.1 NLCA – Sections 12.5.2 and 12.5.5	CNSC	Bullet g: CNSC interprets decommissioning activities (think 'reclamation/restoration/clean up') as occurring before abandonment, not after. A licence to decommission is required before a licence to abandon (the latter describes a release from CNSC licensing.) Change "following" to "before"	No action taken	Bullets are from Section 12.5.5 of the NLCA
	INAC	Bullets a) - g) under section 3.1 seem to be incorrectly referenced and are not consistent with Section 12.5.5 of the NLCA.	Incorporated missing bullet	
3.2 Scope of NIRB's Assessment	BQCMB	The NIRB's document "Revised Draft Scope of the NIRB's Assessment of the Kiggavik Project Proposal" should be included in the EIS guidelines as Appendix B.	Scope added as Appendix B	
4 Overview of the EIS	BQCMB	The Proponent and the NIRB should ensure that the EIS and its supporting documents are all posted on the NIRB Public Registry in a manner that is manageable for reviewers, communities and the general public.	Incorporated suggestions	Add limitations to map and document sizes for ease of access
4.1 Presentation				
4.2 Conformity				
4.3 Length	Laura Bowman	The proposed length is completely unreasonable for a project of this magnitude; it would reasonably take considerably more than 150 pages to even describe the project, which is for five individual mines and numerous other facilities. Given that the NIRB document is pages, this requirement should be removed completely from the Guide and the requirements for this EIS.	No action taken	
	NTI/KIA	Elimination of extraneous content: The majority of the review team's comments focused on the opportunity for NIRB to create a more concise	No action taken	

Section	Commenter	Comment	Action	Justification
		document by eliminating areas of extraneous, non-applicable or duplicative text. The disconnect of the NIRB requesting that in the interest of public participation the proponent deliver its EIS main document in under 150 pages, while the Revised Scope and Draft Guidelines document that together top 100 pages, is an area where improvements can be in the interest of promoting greater public participation in the review process.		
4.4 Format	CNSC	Bullet 18: CNSC interprets decommissioning activities (think 'reclamation/restoration/clean up') as occurring before abandonment, not after. A licence to decommission is required before a licence to abandon (the latter describes a release from CNSC licensing.) Remove "and abandonment" and call the plan the "Decommissioning Plan".	Incorporated suggestions	
4.5 Data Presentation	INAC	**Mapping:** To assist in standardizing the information provided to regulators (i.e. to ensure appropriate and consistent internal reproduction of maps) INAC suggests that the Proponent provide raw data information such as GIS Shape Files with projection information, ESRI shape files, Datum information for any GPS data, etc. INAC recommends that maps be at a reasonable scale and that ownership of lands be indicated on these (Federal Crown, Commissioner's Land, IOL, Municipal, etc).	No action taken	
4.6 Summaries				
4.7 Translation	Lutselk'e Dene 1st Nation	Appendix A.6 concerns about accurate translation of Uranium and radiation issues	No action taken	
5 EIS Content	GN	Consider requesting proponent specifically addressing: providing baseline info and predictions for radiological parameters; potential radiation doses on both uranium mining workers and the public during all phases of the project	No action taken	Information contained within Subsection 9.4.9
5.1 Proponent Info	CNSC	2nd paragraph: Transportation of radioactive material will be a significant item in this project and the proponent should describe their knowledge and experience on the CNSC Packaging and Transport of Nuclear Substances Regulations (PTNSR) and Transport Canada's Transport of Dangerous Goods (TDG) Regulations. Change: add another bullet: Transportation of radioactive materials	Incorporated suggestions	
	BQCMB	The Proponent should be instructed to describe specific lessons learned from open pit and underground mining and road construction on the arctic tundra, especially lessons from NWT diamond mines, given that AREVA has not built or operated a mine on the tundra. They should describe project design and planning considerations to address conditions such as continuous permafrost, winter blizzards, and summer winds during all phases of the Project, in addition to safeguards it will put in place to compensate for its lack of experience in this region.	No action taken	Information contained within Section 5.1 paragraph 2
	CARC	The proponent should clarify experience with open pit mining and road building in the Arctic, and explain how it intends to obtain this experience (as an example the NWT diamond mines would be a good source).	Incorporated suggestion	
	INAC	In the second paragraph the transportation networks should include marine as well as *air shipping*.	Incorporated suggestion	
	TC	Paragraph 2, Line 2; Edit to include air shipping as a transportation network.	Incorporated suggestion	
5.2 Regulatory Regime	INAC	In the first paragraph, INAC recommends adding "*the requirements of*" before the words all relevant federal, territorial… In the same sentence it is also recommended to include the word "guidelines" after policies. Consider rephrasing the last sentence to read, "A list of currently held *and required* permits and licences, including dates of issues and expiry *(as applicable*), shall be appended."	Incorporated suggestions	
5.3 Regional Context	GN	Suggest examples of the socio-economic regional context to balance the biophysical examples provided within the EIS Guidelines	No action taken	
5.4 Assessment Boundaries	CNSC	Second 5.4.2: 2nd paragraph: CNSC interprets decommissioning activities (think 'reclamation/restoration/clean up') as occurring before abandonment, not after. A licence to decommission is required before a licence to abandon (the latter describes a release from CNSC licensing.) Remove "abandonment" from current sentence. Could add to "post closure" sentence if desired	Incorporated suggestions	
	BQCMB	The appropriate scale for caribou spatial and temporal boundaries is the annual range over decades. This time period is required to capture at least a full caribou cycle. Caribou numbers follow cycles of about 40-60 years, and as the numbers rise and fall, ….	No action taken	See Section 5.4 paragraph 3
	CARC	Spatial and temporal boundaries: the proponent should develop assessment boundaries that address decade long cyclic changes in caribou numbers, and the resultant changes in seasonal movement patterns and ranges. Although many caribou populations are now at low levels, the boundaries must consider future distribution of caribou and changes in Inuit land use and occupancy. Experience from the NWT diamond mines suggests that direct impacts to the vegetation and wildlife distribution can occur in 10s of km from source – mainly as a result of metals and find dust particles deposited on vegetation (lichen).	No action taken	
	NTI/KIA	5.4.1: first sentence: replace "phenomenon" with "environments". A phenomenon is an observable event. The word is not appropriate here.	Incorporated suggestion	

Section	Commenter	Comment	Action	Justification
	INAC	5.4.1: In order to recognize that harvesting activities of groups other than Inuit (including other Aboriginal groups, and other Northerners) may also be impacted by project activities, the third bullet should be expanded to include "…Inuit and other harvesting…" This change should be applied throughout the document as appropriate. 5.4.2: The third paragraph relates to factors in relation to spatial boundaries; however section 5.4.2 addresses the temporal boundaries of the project.	Incorporated suggestions	
5.5 Land Tenure				
5.6 Analysis of Need and Purpose	NTI/KIA	Bullet 4: delete bullet. Bullet 4 is not a component of the analysis of need and purpose. The result of consultation may contribute or help clarify need and purpose, but the Proponent should not be asked to analyze support or opposition.	No action taken	
6 Project Components and Activities	INAC	INAC suggests in addition to describing project information throughout all stages of the project, there also be a consideration for temporary closure or care and maintenance in the possibility that operations come to an unforeseen pause.	Incorporated suggestions	Section 6.0 and 6.3
	NTI/KIA	This section focuses on the physical build components of the project, but not the human side of the project. Suggest revising text to "Economic and Employment Information:	Incorporated suggestions	Added as a new section
	Laura Bowman	Additional consideration should be given to the effect of runoff on the various project components listed in Part 6, for example from waste rock, dock storage tailings and waste facilities.	No action taken	Information contained within Section 6.2 bullet 1
	Laura Bowman	Where water diversions or other activities are described, all seasonal variations in these activities should be described.	Incorporated suggestion	
6.1 Alternatives	CNSC	Bullets: Additional analysis of alternatives should be completed for effluent treatment methods. Alternative effluent treatment systems will affect the quality of effluent and contaminant loadings released to the natural environment. Include new sentence.	Incorporated suggestion	
	CNSC	3rd paragraph: Criteria should include radiological doses to workers and the public to ensure doses are As Low As Reasonably Achievable (ALARA). Include a new sentence after "… and environmental impacts of the project". "It should also include radiological doses to workers and the public."	Incorporated suggestions	
	BQCMB	Alternatives for the Kiggavik Project that the Proponent should be required to analyse concerning their risk of significant short-term and long-term adverse and cumulative effects on caribou, caribou habitat and caribou harvesters include: "No-go" for the Kiggavik Project, No road development associated with the Project, Alternatives for transport of the yellowcake from the Kiggavik site, including an alternative with no transport to Baker Lake via truck, Alternatives for the routing and type of roads (winter vs. all-weather); use of roads after decommissioning, Alternatives for air transport (size of aircraft, frequency of flights, especially low-level flights)	Incorporated suggestions	
	NTI/KIA	Alternatives to water stored tailings (i.e. dry stack) should be considered. "Alternatives – The EIS shall present alternatives for the following project elements:" add the following " tailings and waste rock storage alternatives;"	Incorporated suggestions	
	Laura Bowman	Suggest alternatives to mine type (i.e. open pit vs. underground) for each mine, to tailings management options, to fuel storage and work camp operations, to waste management, sewage, and explosives management, and to use of aircraft and landing strips	Incorporated some of the suggestions	
	INAC	INAC suggests the last bullet be changed to "Alternatives to *mine* project components *including, but not limited to, tailings management facility, mill, processing and mine* (i.e underground vs. open pit)."	Incorporated suggestions	
	NRCan	Suggest a bullet on "Alternative for mine waste management"	Incorporated suggestion	
6.2 Project Design	GN	Recommends that the range of future climates considered should include scenarios used in the Arctic Climate Impact Assessment and in the relevant Intergovernmental Panel on Climate Change assessment for Polar Regions. Also: in the first bullet, specify that 'environment' refers to the biophysical environment; and include "How current land use activities influenced project design".	Incorporated some of the suggestions	
	BQCMB	General project design issues should also include description of how design, engineering, management and monitoring plans will minimize radiation exposure and contamination of the environment generally and to caribou specifically. Description of how potential impacts to wildlife have influenced the design of the Project should specify how project planning has taken into account the need to minimize disturbance to caribou and caribou harvesters.	Incorporated suggestions	
	NTI/KIA	For brevity condense the last three bullet points on socio-economic conditions, archaeological resources, wildlife, soapstone, public consultation and TK into one or two bullets. Add in a comment on the approach to be used for the effects analysis of these issues on project design.	No action taken	
	CNSC	Bullets: The design and layout of a facility can be the most effective way to reduce the radiation does to workers and the public. The EIS must identify how radiation protection will be considered in the design. Add the following bullet: "A discussion of how potential radiation doses to workers and the public under both normal operations and potential accident and malfunction situations have influenced the design of the project".	Incorporated suggestions	
	CNSC	Bullet 2: Climate change will have an impact on the groundwater regime and a change in ground water regime will impact the project design and	Incorporated	

Section	Commenter	Comment	Action	Justification
		operation of facilities. Add the words "the groundwater regime" after the words "the hydrology regime".	suggestions	
6.3 Project Phases	INAC	Consideration should be given to describing the project in four phases: project construction, project operation, project decommissioning and post-closure. In addition, potential future project developments should be described. A detailed time line for activities should also be provided to enable identification of overlap between phases. This will enable the cumulative quantification of pollutants released from multiple project activities, as the identification of which happen simultaneously and which do not will be facilitated.	Incorporated suggestion	Second point is covered in section 6.5
6.4 Future Development				
6.5 Detailed Project Proposal Description	GN	The anticipated employment demands or structure of the project should be considered a project component that requires description. Notwithstanding the impacts/benefits/opportunities on employment in Nunavut by the project, which are addressed in the impact assessment sections of the guidelines, a description on employment structure in the detailed project description is needed by the GN.	No action taken	Addressed in Section 8.2 specifically in section 8.2.4
	GN	The EIS Guidelines should request that the proponent provide reasonable estimates of the capital investment or cash flow for the development and operation of the project. This information is required for the GN to better understand the magnitude of the benefits of the project.	No action taken	Addressed in Section 8.2.9
	Laura Bowman	More detailed project description requirements is absolutely necessary. Provided a detailed list that should be included in the project description in the EIS.	No action taken	
6.5.1 Kiggavik and Sissions Mine Sites	CNSC	6.5.1.1: bullet 11: In addition to permeability of the geological formations, other hydrogeological parameters such as hydraulic head and groundwater flow direction are also important for consideration. Replace the word "permeability" with the words "hydrogeological conditions"	Incorporated suggestions	
	CNSC	6.5.1.1: bullets: Fractures have implications to both the ore deposit and the project design and operation. Add a new bullet. Fractures and their implications to the Project.	Incorporated suggestions	
	CNSC	6.5.1.2: bullet 1: The Main Zone pit is the biggest pit at Kiggavik and should not be excluded from the mining plan....(Main Zone, East Zone, Center Zone and Andrew Lake) and…	Incorporated suggestions	
	CNSC	6.5.1.2: bullet 7: Confusion in the meaning of the bullet. Bullet 7 should read: Design of the impoundment/retention structures and measures for seepage control.	Incorporated suggestions	
	CNSC	6.5.1.1: bullet 9: Rewording of ore/waste rock description to include geochemistry and radiological characteristics. 9th bullet should read: The mineralogy and geochemistry of ore and waste rock including radiological characteristics, metal/metalloid content and acid generating potential.	Incorporated suggestions	
	CNSC	6.5.1.2: bullet 12: Confusion in the meaning of the bullet - clarification is needed. Geological characteristics should be also included. Bullet 12 should read: Discussion of how geotechnical factors, geological characteristics (weak rock formations, fault zones and their hydrogeological characteristics), and permafrost conditions (seasonal thawing, taliks, degradation due to mining disturbances) were considered in the design of the open pits and underground mining facilities.	Incorporated suggestions	
	CNSC	6.5.1.2: bullets: Ground (surface and underground) failure is one of the main factors posing a safety risk not only to workers, but failure could also cause significant inflows and adverse environmental effects. Add one bullet after bullet 12. Stability analysis of the pit slopes and underground mine works and provide adequate ground control measures where necessary.	Incorporated suggestions	
	CNSC	6.5.1.2: bullet 13: Prediction of the maximum inflow into the pit and the underground mine during mining is important for design of the control measures, pumping capacity, and monitoring program. Use of a rainfall event with a return period of 1/100 is not conservative enough for the design of the storm water management and flood control measures. Suggest breaking bullet 13 into two bullets.	Incorporated suggestions	
	CNSC	6.5.1.3: bullet 3: Rewording of tailings description to include mineralogy and radiological characteristics. 3rd bullet should read: Describe the tailings chemistry, physical properties (rheology, solid content, consolidation density, slurry temperature, volume estimates), mineralogical and radiological characteristics.	Incorporated suggestions	
	CNSC	6.5.1.3: bullets: Mitigation of radon flux is part of the waste management design. Add bullet: Method for controlling and monitoring radon flux from the tailings management facility.	Incorporated suggestions	
	CNSC	6.5.1.3: bullet 4: There is confusion in the meaning of the sentence and clarification is needed. Bullet 4 should read: Discuss how geotechnical factors, geological structures (fault zones and their hydrogeological characteristics), and permafrost conditions (seasonal thawing, taliks and open taliks, degradation due to tailings deposal, and long term evolution) were considered in the design of the tailings management facility.	Incorporated suggestions	
	CNSC	6.5.1.3: bullet 6: There is confusion in the meaning of the sentence and clarification is needed. If it is envisioned that permafrost will not remain around the Tailings Management Facilities (TMFs) throughout their life cycle, the artesian inflow into the TMFs should be predicted with the support of numerical modelling, Design of the groundwater seepage/inflow control measures and a monitoring program will depend on the analysis results.	Incorporated suggestions	

Section	Commenter	Comment	Action	Justification
		The analysis results will also influence the water management in the TMFs and the design of the water treatment plant. Use of a rainfall event with a return period of 1/100 is not conservative enough for design of the storm water management and flood control measures. Suggest bullet is broken into two bullets.		
	CNSC	6.5.1.4: bullets: For the in-pit special waste rock disposal facility, the impact of the waste rock disposal on permafrost beneath the facility should be considered. Thawing of the permafrost might cause significant artesian inflow into the facility that should be assessed. Add bullet: Discussion of the impact of disposing special waste rocks into the in-pit storage facility on permafrost beneath the facility. If thawing of the beneath permafrost is envisioned, prediction of the artesian inflow into the facility should be conducted with support from numerical modeling in both short term and long term.	Incorporated suggestions	
	CNSC	6.5.1.5: bullets: Alternative effluent treatment methods will affect the quality of effluent and contaminant loadings released to the natural environment. Please include the following bullet: Discussion on effluent treatment alternatives and the resulting effluent and downstream surface water quality and contaminant loadings to the environment	Incorporated suggestions	
	CNSC	6.5.1.7: bullets: Alternative mine de-watering water treatment methods will affect the quality of mine de-watering effluent and contaminant loadings released to the natural environment Please include the following bullet: Discussion on mine de-watering treatment alternatives and the resulting effluent and downstream surface water quality and contaminant loadings to the environment	Incorporated suggestions	
	CNSC	6.5.1.7: 1st paragraph: Clarification: the underground mine is below, not within permafrost. Paragraph one should read: "The proposed open pits and underground mine are within or below permafrost. The Proponent shall describe the following where relevant:"	Incorporated suggestions	
	CNSC	6.5.1.7: bullet 2: Pumping capacity should be based on both the meteorological data and the inflow prediction. Bullet 2 should read: Description of proposed de-watering methods, with estimates of volumes to be pumped based on both the meteorological data and the inflow prediction.	Incorporated suggestions	
	NTI/KIA	6.5.1.1: it Is important to determine the mineralogy in detail as some elements, such as arsenic, will leach out of minerals at several different pH levels. Add in a section for “detailed mineralogy”	No action taken	See bullet 3
	NTI/KIA	6.5.1.2: both of these items are significant components to mining and processing on any project. Add in bullet points for “average recovery expected” and the “amount of type of explosives to be used daily and yearly”	No action taken	
	NTI/KIA	6.5.1.3: All of these items are significant components to tailings management on any project. Add in bullet points for “the impact of the tailings on the project’s water balance”, “how water re-cycling will be done in the tailings area” and “how might the internal thermal characteristics of the tailings change based on recovery and mineralogy changes between the different ore bodies being mined”.	Incorporated suggestions	
	NTI/KIA	6.5.1.5: It is important to know how or even if water re-cycling can be done as this will have an important impact of the water balance and usage within the project area. Add in a bullet point for “how water re-cycling will be done for the project”	Incorporated suggestions	
	Laura Bowman	6.5.1.3 Tailings Management Facilities: The following should be added: The effects of radioactivity in the waste contained in the ponds on the base of the pond; The potential for seepage through cracks in rocks due to temperature changes in the pond, permeability etc.; The potential for acid mine drainage in the vicinity of the TMF	No action taken	Information contained in Bullet 3, 4, 5 and 7
	HC	6.5.1.4: Define the radioactive criteria for being considered ‘special waste rock’. Provide the anticipated amount of special waste rock, and its radioactive characteristics. Provide future disposal options for special waste rock. Provide dose estimates for workers in the vicinity of the special waste rock stockpiles.	Incorporated suggestions	
	HC	6.5.1.5: Water Supply and Water Treatment Facilities: Provide baseline levels and any anticipated increases in contaminants and radionuclides associated with the project in surface water and groundwater.	Incorporated suggestions	
	INAC	6.5.1.5: The sixth bullet contains information relating to drainage patters and diversions. This would be more relevant in Section 6.5.1.6 Natural Drainage Diversion.	No action taken	
	INAC	6.5.1.6: To supplement information contained in this section, there should also be a bullet included to address measures to prevent or mitigate sedimentation.	Incorporated suggestions	
	EC	6.5.1.5 Water Supply and Water Treatment Facilities: Bullet 5: EC recommends specifying more detail on what is expected for discussion on the receiving environment. Specifically, the extent of alterations of the receiving waters, how they will ensure non-toxicity, what the mixing zone would be, and modeling predictions for concentrations of all parameters of concern.	Incorporated suggestion	
	EC	6.5.1.7 Mining de-watering: Line 1: revise “is” to “are”	No action taken	
	EC	6.5.1.7 Bullet 2: revise to “Description of proposed de-watering methods, with estimates of volumes to be pumped based on the meteorological **and**	Incorporated	

Section	Commenter	Comment	Action	Justification
		groundwater baseline data." Although in permafrost, talik is expected under Andrew Lake, and there may be movement of groundwater at depth.	suggestion	
	EC	6.5.1.8 Landfills or Landfarms: Title revised from "Landfills or Landfarms" to "Landfills **and** Landfarms".	Incorporated suggestion	
	EC	6.5.1.8: bullet 5: this bullet should be in section 6.5.1.5 as it applies to all activities, not just landfarms and landfills.	Incorporated suggestions	
	NRCan	6.5.1.3 Tailings Management Facilities bullet 5: add "including climate trends" after "climate conditions".	Incorporated suggestions	
6.5.2 Baker Lake Dock Site and Storage Facility	GN	Public as well as private uses should be explicitly stated for potential dock uses.	Incorporated suggestions	
	NTI/KIA	These issues will affect the design and usage of the Baker Lake dock site. Add bullet points on "tide tables" and "annual rebound as a factor influencing water depth" and ice shifting on Baker Lake during freeze-up in the fall season, winter season and break-up in the spring season".	Incorporated suggestions	
	INAC	INAC recommends that a sensitivity analysis of the Baker Lake area, including an evaluation of the probability of catastrophic events such as deposition of radioactive airborne particulate, fuel spills, or other events be addressed within this section to evaluate and manage potential risks or harms to the environment. This should include contingency plans, mitigation measures, and identification of alternate community drinking water sources. Section 1 e) of the scope states that Chesterfield Inlet would also be investigated as a potential transfer site for supplies. INAC suggests that an additional section, similar to 6.5.2 be included in the guidelines requesting the appropriate information from the proponent regarding the potential Dock Site and Storage Facility at Chesterfield Inlet.	Incorporated suggestion	
	NRCan	6.5.2: bullet 1: add "seismic hazards, sea level change" after "ice thickness".	Incorporated suggestions	
	TC	Include a bullet which identifies and describes all facilities and procedures for the handling and storage of uranium concentrate	Incorporated suggestions	
6.5.3 Ground Transportation and Associated Water Crossings	CNSC	6.5.3: bullets: There would be some disturbances to permafrost during construction and operation of the proposed winter road and/or all weather road and permafrost thawing could occur.	Incorporated suggestions	
	CNSC	Add one bullet. Measures for mitigating and preventing the permafrost degradation during construction and operation.	Incorporated suggestions	
	NTI/KIA	These issues will affect the design and usage of water crossings over the Thelon River. Add bullet points on "impact of Thelon river ice on water crossing infrastructure during freeze-up in the fall season, winter season and break-up in the spring season".	Incorporated suggestions	
	DFO	DFO suggests bullet 8 of this section include a discussion as to how the design and size of water crossing will ensure adequate flow capacity to accommodate storm flows (e.g. 1 in 100 year or greater storm events) and to prevent velocity barriers to fish movement or migration. DFO also recommends adding a bullet requesting a description of any infilling of lake, wetland or stream habitats associated with road construction and the potential impacts to fish and fish habitat.	Incorporated suggestions	
	DFO	DFO would also request that the proponent identify the location of water bodies or watercourses and volumes of water required from each for the construction of any winter roads. The proponent should refer to DFO's *Protocol for Winter Water Withdrawal from Ice-covered Water bodies in the Northwest Territories and Nunavut* for further guidance on these information requirements.	Incorporated suggestion	Included with other comments
	DFO	Bullet 9 of this section identifies "Procedures and structures designed to mitigate/manage potential impacts to wildlife and wildlife movement during construction and operation". DFO would also like the proponent to describe any proposed procedures or mitigation structures planned for the protection of fish and fish habitat.	Incorporated suggestions	
	DFO	As the proponent is contemplating a cable ferry as a method of crossing the Thelon river, DFO suggests adding a bullet requesting design details of the ferry docking/landing sites.	Incorporated suggestions	
	TC	Transport Canada would require a detailed description of all stream crossings and instream works related to the construction of the winter and all-weather roads options. The crossings and in-stream works should be identified on appropriate scaled drawings showing their location, and type of proposed or existing crosses. An assessment should be provided of each crossing and in-stream work and the potential environmental impacts on navigational safety identified.	Incorporated suggestions	
	TC	TC suggests that the proponent provide a detailed description with construction schedule of all water crossings and any temporary works related to the winter-road and all-weather road options. Survey plans with dimensions indicating depth, width, length, natural obstructions, high and low water	Incorporated suggestions	

Section	Commenter	Comment	Action	Justification
		marks, shoreline structures, and adjacent properties should also be included. Current photographs of the proposed work site (photos of open water period where possible) should be attached.		
	EC	Paragraph 1, line 3: revise “include” to “includes”.	Incorporated edit	
6.5.4 Marine Shipping	GN	Include ‘Relationship of proposed marine shipping routes/seasons with local residents harvesting or traveling routes.’ (Same request was made in section 6.5.3 on ground transportation and should also be included in marine transportation)	Incorporated suggestions	
	NTI/KIA	Expand for completeness: Revise second last bullet to: “Details regarding the proposed procedures for accident, malfunctions and incident management and reporting, including accidental spills of fuel and chemicals or uranium concentrate along the shipping routes; and from the accidental grounding/standing of ships along the shipping routes; and”	Incorporated suggestions	
	NTI/KIA	The instruction was not a statement about defining the RSA for transboundary effects. Replace “The Proponent is advised to duly consider the transboundary implications of impacts to identified VECs/VESCs as results of marine shipping for the Project” with “In considering effects, the RSA may extend beyond the boundary of Nunavut”	No action taken	
	Laura Bowman	The following should be added: Anticipated loading and unloading operations, risks and alternatives. Description of any cargo sweeping that may be undertaken during loading and unloading.	Incorporated suggestion	
	CNSC	6.5.4: bullet 5: Refers to GHG and noise reduction technology for barges. Similar design considerations are not covered elsewhere (except Section 6.5.7, which mentions emissions). Therefore, topic is missed for other forms of transportation, mine/mill design and operation, etc. Was emphasis on barges intended or should bullet be replicated everywhere else it is applicable? Either recommend adding similar bullet to other applicable sections or deleting reference in barge subsection and adding a one-liner to 6.5.	Incorporated suggestions	Included suggestion throughout Section 6.0 were applicable
6.5.5 Air Transport	TC	TC suggests providing a description of the loading and offloading procedures for uranium concentrates	Incorporated suggestions	
	TC	Also potential impacts of the airstrip should be identified, impact significance assessed, and necessary mitigation applied to minimize impacts. Current drainage patterns should also be maintained and included in the EIS, as any diversions may affect local ecology and hydrology	No action taken	
	TC	Include a discussion of proposed safety measures regarding the handling of uranium concentrates and the proposed procedures for accident, malfunction, and incident reporting for the transfer of hazardous material. Identify the responsibilities of all parties for the safe transportation of hazardous materials.	Incorporated suggestions	
	NTI/KIA	These issues are directly related to the safe and efficient transport of employees, supplies and possible yellowcake. Add bullet points on “the completion of annual aviation audits for the aircraft types, companies and infrastructure associated with all project related air transportation” and “documentation of the minimum flying height and seasonal flight restrictions for the project area”.	No action taken	
	Laura Bowman	The seasons of air transportation should be included. Anticipated flight plan routes should be included.	No action taken	Covered in bullet 3 and 11
	HC	6.5.5 Air Transportation The Draft EIS Guidelines (p. 27) indicate that information be provided on “Estimates of the number of flights on a daily or weekly basis covering all phases of the Project;” and “The duration, frequency and extent of use of each airport facility/airstrip”. HC advises adding: Estimated flight schedules (times and days)	No action taken	
	HC	HC advises consulting the Noise Effects section of the attached guidance document for additional details on conducting an assessment of noise impacts. Note that HC does not possess expertise in vibration and potential effects on human health.	No action taken	
	INAC	This section is considerably less detailed that the previous section on Marine Transportation. INAC suggests that the detail in the Air Transportation section be increased as appropriate.	No action taken	
6.5.6 Borrow Pits and Quarry Sites	NTI/KIA	These issues are directly related to the projects annual impact on the LSA. Add in bullets for the “annual cubic metres required for road, dock sites and air strip maintenance” and “cubic metres required to build the airstrip”.	Incorporated suggestions	
	NTI/KIA	Under **8.2.4.2 Impact Assessment**, there are several bullets that actually project component discussions. These should be moved here. Namely, bullets 3 and 5.	No action taken	
		In the second last bullet point add in “high winds” as a natural hazard as the wind is a constant climate feature in the Arctic and the methods required to control the hazards that can be associated with it are very important.	Incorporated suggestions	
6.5.7 Power Generation	INAC	INAC suggests that this section include information regarding secondary containment measures to be employed.	Incorporated suggestions	
6.5.8 Fuel and Explosives Facilities	INAC	Further to providing location, distance and characteristics of fuel and explosive storage facilities, an identification of any environmental features which could complicate an emergency response should also be discussed. Additionally, this section should include a description of secondary	Incorporated some of the suggestions	

Section	Commenter	Comment	Action	Justification
		containment measures.		
6.5.9 Waste Management Facilities	CNSC	6.5.9: bullets: Information about liner materials is missing and is a key aspect in waste management. Add description of liner materials	Incorporated suggestions	
	Laura Bowman	This section should also contain all waste storage facilities for transport and processing.	No action taken	Covered under Hazardous waste management, bullet 1
	INAC	In the fourth sub-bullet, INAC notes that in addition to information listed regarding proposed management of waste rock piles, a discussion of dust prevention and control measures should also be included.	Incorporated suggestions	
	NRCan	Suggest a separate bullet on "tailings facilities" with pertinent sub-bullets: it is of paramount importance that the Proponent should describe in detail how process tailings and perhaps also treatment sludge, if any, will be managed both during the operation and post-closure.	Incorporated suggestions	Moved Tailings Management Facilities to Waste Management section
	EC	Bullet 3, sub-bullet 3: the sewage/grey water treatment bullet is more of an overarching aspect; spilled sewage or greywater is a low level concern and should be included in the landfarm section. EC also suggests that alternatives to landfarming should be outlined in that section.	No action taken	
	EC	Bullet 4: EC suggests that the Hazardous waste management bullet is split after the third sub-bullet with the remaining sub-bullets falling under additional bullet with the title (Camp) waste management.	Incorporated suggestion	
6.5.10 Exploration	DFO	Please include the following bullet: "Description of any exploration activities occurring on or near water bodies and the mitigation measures that will be implemented to prevent impacts to fish and fish habitat".	Incorporated suggestion	
6.5.11 Other Project Facilities and Infrastructure				
7 Impact Assessment Approaches	GN	*Data Collection & Analysis:* It is the GN's expectation that the approach taken for each component of the impact assessment should include a comprehensive baseline description, a quantification or detailed description of predicted impacts as well as a the identification of all proposed measures for mitigation (i.e., means the implementation of measures, including design, construction, scheduling, and restorative, in order to control, reduce or eliminate a potential adverse impact. This is to be applied to both biophysical and socio-economic impacts. A detailed description of follow-up, monitoring and adaptive management measures (where relevant) is also expected. These expectations are likely shared by all stakeholders and participants in this NIRB review process. The integration of these elements is therefore considered very important to the GN. As such, it is the GN's expectation that the proponent provide a 'road map' of how the data collected for the baseline was used in the effects assessment and how it will be used to support follow-up and monitoring. The EIS Guidelines should be revised to request the proponent to provide such clarity.	No action taken	This information will be contained within the concordance table which will list each of the guideline requirements and the location within the EIS to find the information.
	INAC	Section 7 is arranged in the way that some subsections have overlapping scopes. For instance, Ch 7.6, 7.7, 7.10 and 7.11 all talk about impact assessment approaches and could be incorporated into one section;	No action taken	Incorporation into one section is currently being assessed and will be completed where appropriate.
	INAC	**Radiological Considerations, Including Effects of Radiation on Human Health and the Environment:** This element appears to be largely absent from the current Guidelines. Due to the nature of the proposed mine and the significant community concern expressed in the scoping visits, comprehensive coverage of this issue is recommended. This should include comprehensive assessment of potential impacts of radiation on human health and the environment and incorporation as appropriate within each section of the Draft EIS Guidelines.	No action taken	Incorporated in Section 7.11
	Laura Bowman	Topics that require more discussion: radiation and pollution impacts, protection and mitigation and the effects on harvesters, harvesting, food security and traditional lifestyles and well-being.	No action taken	Incorporated in Section 7.11
7.1 Baseline Information Collection	GN	This project will require a large amount of collected baseline data, ongoing construction and operations monitoring data, as well as post-closure monitoring data. It is the GN's expectation that the proponent describe any and all policies and procedures relating to the collection of data as well as the methods and/or models used to analyze that data. . Quality assurance policies and procedures should also be discussed to allow for the identification of potential inaccuracies and/or inconsistencies within the data (and thereby impact predictions). Further, GN reviewers stressed the importance that all baseline data be collected and presented in a manner that allows for its comparison to other baseline data, regulatory standards and available/relevant thresholds. The EIS Guidelines need to be explicit in this regard.	No action taken	
	CARC	In some instances there have been difficulties obtaining government data relevant to environmental assessment (such as caribou collar data). The	No action taken	

Section	Commenter	Comment	Action	Justification
		Proponent should state where there are instances of data that could be used in the EA process that they did not have access to or were not provided.		
	EC	Paragraph 3, sentence 2: revise “are” to “is”, EC also suggests that this sentence is reworded to provide clarity.	Incorporated edit	
7.2 VEC and VSEC	GN	Align headings: Section 2 of Draft scope, and section 7.2.2 and 8.2	Align headings based on Scope	
	Makita	**Concerns about exposure to radiation:** One of the characteristics of the FEARO Guidelines was that they were developed specifically for the review of a proposed uranium mine. There were no references to iron ore, as there are in NIRB’s Draft Guidelines. There were, however, a significant number of sections in FEARO’s Guidelines where the proponent is required to explain how radiation may impact on plant life (3.1.1), wildlife (3.1.2), and public health (5.2). They were very clearly worded and easy to understand. Given the almost complete lack of reference to radiation or radioactivity in NIRB’s Draft Guidelines, NIRB may wish to simply incorporate these sections of the FEARO Guidelines into its Revised Draft Guidelines.	Reference to the effects of radiation included in Section 8.0	Tying most of the impacts in the sections specifically to radiation and radioactivity may actually limit the range of environmental and health effects considered. The more general wording in the NIRB EIS Draft Guidelines is more encompassing than the FEARO references.
	NTI/KIA	Add “…to be affected by the Project, and those identified in these Guidelines” to acknowledge that the Guidelines have a responsibility for identifying VECs/VSECs, but that the NIRB has also done some of the work for the Proponent through their scoping work.	Incorporated suggestions	
	NTI/KIA	7.2.2: Add ‘Family and community cohesion’ as important FE3SCs to measure impacts of rotational work on families, as well as the Project’s contribution to economic ‘haves’ and ‘have-nots’ in the community.	Incorporated suggestions	
	Laura Bowman	Wildlife harvesting should be specifically mentioned here.	No action taken	Covered within 7.2.2 Bullet 3
	INAC	7.2.2: The draft guidelines reflect a high-level representation of the VSECs identified from community scoping, the revised draft guidelines need to incorporate, under the appropriate VSECs, the specific concerns (i.e. effects of radiation exposure) raised by communities throughout the scoping sessions. As such, these concerns need to be incorporated into the appropriate requests for VSEC baseline information to provide a fair and meaningful treatment of potential impacts throughout the DEIS. This is further required to enable and facilitate the subsequent monitoring and evaluation of these predicted potential impacts over time vis-à-vis the established baselines.	No action taken	
	NRCan	The Guidelines list “climate change” as a Valued Ecosystem Component (VEC). While an important consideration, NIRB may assess whether climate change meets the definition of a “VEC” in its guidance (i.e. NIRB Guide 2 – Terminology and Definitions, August 2007), given that Climate Change is not a resource, and may be more easily characterized as a factor that impacts VECs.	No action taken	
	EC	7.2.1: bullet 7: revise to include “sediment quality”.	Incorporated edit	
	EC	7.2.2: bullet 8: revise, as the words “resources” and “land use” do not require capitalization.	Incorporated suggestion	
	CNSC	7.2: 2nd paragraph: VECs should include indicators of sensitivity to contaminants and environmental pathways of exposure and biomagnification. Suggest starting the second paragraph with: "VECs should include indicators of sensitivity to contaminants and environmental pathways of exposure and biomagnification"	Incorporated suggestion	
	CNSC	7.2.1: bullet 5: Wildlife maximally exposed to contaminants should be mentioned along with the high profile species. Add to the list of wildlife - "and less conspicuous species that may be maximally exposed to contaminants"	Incorporated suggestions	
	CNSC	7.2.1: bullets: Sediment quality should be considered as a valued ecosystem component. Add bullet "Sediment Quality" following the second bullet.	Incorporated suggestions	
	CNSC	7.2.1: bullet 3: VECs for the freshwater environment should be more specific. Please revise the third bullet read: " Freshwater aquatic environment, including representative fish species, fish habitat, aquatic macrophytes, benthic invertebrates, and other aquatic biota;"	Incorporated suggestions	
7.3 Methodology	CNSC	7.3.1: 1st paragraph: The following statement is used to describe acquisition methodology: "The sampling methods and standards should be in accordance with those prescribed by regulators in Nunavut". Clarification is required. Please provide a reference to this standard for CNSC review. If there is no standard, and the intention was to actually imply regulators operating in Nunavut, please change wording to "… with those prescribed by regulators operating in Nunavut."	Incorporated suggestions	
	BQCMB	As well as providing details about acquisition of data, the Proponent should describe: methods of data archiving used, at least for metadata; availability of data for assessment and monitoring, including when the Proponent has funded a third party (such as consultants or government) to	No action taken	

Section	Commenter	Comment	Action	Justification
		collect data; limitations on data availability and their causes; issues related to analysing data from various sources, such as statistical issues with data collected by different parties using different methods (re: comparability)		
	NTI/KIA	Section 2.6 and 7.3 are very similar and could be combined. Suggest revising text.	No action taken	
	NTI/KIA	7.3.1: Suggest revising text to "The Proponent shall specify and justify all sampling protocols and statistical processes employed in both the biophysical and social context. The reliability and scope of the results, the possibility of reproducing the analysis, and quality of contr4ol of laboratory analyses shall be analyzed. All data based on environmental sampling necessarily involve some variability, which must be determined to assess the reliability and scope of the data. The Proponent shall, for all data obtained from environmental sampling, project dispersion or variability coefficient.	No action taken	
	INAC	7.3: INAC suggests that in addition to conflicts between TK and scientific knowledge, conflicts within available scientific knowledge or within available TK also be presented in a balanced manner, with Proponent conclusions stated.	Incorporated suggestions	
	INAC	7.3.1: With respect to references made to the Nunavut General Monitoring Plan (NGMP) in section 7.3.1, INAC suggests that the proponent be requested to liaise with the NGMP Secretariat in an effort to optimize their collection and use of Nunavut general monitoring data.	Incorporated suggestions	
7.4 Public Consultation	NTI/KIA	Revise text to support NIRB objective of ensuring meaningful public participation – demonstrated link between community consultation, IQ gathering, and Project design.	Incorporated suggestions	
7.5 Traditional Knowledge	INAC	**Traditional Knowledge:** References to Traditional Knowledge (TK) appear to be largely absent from the baseline data and impact assessment sections for the biophysical and socioeconomic environments. INAC recommends the incorporation of TK into these sections.	Incorporated suggestions	
	CARC	The NIRB EIS Guidelines should specify what harvest studies are to be considered during the assessment, either past harvest studies or future ones to measure changes in hunting practices that may result from the development.	No action taken	
	Athabasca Denesuline	When collecting traditional knowledge (Section 7.5), there is no mention that a methodology will be developed for the storage and ownership issues related to TK. This is a very critical part of using TK, and must not be overlooked.	No action taken	While recognizing the importance of this issue to all concerned, it is not the NIRB's role to prescribe such requirements, as the parties seeking to use TK and the parties providing TK must be free to develop an approach that is in keeping with their own values and principles in any given case. The NIRB encourages the parties to engage in the discussion of these issues as soon as possible
	Laura Bowman	Topics that require more discussion: the effect of the project on IQ; plans to integrate IQ into the project; An emphasis on the sustainable use of non-renewable resources for future generations; An emphasis on the sustainable use of renewable resources for future generations; and a Sustainability Analysis the EIS must contain an analysis of the ability of renewable resources affected by the project to sustain current and future generations in Nunavut and Canada. (Guide 7) but there is no section for this in the Draft EIS requirements	No action taken	Sustainability Analysis already outlined in Appendix A and covered in section 2.4
7.6 Impact Assessment Approach				
7.7 Impact Prediction	CNSC	7.7: 1st paragraph: The words "mechanical modeling" seems incorrect and should be replaced with the words "numerical modeling". Including: mathematical or numerical modeling, statistical modeling…	Incorporated suggestions	
	BQCMB	The Proponent should predict impacts on caribou and caribou harvesting that include: direct, indirect, short-term, long-term and cumulative impacts; impacts associated with each Project phase; impacts resulting from accidental effects and malfunctions. The degree of uncertainty and the anticipated response of caribou to predicted impacts should be explained and justified. The Proponent should also be required to provide details on the size or extent of the predicted effects and the statistical power of the predictions.		See section 8.1.13.2

Section	Commenter	Comment	Action	Justification
7.8 Cumulative Effects Assessment	GN	The GN is of the opinion that the cumulative effects assessment requirements of the EIS Guidelines could be strengthened by requesting a more thorough analysis of the potential for future exploration in the Regional Study Area and greater clarity regarding the regulatory requirements associated with potential future development (i.e., requirement for further NIRB reviews). Our reviewers provided the example of transportation infrastructure, which has the potential to cause cumulative effects as it increases accessibility to the land and specifically wildlife habitat, for exploration, harvesting, and other uses. The cumulative effects assessment requirements in the EIS Guidelines could be strengthened by requesting a discussion of how Kiggavik related infrastructure could contribute to cumulative effects, including, but not limited to, how it relates to wildlife and wildlife habitat. The term "longer" temporal scale used in bullet 2 should also be clarified.	Incorporated suggestions	Referenced back to definition of temporal scale and other information will be contained within sections 8.1.13, 8.1.14 and 9.4.16
	Makita	**Failure to acknowledge the 'basin opening' nature of the proposed project**	No action taken	The NIRB's jurisdiction is limited to reviewing the specific project proposal as proposed by AREVA. There is no evidence before the NIRB regarding foreseeable future projects at this time. In the event that this project is followed by other uranium mining project proposals, clearly the question of cumulative effects of the additional mining proposals would be brought before the NIRB and would be considered at that time.
	BQCMB	The guidelines should provide more detail on the spatial and temporal boundaries, as well as on which past, present and reasonably foreseeable projects to include in the CEA.	No action taken	Issues related to caribou are covered in Section 8.1.13
	CARC	The draft guidelines suggest that the CEA should have a *larger spatial boundary (RSA rather than LSA)*. Many northern projects have an RSA that may extend out to 20-50 km from the project footprint. The CEA boundary should incompass a much wider area (hundreds of km, depending on the VEC), in order to assess the project impacts in relation to other activities in the geographical area.	No action taken	
	NTI/KIA	Bullet 7: add "The Proponent shall give due consideration to the potential for cumulative effects that may be transboundary and should not limit the evaluation boundaries to the NSA, especially where migratory species are concerned." to provide clarity on cumulative effects transboundary impacts and project-specific transboundary impacts.	Incorporated suggestion	
	Laura Bowman	Clarify that "reasonably foreseeable" activities in the region includes prospecting and exploration activities including those that are ongoing.	Incorporated suggestion	See Glossary of terms
	Laura Bowman	Clarify that for wildlife, the proponent will need to assess the combined effect of foreseeable future issues such as the impacts on wildlife populations of: climate change (i.e. mobility, food availability); other industrial projects in the area; all components of the project over its lifetime (ie. flights, footprint, radiation, decommissioning). Increased pressures from harvesters and/or predators as a result of the project (ie. for birds the use of predation perches, for caribou increased predator access from linear features).	No action taken	Bullet 3 addressed in 8.1.13.2
	HC	7.8 Cumulative Effects Assessment: Identify any additional uranium exploration or mining/milling projects within the Regional Study Area, along with a discussion of the cumulative impacts of any radiological releases.	Incorporated suggestions	
	INAC	INAC suggests that NIRB consider whether the CEA should also include effects from sources other than other projects or "activities". This includes effects due to climate change, and effects due to natural phenomena.	No action taken	
7.9 Trans-boundary Impacts	Lutselk'e Dene 1st Nation	Appendix A.10 concern with transboundary impacts on environment	Included caribou	

Section	Commenter	Comment	Action	Justification
	BQCMB	Most effects of the Project on caribou will have transboundary impacts if they affect the health of individual animals or the productivity of the herd. These impacts will affect availability of caribou for traditional subsistence and other harvesters in the NWT, Saskatchewan and Manitoba. The EIS should include an assessment of these types of transboundary impacts.	Included extensive migration of land mammals such as caribou.	
	CARC	CARC generally agrees with the NIRB guideline and adds the following. Any project that proposes development in caribou grounds has implications for the Governments of Canada, the Yukon, the Northwest Territories and Nunavut with respect to the Porcupine Caribou Herd calving grounds in the Arctic National Wildlife Refuge in the United States and the Canadian position that no development should occur in calving grounds. The NIRB should stipulate the proponent's agreement with the Canadian position of no development in caribou calving grounds. The proponent's major shareholder is the Government of France.	No action taken	
	NTI/KIA	There is a distinction that needs to be made regarding the transboundary effects of the proposed project, which is primarily related to the transportation of goods, especially uranium concentrate. The scope of the cumulative effects evaluation and appropriate RSA selection should be left to RSA and cumulative effects instructions.	No action taken	
	Athabasca Denesuline	Section 7.9 on Transboundary Impacts, there are specific considerations given to the potential for transboundary impacts associated with marine shipping on marine mammals, and migratory birds; however there is no mention of specific considerations given to impacts on caribou. We would like barren-ground caribou to be considered in this Section.	Incorporated suggestion	
	INAC	INAC suggests that specific consideration be given to transboundary impacts associated with caribou and caribou migration patterns as well as those already listed as needing specific consideration.	Incorporated suggestions	
	EC	Paragraph 2: revise to include seabirds and their habitat in order to reflect that Section 7.2.1 – VEC	Incorporated suggestion	
7.10 Indicators and Criteria	CNSC	7.10: 2nd paragraph: paragraph is unrelated to "indicators and criteria" and seems to indicate all potential impacts are to be included in a Follow-Up Plan. Content in Section 9.7 is more clear. Recommend deleting.	Incorporated suggestions	
7.11 Significant Determination	INAC	In several instances in this section, specifically when discussing assessment of severity of impacts, it is not clear whether the text is referring to residual impacts, after mitigation measures are applied, or predicted impacts before mitigation. Clarification of this would be helpful.	No action taken	Information found in section 9.8
7.12 Certainty				
7.13 Impacts of the Environment on the Project	GN	Suggest examples of the socio-economic regional context to balance the biophysical examples provided	No action taken	
	INAC	In the first paragraph, last sentence, tailings management facility should be added to the list of Project infrastructure that could be affected by the long term impacts of permafrost.	Incorporated suggestion	
	CNSC	7.13: 1st paragraph: When considering impacts of the environment on the project, unfavourable geological conditions such as weak zones and/or faults, direct (ground instability due to permafrost thawing) and indirect impacts (high hydraulic pressure due to permafrost confinement) of permafrost should be included. Reword paragraph.	Incorporated suggestions	
8 Project Environment and Impact Assessment	GN	The GN desires a demonstration of the connectivity between the baseline information and impact assessment sub-sections throughout Section 8.0. It appears that several baseline items are being requested without connection to the requirements within the Impact Assessment sections. In the opinion of several GN reviewers, this lack of connection will make impact prediction and future project monitoring more challenging. As noted previously, it is the GN's expectation that the proponent provide a 'road map' of how the data collected for the baseline was used in the effects assessment and how it will be used to support follow-up and monitoring.	No action taken	
	Makita	**A monitoring system worthy of the land, the people and the wildlife –** call for a general monitoring system	No action taken	
	CNSC	8: 1st paragraph: Need to ensure Guidelines refer to predicted effects, as opposed to implying that effects will occur. Insert predicted or potential in front of effects. Related to CNSC's p. 40 comment (re: Conceptual Site Model text), guidance on human health and environmental risk assessment should be provided somewhere in the Guidelines. Add new subsection: Human Health and Environmental Risk Assessment.	Incorporated suggestions	New section added to EIS Guidelines
8.1 Biophysical	NTI/KIA	The baseline should also comment on trends and how the environment is expected to change over the life of the project. Add "Baseline summaries should also include trends and how the environment is expected to change over the life of the Project".	Incorporated suggestion	
	CNSC	8.1: 1st paragraph: The specific term "Conceptual Site Model" should be mentioned in support of an ecological and human health risk assessment so that reviewers are provided with a clear presentation of the many complex processes that will be addressed throughout several documents.	Incorporated suggestions	
	CNSC	8.1: 1st paragraph: The importance of the requirement to describe baseline radiological conditions must be emphasized at the outset. (An alternative	Incorporated	

Section	Commenter	Comment	Action	Justification
		is to subsection e.g. air quality, geology, etc.). Consider modifying the first paragraph.	suggestions	
	Laura Bowman	This section needs a greater emphasis on qualitative and quantitative evaluations. Quantitative evaluations should be specifically required for issues like climate, wildlife populations, water quality and quantity, employment, health, infrastructure and socioeconomic impacts. Quantitative evaluations help provide objective information regarding impacts that are distinct from the proponent's own qualitative assessment of those impacts.	No action taken	Covered in each section under Section 8.0
	HC	Radiological Effects: HC notes that the Draft EIS Guidelines are missing information necessary to address the assessment of radiation in the environment and potential impacts of predicted radiation doses on the human health of both workers and the public. HC advises the EIS contain information on radiation in the environment, including: a baseline description of the radiation levels in the environment; any anticipated radiation releases to the environment as a result of the project; and a complete pathways analysis and human health risk assessment (HHRA), an example of which can be found in Canadian Standards Association document N288.1 (CSA 2008). The HHRA should contain an estimate of doses to workers and to the public, and the doses should be demonstrated to be below regulated dose limits (refer to limits in the Radiation Protection Regulations of the Nuclear Safety and Control Act (2000), accessible at http://laws.justice.gc.ca/eng/sor-2000-203/page-1.html). HC advice with respect to radiological effects on human health for specific sections of the Draft EIS Guidelines follows.	Some points incorporated re baseline environmental radiation levels	
	HC	Contamination of Country Foods The potential contamination of country foods as a result of project activities is referred to in multiple locations within the Draft EIS Guidelines (e.g. in Section 8.1, Biophysical Environment and Impact Assessment: subsections 8.1.9 Vegetation; 8.1.10 Freshwater Aquatic Environment; 8.1.12 Marine Wildlife and Marine Habitat; and 8.1.13 Terrestrial Wildlife and Wildlife Habitat; and in subsection 8.2.11 Human Health and Well-being). HC advises that the consideration of the potential for contamination of country foods and the discussion of effects on human health be consolidated into a single section within the Draft EIS Guidelines. This format would facilitate the review of potential human health effects due to contamination of country foods. HC advises consulting the Contamination of Country Foods section of the attached guidance document for additional details on conducting an assessment of the potential for contamination of country foods.	No action taken	
	INAC	Some sub-sections, notably 8.1.2 and 8.1.3, request that the Proponent provide a discussion of what standards, guidelines and regulations will be met, but do not clearly request that predicted changes in to baseline levels be discussed. Although standards and guidelines are important, they do not provide a complete assessment of impacts. INAC recommends that it be made more clear that predicted changes to baseline levels should be assessed. Furthermore, INAC recommends that a section to assess likelihood and potential impacts of possible accidents and malfunctions should be included somewhere in the Guidelines. A sub-section in Section 8.1 seems appropriate.	No action taken	
	INAC	Section 8.1- 8.2: Biophysical Environment, Socio-Economic: Environment and Impact Assessment In regards to the presentation of potential impacts on the biophysical and socioeconomic environment, this section would benefit from requiring a treatment and presentation of the temporal aspects of when potential impacts on each relevant VEC and VSEC could reasonably be expected to manifest (i.e. what are the potential impacts of the project on VSEC X 30 years from each phase in the project). The addition of this information in the impact assessment section to each VSEC and VEC would be complementary to Section 5.4.2 Temporal Boundaries of the draft guidelines.	No action taken	
	GN	Section 8.1.1.1 Baseline Information: Bullet # 5 should be reformulated to tie it to the project: "Impacts from climate change on sensitive ecosystem features within the terrestrial and marine ecosystems that stand to be exacerbated by this project and its associated activities and/or affect this project and its associated activities".	No action taken	
	GN	Section 8.1.1.2 Impact Assessment: Should specifically address "current and projected climate conditions" and should provide a more detailed list of project components that may be affected. Bullet # 3 should state "…based on best available scenarios for the region…"	Incorporated suggestions	
	INAC	8.1.1.2: Bullet number two, consider including freezing rain/ice events in the list of meteorological events that may impact the project, as this may impact air freight schedules. Bullet number five, tailings management facility should be added to the list of project components that could be impacted by the potential effects of climate change and permafrost thawing.	Incorporated suggestions	
8.1.1 Climate	NTI/KIA	8.1.1.2: Drop the word "condition" after climate in the first sentence.	Incorporated suggestions	
	CNSC	8.1.1.1: bullet 3: It is important to refer to site specific data, as this information is more accurate, would be used for calculations and is an input to modeling. Add to the bullet - including site-specific data	Incorporated suggestions	
	CNSC	8.1.2.1: bullet 3: There is no indication of what parameters are to be presented. Predictions of principal pollution emissions sources and emission rates of both radiological and non-radiological emissions from the Project….	Incorporated suggestions	
	CNSC	8.1.2.1: bullet 3: This bullet refers to predictions and is therefore not part of baseline data collection. Move 3rd bullet (and all sub-bullets) to 8.1.2.2.	Incorporated suggestions	

Section	Commenter	Comment	Action	Justification
	CNSC	8.1.2.1: bullet 3 sub-bullet 2: Gaseous emissions, including radon, should be included in the baseline characterization of air quality 2nd sub-bullet under the 3rd bullet should read "Fugitive dust and gaseous (i.e. radon) emissions from ore processing, handling, tailings, waste rock and ore stockpiling, quarries and other Project components and works;	Incorporated suggestions	
	CNSC	8.1.2.2: bullet 2: Ozone should be added to the list. Assessment of effects….carbon monoxide (CO), ozone (O3),……..	Incorporated suggestions	
	CNSC	8.1.2.2: bullet 7: PM-10 and PM-2.5 should be also be included. Insert "the PM-10 and PM-2.5" after "the TSP,…"	Incorporated suggestions	
	CNSC	8.1.2.2: last bullet: There is no reason of considering blasting as a separate entity. It is an emission source and should be considered in the source table. Incineration is discussed and should be included as an emission source also. Delete the last bullet.	Incorporated suggestions	
	INAC	Under the third bullet, second sub bullet, INAC recommends adding the words “extraction and” immediately after the word “ore”, to encompass potential impacts from the entire process.	Incorporated suggestions	
	INAC	**Relevant Project Components:** There appears to be various references to ‘iron-ore’ throughout the document (e.g. p. 42, 48, 67, 69, 70), as well as references to ice-breaking shipping (e.g. p.53, 74) idling trains (e.g. p.42), ballast transfer, etc. INAC recommends that these instances be modified to reflect appropriate relevance to the Kiggavik project.	Incorporated some of the suggestions	Reference to ‘iron-ore’ and idling trains removed from the document. Reference to ice-breaking and ballast transfer left in document. Potential for ice-breaking activities to occur. Potential for ballast transfer to occur for proposed ocean-going vessels, tugs and barges.
8.1.2 Air Quality	BQCMB	**8.1.2. Air Quality, 8.1.10 Freshwater Aquatic Environment:** The guidelines should instruct the Proponent to provide information about predictions for emission sources and rates, specifically for dust, including extremely fine particulate dust, radioactive dust and radon. Assessment of potential impacts on caribou, caribou habitat and caribou harvesters should involve airborne dust and any other sources of contaminants that will be deposited on lichen and other vegetation important in the diet of caribou, as well as on water bodies likely to serve as drinking water for caribou.	Incorporated some of the suggestions	Most of the information already present
	HC	8.1.2 Air quality 8.1.2.2 Impact Assessment: Include a discussion of the potential effects of changes in air quality on human health.	Incorporated suggestions	
	NRCan	8.1.2.2 remove references to “fine iron ore”, “iron ore fines stockpile” and “off grade iron ore”	Reference removed	
	EC	8.1.2.2: Bullet 7: revise “fine iron ore” with “concentrate”.	Reference removed	
	GN	Given that certain types of land/vegetation are sought and frequented by wildlife, an analysis of impacts on available habitat should be carried out and should include the identification of specific habitats throughout the study areas such as fens, eskers, etc. Further, the effects of habitat alteration or loss on wildlife survival should be explicitly identified and discussed.	No action taken	Discussed in Vegetation section
8.1.3 Noise and Vibration	CNSC	8.1.3.1: bullet 4: This bullet refers to predictions and is therefore not part of baseline data collection. Move 4th bullet to 8.1.3.2.	Incorporated suggestions	
8.1.4 Geology	CNSC	8.1.4.1: bullets: Description of baseline information is incomplete and the wording used for some bullets is not clear and could cause confusion. This section should be re-written.	Incorporated suggestions	
	CNSC	8.1.4.2: bullet 1: Risk associated with underground excavation should be considered, which not only pose risks to worker's safety but may also cause adverse environmental effects. The assessment should be supplemented by analysis, in addition to illustrations. Suggested edits.	Incorporated suggestions	
8.1.5 Hydrology and hydrogeology	INAC	These sections are exceptionally similar. Thought should be given to amalgamating or further differentiating these sections to reduce duplication.	No action taken	
	CNSC	8.5.1.1: bullets: Groundwater flow models are important for this project – important to identify gaps in field data, predict transport processes etc. Add bullet: A conceptual and numerical hydrogeologic model that discusses the hydrostratigraphy and groundwater flow systems should be presented.	Incorporated suggestions	
	CNSC	8.5.1.1: bullets: Hydrogeology is influenced by the hydraulic properties of faults. Add bullet: Characterization of faults and fractures within the mine area, including information about occurrence, hydraulic conductivity testing and interpretation.	Incorporated suggestions	
8.1.6 Groundwater	GN	*Section 8.1.6.2 Impact Assessment:* Potential impacts should include those as a result of traffic over frozen lakes/streams with consideration for	No action taken	

Section	Commenter	Comment	Action	Justification
and Surface Water Quality		possible spills.		
	HC	8.1.6 Groundwater and Surface Water Quality: 8.1.6.1 Baseline Information: Identify all sources of drinking water (surface and groundwater), as well as water used for recreational purposes, within the area of influence of the project. Provide baseline levels of contaminants and radionuclides including U-238, Th-230, Ra-226, Rn-222, and Pb-210 measured in groundwater and surface water	Incorporated suggestions	
	HC	8.1.6.2 Impact Assessment: Provide predicted increases in contaminants and radionuclides in groundwater and surface water as a result of the project, specifically identifying any water bodies used as drinking water sources or for recreational purposes. For any water sources identified as being current or future drinking water sources, compare concentrations of contaminants including radionuclides to relevant territorial drinking water standards/guidelines and/or the Health Canada Drinking Water Guidelines (2010).	Incorporated suggestions	
	HC	HC advises consulting the Air Quality Effects section of the attached guidance document in the comments for additional details on conducting an assessment of air quality.	No action taken	
	CNSC	8.1.6: title: Section 8.1.6 Groundwater and Surface Water Quality: Groundwater and Surface Water Quality should be assessed in different sections. Exposure pathways of contaminants to groundwater and surface water are different, and they are usually assessed with different models. Recommend separating 8.1.6 into two separate sections:	No action taken	
	CNSC	8.1.6.1: bullets Sections from "groundwater quality and surface water quality" should be moved to "Hydrology and hydrogeology" section. Move bullets 2, 3, 4 from section	Incorporated suggestions	
	CNSC	8.1.6.1 to section 8.1.5.1; move bullets 1 and 2 from section 8.1.6.2 to section 8.1.5.2.	Incorporated suggestions	
	CNSC	8.1.6.1: bullets: Natural geochemistry should be included as part of the ground water baseline quality characterization. Isotopic compositions are also important for this project – providing information about blow paths (e.g. mixing etc.). Add bullet: Natural hydrogeochemistry of groundwater system (pH, redox, TDS, isotopic composition).	Incorporated suggestions	
	CNSC	8.1.6.1: bullet 1: Physical and chemical characteristics of sediment should be included in the baseline information section. 1st bullet should read "Description of the physical and chemical characteristics of surface water, groundwater and sediment in the LSA, with discussion of seasonal variations in water flow and quality."	Incorporated suggestions	
	CNSC	8.1.6.2: bullet 4: Potential impacts from effluent discharges from the wastewater treatment plant on sediment quality of lakes and rivers should be included in the assessment. 4th bullet should read "Potential impacts on water and sediment quality of lakes and rivers from discharges of project wastewater treatment plants."	Incorporated suggestions	
	CNSC	8.1.6.2: bullet 5: Potential impacts from ARD and ML on sediment quality of lakes and rivers should be included in the assessment. 5th bullet should read "Potential impacts on water and sediment quality from ARD and ML resulting from waste rock stockpiles, ore stockpiles, open pit dewatering, construction fills, embankment of roads, and open quarry sites."	Incorporated suggestions	
	CNSC	8.1.6.2: bullets: Fractures and faults can have a major impact on contaminant transport processes in the subsurface. Add bullet: Potential impacts of faults on contaminant transport processes in the subsurface and surface water.	Incorporated suggestions	
	CNSC	8.1.6.2: bullet 3: Solute transport from mine waste facilities should be linked to groundwater flow model. Suggest adding to 3rd bullet: A solute transport model based on numerical groundwater flow modelling should be used for water quality predictions.	Incorporated suggestions	
	CNSC	8.1.6.2: bullet 6: Potential impacts on sediment quality should be considered from surface disturbances. 6th bullet should read "Potential impacts of erosion associated with the all-weather road on surface water and sediment quality as a result of vegetation removal, cuts/fills and other surface disturbances."	Incorporated suggestions	
	EC	8.1.6.2: Bullet 4: revise to "Potential impacts on water **and sediment** quality of lakes and rivers from discharges of Project wastewater treatment plants, including detailed modeling of the extent of changes;"	No action taken	See new section for sediment quality
	EC	8.1.6.2: bullet 6: revise to "Potential impacts on **sediment and** surface water quality…"	No action taken	See new section for sediment quality
	EC	8.1.6.2: bullet 9: revise to "Potential impacts to **sediment and** surface water quality…"	No action taken	See new section for sediment quality
8.1.7 Terrestrial Environment	GN	*Section 8.1.7.2 Impact Assessment:* The potential contamination of soils as a result of spills should also be considered.	Incorporated suggestions	

Section	Commenter	Comment	Action	Justification
	HC	8.1.7 Terrestrial Environment : Add bullets: - Measure and provide baseline radiation levels. - Provide predicted changes in radiation levels as a result of the project.	Incorporated suggestions	
	NRCan	8.1.7.1: Baseline Information bullet 5: suggest replacing "for ground and rock instability" by "of geohazards, that may potentially affect the project or which occurrence may potentially be affected by the project. It is also suggested to add "seismic hazards" after "slippage"; while this is already mentioned on page 66 under section 9.4.1 Risk Management and Emergency Response Plan, it should not only be addressed in a management plan but also in project design.	Incorporated suggestions	
	CNSC	8.1.7.2: bullet 1: Landforms serving as plant habitat should also be considered in the Impact Assessment. "Discussion of the general impact on landforms in the LSA as a result of Project development, borrow resources extraction, with a focus on sensitive landforms, and those serving as **important plant** and wildlife habitat."	Incorporated suggestions	
	CNSC	8.1.7.2: bullet 5: The potential impact to soil quality should also be included in the impact assessment. 5th bullet should read "**Discussion of the potential impacts to soil quality from compaction and the** deposition of air emissions and airborne fugitive dust emissions from the Project"	Incorporated suggestions	
	CNSC	8.1.7.2: bullet 2: Aesthetics are a human interpretation - as this section has to do with the physical characteristics of the environment, recommend moving reference to aesthetics to socio-economic subsection. Move 2nd half of bullet to 8.2.8 (Land use) or other suitable socio-economic subsection.	Incorporated suggestions	
8.1.8 Permafrost and Ground Stability	CNSC	8.1.8.1: bullets: The thermal properties of permafrost (sols and rocks) are important data for predicting permafrost evolution during the life cycle of the project or predicting permafrost degradation due to mining disturbances. Add new bullet.	Incorporated suggestions	
	CNSC	8.1.8.2: bullet 1: This bullet is not stated clearly and creates confusion. It should be revised.	Incorporated suggestions	
	CNSC	8.1.8.2: bullets: Excavation of open pits and disposal of tailings and special waste rock into open pits will cause degradation of the permafrost below. Thawing of permafrost will impact the underground water flow and contaminant transport. Permafrost degradation beneath the tailings facilities should be assessed with the support of numerical modelling. Add new bullet after first bullet.	Incorporated suggestions	
	NRCan	8.1.8.2: Impact Assessment bullet 1: suggest adding "mine pit creation" before "cuts/fills".	Incorporated suggestions	
8.1.9 Vegetation	CNSC	8.1.9.1: bullet 5: Baseline information on species that are not often consumed by people but are indicators of environmental contamination or are critical diet items in food chains at higher trophic levels should be mentioned. Add "and other vegetation that reflects sensitivity to contaminants or environmental pathways of exposure and biomagnification"	Incorporated suggestions	
	CNSC	8.1.9.1 (and 7.1): bullet 5: The proponent should be given direction to fill a significant data gapthat is critical to this assessment. This gap is the paucity of relevant information on U-238 series radionuclides in all biota in the north, along with a similar lack of useful information for contaminants such as Mo and Se that are typically missed in northern contaminant surveys. It is not sufficient to simply identify this as a data gap during the assessment and then rely on models and extrapolations from other environments to make predictions of future impacts. Although mentioned in this section, this is actually a high level issue that should be addressed first in section 7.1 on baseline data collection with a generic statement such as "As a critical data gap, comprehensive information on biota tissue concentrations of U-238 series radionuclides and other contaminants of specific interest in uranium mining (e.g. Se, Mo) should be collected"	Incorporated suggestions	Incorporated in Section 7.1
	CNSC	8.1.9.1: bullet 5: The implications of vegetation contaminants and its implication for the health of wildlife consuming the vegetation should also be considered. 5th bullet should be rewritten.	Incorporated suggestions	
	CNSC	8.1.9.1: bullet 5: Odd descriptor at end of bullet: "known to Inuit". What if unknown to Inuit but still culturally valuable? What if culturally valuable to residents of Nunavut that are non-Inuit? If culturally significant to northerners was implied, could this be used instead? Potentially change the bullet.	Incorporated suggestions	
	CNSC	8.1.9.2: bullet 7: The potential impacts of soil quality (both physical changes to soil structure and chemical changes due to deposition of contaminants) due to the Project should be included in the impact assessment. 7th bullet should be rewritten.	Incorporated suggestions	
	CNSC	8.1.9.2: bullet 8: Impacts to wildlife health due to vegetation consumption should also be considered. 8th bullet should be rewritten.	Incorporated suggestions	
	HC	8.1.9 Vegetation - Estimate radiation levels for any vegetation (e.g. country foods such as traditional plants, berries, medicinal plants) that may be consumed by local human populations.	Already covered in 8.1.9.2 bullet 8	
	NRCan	8.1.9.2: remove references to "fine iron ore", "iron ore fines stockpile" and "off grade iron ore"	Reference removed	
	EC	8.1.9.2: bullet 7: replace "fine iron ore" with "concentrate"	Reference removed	
8.1.10 Freshwater	DFO	DFO suggests revising bullet 2 of section 8.1.10.2 and adding a new bullet to this section.	Incorporated	

Section	Commenter	Comment	Action	Justification
Aquatic Environment			suggestions	
	EC	8.1.10.2: bullet1: replace “toxin” with “contaminant” or other appropriate term to ensure that major ions are evaluated; they may not be considered a toxin.	Incorporated suggestions	
	CNSC	8.1.10.1: bullet 2: Benthic invertebrates and macrophytes should be included as part of the biological composition of freshwater aquatic environments in the LSA. 2nd bullet should be rewritten	Incorporated suggestions	
	CNSC	8.1.10.2: bullet 1: Potential impacts to aquatic macrophytes should be considered due to their important ecological role in the food chain. 1st sentence of the 1st bullet should be rewritten.	Incorporated suggestions	
	CNSC	8.1.10.2: bullet 6: Quantitative assessment of ecological risks to freshwater VECs resulting from the loading of contaminants to aquatic environment should be assessed. 6th bullet should be rewritten.	Incorporated suggestions	
	HC	8.1.10 Freshwater Aquatic Environment. Add bullet: Estimate radiation levels for any freshwater biota that may be consumed by local human populations.	8.1.10.2 bullet 7	
8.1.11 Marine Environment	CNSC	8.1.11.1: bullet 4: Sensitive habitat areas for marine and anadromous fish should be included in the assessment. 4th bullet should read “Identification of sensitive habitat areas for marine fish, anadromous fish and marine mammals along the shipping routes; and”	Incorporated suggestions	
	CNSC	8.1.11 and 8.1.12 bullets: Potential impacts to marine habitat and marine mammals were listed in both Section 8.1.11 Marine Environment and Section 8.1.12 Marine Wildlife and Marine Habitat. For clarity, they could be separated. Section 8.1.11 could focus on marine environment, aquatic biota and marine habitat, while Section 8.1.12 could focus on marine wildlife.	No action taken	
	EC	8.1.11.2: bullet 7: revise “bio accumulation” to “bio-accumulation”	Incorporated suggestion	
	GN	*Section 8.1.11.1 baseline Information:* Should include a description of currents in addition to marine physical processes.	Incorporated suggestions	
	GN	*Sections 8.1.11 Marine Environment & 8.1.12 Marine Wildlife and Marine Habitat Should* include a discussion of Chesterfield Inlet in relation to the marine environment, marine wildlife, and marine habitat.	No action taken	
	NRCan	8.1.11.2 add a bullet with “Potential impacts of climate change and sea level change on project elements”.	Incorporated suggestions	
8.1.12 Marine Wildlife and Marine Habitat	NTI/KIA	8.1.12.2: Remove “Potential socio-economic impacts from shipping… Local residents rely on as food sources” and move to 8.3.2 as the requirement better fits this section.	Incorporated suggestions	
	GN	With specific reference to the wildlife species under the jurisdiction of the GN, the GN wildlife experts indicated that the availability of adequate habitat for wildlife has a direct effect on their survival. Given that certain types of land/vegetation are sought and frequented by wildlife, an analysis of impacts on available habitat should be carried out and should include the identification of specific habitats throughout the study areas such as fens, eskers, etc. Further, the effects of habitat alteration or loss on wildlife survival should be explicitly identified and discussed.	No action taken	Covered in section 8.1.9
	GN	The GN wildlife experts indicate that there is potential for project infrastructure to alter behavioural patterns of wildlife. Transportation corridors may affect the movement of wildlife and are known to be frequently utilized by carnivores. As a result, the GN is concerned that predator-prey interactions may be altered leading to increased wildlife mortality and changes in wildlife populations. The EIS Guidelines should request that the proponent describe and assess the potential for changes in these interactions and resulting impacts.	No action taken	Covered in section 8.1.13.2
	HC	8.1.12 Marine Wildlife and Marine Habitat - Estimate radiation levels for any marine wildlife that may be consumed by local human populations.	No action taken	Covered in section 8.1.11.2 bullet 7
8.1.13 Terrestrial Wildlife and Wildlife Habitat	BQCMB	A key part of the EIS must be an in-depth assessment and explanation by the Proponent of the following (*bullets provided*) aspects of their proposal for Nunavut’s first uranium project:	No action taken	Covered in Section 8.1.13.2
	BQCMB	The implications for the current and future well-being of caribou and Aboriginal and other caribou harvesters across the caribou ranges should be unambiguously assessed and clearly explained. The results of the various assessments required to address these major questions for caribou and caribou harvesters (related to impact assessment, risk management, hazardous materials management, mitigation and residual impacts) should be presented together and easily located in the EIS. They should not be scattered throughout the report or buried in the enormous amount of detail that will be produced for the EIS and its numerous supporting documents.	No action taken	
	BQCMB	8.1.13 Terrestrial Wildlife and Habitat: In addition to baseline information outlined in the draft guidelines, the Proponent should be instructed to provide details regarding available information of relevance to caribou.	No action taken	Bullets requested covered in Section 8.1.13.2

Section	Commenter	Comment	Action	Justification
	CARC	8.1.13.1 Baseline Information: NIRB specifically mentions, "*Details regarding available information on potential impacts to wildlife associated with noise and vibrations, from relevant scientific research and TK*", dust and dust deposition should be added to this list (particularly as related to caribou). Dust fall is mentioned in the impact assessment section. In addition to "*Discussion of the relative health of the VEC populations, including contaminant loading in representative wildlife VEC species, for example caribou"*, NIRB should specify that contaminant loading in the lichen-caribou-wolf/human food chain should be presented and discussed.	No action taken	
	CNSC	8.1.13.1: bullet 3: The comment on "associated food chain relationships" needs to provide a few relevant examples so that important topics specific to sensitive species and northern environments are not missed.	Incorporated suggestions	
	CNSC	8.1.13.2: last bullet: The last bullet should be augmented with more details on issues that could arise during the assessment; specifically the proponent should be given direction to take a rigorous scientific approach to address sensitive species and pathways where toxicity may occur.	Incorporated suggestions	
	GN	*Section 8.1.13.2 Impact Assessment:* Should address the potential for bioaccumulation and biomagnification of contaminants	No action taken	Covered in several sections throughout 8.1 and all management plans.
	HC	8.1.13 Terrestrial Wildlife and Wildlife Habitat Add bullet: Estimate radiation levels for any terrestrial wildlife that may be consumed by local human populations.	No action taken	Covered in Section 8.1.13.2
8.1.14 Birds	NTI/KIA	8.1.14.1: Drop the last bullet. This subject has already been covered earlier and doesn't need to be repeated here.	Incorporated suggestion	
	NTI/KIA	8.1.14.1: Delete 'based on available data'. NIRB has already explained its requirements for currency and quality of data in the Methodology section. No need to repeat here.	Incorporated suggestions	
	EC	8.1.4.2: Bullet 1: revise wording to clarify that Species at Risk refers to those species listed on Schedule 1 of the federal Species at Risk Act (SARA)	Incorporated suggestion	
	EC	8.1.4.2: bullet 6: add grizzly bear and wolverine to the list of wildlife potentially attracted to project facilities.	Incorporated suggestion	
	EC	8.1.4.2: bullet 7: this bullet could be revised to include other scavengers/predators such as those listed in bullet 6 that are also attracted by domestic wastes: "Potential attraction of birds and other scavengers/predators by domestic waste at camp sites."	Incorporated suggestion	
	EC	The following bullets should also be added to impact assessment for birds: 1. Potential attraction of birds to Project facilities and infrastructure for roosting and nesting sites. 2. Potential for bird mortality due to collisions with tall structures or overhead wires.	Incorporated suggestion	
	HC	8.1.14 Birds - Estimate radiation levels for any birds that may be consumed by local human populations.	Incorporated suggestion	
8.2 Socioeconomic Environment	GN	*Section 8.2 Socio-economic Environment:* In the second paragraph the statement "This is not meant to suggest that the Proponent is responsible for the current socio-economic situation in the Kivalliq region or of Nunavut…" should be removed, since it adds bias.	No action taken	
	INAC	INAC recommends clarifying the approach to socio-economic impact assessment being requested in the DEIS for the Kiggavik project. It is stated in Section 8.2 that "*socio-economic …impacts*" (p. 55), INAC would like to note that it is pertinent to ensure clarity, precision, relevance and cohesiveness between the baseline information being requested herein and the associated potential impacts which will be presented in the DEIS. INAC recommends that Section 8.2 adequately reflect this approach through clear linkages between baseline information requested under each VSEC and the associated measures/indicators upon which potential impacts will be assessed and ultimately measured in the future through monitoring and evaluation (i.e. referred to under section 9.5).	No action taken	
	BQCMB	The BQCMB supports inclusion of guidelines that address ways that impacts of the Project on caribou may affect food security, self-reliance, traditional land use, human health and cultural well-being. Guidelines for describing baseline information and assessing impacts should be applied by the Proponent as they relate to caribou and caribou harvesters as outlined in sections 8.2.3, 8.2.5, 8.2.8, 8.2.11, and 8.2.12.	No action taken	Already present in section
	BQCMB	Aspects considered should include the importance of subsistence caribou harvesting, sustainable use of caribou, and the cultural and social activities associated with hunting caribou (such as community feasts and making arts and crafts) to maintenance of Aboriginal people's traditional way of life.	Incorporated suggestions	Added in section 8.2.3
	BQCMB	Socio-economic assessments related to Impacts of the Project on caribou should be conducted not just for Inuit harvesters in Nunavut, but also for other Aboriginal traditional harvesters across the caribou ranges, including those in the NWT, Saskatchewan and Manitoba.	No action taken	
8.2.1 Population Demographics	NTI/KIA	8.2.1.2: Add bullet: "Discussion of culturally-sensitive workforce management practices that will meet both the Project's immediate labour force needs as well as the region's longer-term economic development needs."	Incorporated suggestion	

Section	Commenter	Comment	Action	Justification
	NTI/KIA	8.2.1.2: Discussion of the commuting arrangements: Bullet 5: add reference to in-community support for fly-in/fly-out workers to aid with logistics of departing workers and re-integration of returning workers. Guidelines' Project Environmental and Impact Assessment Section sub-section 8.2.4 Employment requires a discussion of commuting arrangements but do not specifically reference a discussion around the proponent's plan to support the fly-in/fly-out workforce with in-community liaison workers.	Incorporated suggestions	Added to Section 8.2.4.2
	NTI/KIA	Add to bullet #2: number and types of jobs to be filled by Kivalliq residents, other Nunavut residents and other Canadians	No action taken	
	GN	*Section 8.2.1.1 Baseline Information:* Edit the 3rd bullet point (pg. 55) to read "…religious *characteristics*…"	Incorporated suggestions	
8.2.2 Education and Training	NTI/KIA	Bullet 1: Remove "early childhood" and replace with "secondary". While there is merit for looking at the education system and trends from early childhood through post-secondary, this is really the purview of government.	Incorporated suggestions	
	NTI/KIA	8.2.2.2: Impact assessment – second and third bullet: suggest deleting bullets entirely. Requirement for training needs and training program details already captured in first bullet.	No action taken	
	NTI/KIA	8.2.2.2: Bullet 5: Discussion of other possible solutions to fill the gap between requirements of project needs, and education level and qualifications of local labour force. The assumptions about the content of the IIBA are not relevant to these Guidelines.	Incorporated suggestions	
	GN	*Section 8.2.2 Education and Training:* Link baseline data requirements to the impact assessment requirements more directly. Moreover, the proponent should be requested to outline its plans for meeting any direct or indirect demands on educational infrastructure and programs.	No action taken	Covered in section 8.2.2.2
8.2.3 Livelihood and Food Security	NTI/KIA	8.2.3.1 and 8.2.3.2: Add potential changes in the traditional way of life due to employment at the mine. The baseline information required is inconsistent with the impact assessment questions.	Incorporated suggestion	
	CNSC	8.2.3.2: bullet 2: Implies contaminants will rise. Need to indicate "potential". Reword bullet 2 as "Potential effects to loss of traditional way of life from potential increased levels of contaminants in traditional foods"	Incorporated suggestions	
	CNSC	8.2.3.2: bullet 1: first part of the sentence already covered in 8.1.13.2. To avoid duplication, recommend only using wording related to livelihood and food security. Reword bullet 1 as "Effects of the Project on harvesting"	Incorporated suggestions	
8.2.4 Employment	NTI/KIA	Change title to "Labour Supply" and move all labour supply questions to here. Include an evaluation of reasons for not being employed, structural unemployment and functional unemployment. Employment is what the Proponent offers and all aspects of Employment should be discussed under 6.0 Project Components.	No action taken	
	NTI/KIA	8.2.4.2: All labour force impact under 8.2.2.2 should be moved here. Labour force is linked to training, skills and demographics. For ease of review, it may be easier to keep the labour force discussions in one location.	No action taken	
	GN	*Section 8.2.4 Employment:* As mentioned previously, in order for the GN to understand the social and economic effects of the project, additional information is required regarding the anticipated employment demands or structure of the project. The impact assessment for employment should require the proponent to provide quantitative estimates of the person years this project will create in employment, how many of these person years will be supplied by Nunavut residents and how many of these person years will be supplied by transient workers.	No action taken	
8.2.5 Economic Development and Self-reliance	GN	*Section 8.2.5.2 Impact Assessment:* Bullet 1 on the positive and negative impact on the local economy should include a discussion on the implications of the project on economic diversity in Nunavut.	Incorporated suggestions	
	GN	*Section 8.2.5 Economic Development and Self-reliance:* The GN reviewers have indicated that the requirements for an evaluation on the effect of the project on Nunavut's economy are sparse and vague. The GN requests that the EIS Guidelines require the proponent to provide best estimates of the effects of the project on Nunavut's: Real Gross Domestic Product; rate of GDP growth; Consumer Price Index; import/export and trade balance of goods; personal savings rate; and business investment.	No action taken	Found in section 7.2.2
	CNSC	8.2.5.2: 6TH BULLET: Clarity of language and suggested movement of content. Reword as two bullets: "Disruption to ice travel routes caused by shipping through land fast ice and development of new near and distant cracks; "Impacts to users of ice travel routes, including safety concerns as a result of new tracks". 2nd bullet above should now go into 8.2.8 (Land Use) or some other section implying safety/health concerns.	Incorporated suggestions	
8.2.6 Community Infrastructure and Public Services	GN	*Section 8.2.6.2 Impact Assessment:* Bullet 2 on the evaluation of the effect on services and /or infrastructure should include the consideration of impacts on the availability of housing and the ability to supply housing required to meet the direct and indirect needs of the project within RSA communities.	Incorporated suggestion	
8.2.7 Contracting and Business Opportunities				

Section	Commenter	Comment	Action	Justification
8.2.8 Land Use	GN	*Section 8.2.8 Land Use:* Include the heading 8.2.8.1 Baseline Information (this is missing) and revise Impact Assessment as section 8.2.8.2 (to remain consistent throughout the document).	Incorporated suggestions	
8.2.9 Benefits, Royalty and Taxation	NTI/KIA	The NTI and the KIA acknowledge the interest in the content of the IIBA (Guidelines Section 8.2.9 Benefits, Royalty and Taxation). We accept the presentation of a summary of the Draft IIBA outside of confidential financial figures. However, we have concerns where assumptions are being made about the IIBA content in the Guidelines. Bullets three and four under 8.2.9 exceed what the NIRB requires for its evaluation of effects and assume IIBA content. The Guidelines should be focused on the effect of the project and ensuring that the evaluation provides the NIRB with the information it needs to understand the effects, and not comment or make assumptions about IIBA content. The IIBA content will be negotiated in due course and it is in the interests of all parties that the socio-economic provisions of the EIS not be confused with the IIBA requirements mandated under the NLCA.	Incorporated suggestions	
	NTI/KIA	8.2.9: Suggested revised text: "The Proponent shall provide a summary of the draft IIBA exclusive of the financial commitments being negotiated." Shipping concerns from outside the NSA are not relevant to the EIS' IIBA discussion.	Incorporated suggestions	
	GN	Section 8.2.9 Benefits, Royalties and Taxation: GN reviewers note that an evaluation of the benefits from increasing revenues through taxation is mentioned in 8.2.9. However, there is no requirement to evaluate and describe the project's estimated expenditures on taxation. The GN requests reasonable estimates of AREVA's estimated expenses on taxes, which jurisdiction will be receiving tax benefits and the magnitude of those benefits. Similarly, the GN requests reasonable estimates of the royalties to be paid, which jurisdiction would receive royalties and the magnitude or those royalties. The EIS Guidelines should request the proponent to provide reasonable estimates of the amount of fuel to be purchased in Nunavut or imported into Nunavut. The GN would encourage a discussion on how the proponent would facilitate cooperation among various parties who are responsible for ensure benefits accrue to local and/or Inuit residents.	No action taken	
	GN	Second last bullet: the DPA is a voluntary agreement between the GN and the proponent, and while NIRB can encourage, informally, this partnership agreement, it is a partnership between GN and the proponent. The place for discussion on the DPA is not in a regulatory-based document.	No action taken	
8.2.10 Governance and Leadership	NTI/KIA	8.2.10: drop the entire section. Except for the contribution of the Project to the local economy, this section is not relevant to the impact assessment.	No action taken	This section does go to ensuring the management and financial capacity of the proponent to carry out the project as proposed.
8.2.11 Human Health and Well-being	NTI/KIA	8.2.11.1: Delete reference to RSA throughout this section. It is redundant. The Guidelines already discuss LSA and RSA and what is required.	No action taken	
	GN	*Section 8.2.11.1 Baseline Information:* Given the nature of the project, the GN wishes to ensure that the description of the current status of human health in the RSA requested in the draft EIS Guidelines will identify vulnerable sub-groups within the population, and include the consideration of human exposure to current environmental contamination.	No action taken	Covered under section 8.2.11.2
	GN	*Section 8.2.11.2 Impact Assessment* The GN reviewers note that the undersupply of health infrastructure in the RSA may significantly increase health risks to residents. While the baseline information requirements contained in the draft EIS Guidelines include the description of the existing infrastructure and health services available within the RSA and nutritional requirements and diet habits of residents; there are no corresponding requirements in the EIS Guideline to assess the impacts of the project on these elements.	No action taken	Covered in section 8.2.6.2
	GN	GN reviewers request that the assessment also consider implications of these effects on the variety of health and social services available in the RSA communities. A description of the proponent's policies, programs and other mitigation measures is required with respect to the full range of health issues and impacts on existing infrastructure, programs and services.	No action taken	
	CNSC	8.2.11.2: bullet 4: The guidelines should mention the soil ingestion pathway. It needs to be highlighted in the context of the consumption of country foods as traditional lifestyles can lead to considerable exposure. Often, soil ingestion is not properly estimated (e.g. using soil ingestion rates for city lifestyles and not traditional lifestyles).	Incorporated suggestions	
	CNSC	8.2.11.2: bullet 7: Implies effects will occur. Should reword to include "potential". Insert "potential" in front of "indirect effects of the Project".	Incorporated suggestions	
	CNSC	8.2.11.2: bullet 5: "the environment" is covered elsewhere in document. Suggested text improves clarity for this human health subsection, and emphasizes collec5tion of radiological data. Split bullet into 2 separate bullets	Incorporated suggestions	
	CNSC	8.2.11.1: bullet 2: The guidelines should be clear in specifying the use of quantitative and site-specific dietary information for traditional lifestyles. Revise bullet	Incorporated suggestions	
8.2.12 Cultural,	GN	Section 8.2.12 Cultural, Archaeological and Palaeontogical Resources: Bullet one should state that the department of Culture, Language, Elders and	Incorporated	

Section	Commenter	Comment	Action	Justification
Archaeological and Palaeontological Resources		Youth is responsible for archaeological and palaeontogical sites and the keeper of archaeological and palaeontogical data and material.	suggestion	
9 Environmental Management System	Laura Bowman	General comments: Management plans are not the same as mitigation plans. The section on mitigation is missing. The proponent should be prepared to put forward specific measures that will mitigate the adverse effects of the projects. There is also no discussion of mitigation of the impacts on harvesters of wildlife population, migration, distribution changes and contamination of wildlife.	No action taken	Covered in Section 9.4.16
	Laura Bowman	A new section should be added to this. There should be a community wellness mitigation plan to minimize the adverse effects of the project on community wellness. There is no discussion of infrastructure management. How will infrastructure be adequately maintained throughout the life of the project and beyond?	No action taken	Covered in Section 9.5
	EC	Paragraph 1: revise “base” to “based”	Incorporated suggestion	
9.1 Environmental Management Plan	Laura Bowman	It is pleasing to see that “The EMP shall provide a perspective on how potentially adverse environmental effects will be managed throughout the life of the Project.” However, this section should give specific requirements for the EMP to ensure that it does not consist of a “plan to make a more detailed plan later”	No action taken	Management of radionuclides will be covered under OHS and the CNSC authorization
	GN	Monitoring and mitigation plans, where relevant, should take into account potential malfunctions/accidents that may occur throughout the life of the project. Project components and activities may be impacted by these malfunctions/accidents and alternative measures for project activities should be identified.	No action taken	Covered in the 3rd paragraph
9.2 Environmental Protection Plan	CNSC	9.3: paragraph 4: Monitoring of TMF performance, i.e. physical, geochemical and geotechnical parameters/characteristics, should be included in the assessment of groundwater quality, contaminant transport, and permafrost evolution and prediction of long term environmental effects of TMFs.	Incorporated suggestions	
	CNSC	9.3: paragraph 5: Given the geographical location of the site, a description of the robustness of the monitoring program to climate change is needed. Add new bullet	Incorporated suggestions	
	CNSC	A new section/subsection is recommended. Conventional malfunctions and accidents may cause long-term or residual effects to persons and the environment. The guidelines need more content on potential accidents and malfunctions that have a reasonable probability of occurring. Suggest adding content.	Incorporated suggestions	
9.3 Monitoring and Mitigation Plans	Athabasca Denesuline	Although the EIS Guidelines identifies the need to monitor impacts of development on caribou herds, there are no timelines mentioned on when or if caribou-specific monitoring plans will be developed. We request a caribou-specific management plan be developed within the same timeline as the release of the EIS. Developments must not move forward without accurate and detailed understanding of the impact that these industries will have on caribou herds. This is particularly important in light of the recent documented declines in the Bathurst, Ahiak and Beverly herds. The potential impact to these herds is not understood by modern science. Simply offering to monitor and document the effects is not an option. We urge AREVA to carry out in-depth, detailed and peer-reviewed research on the potential impacts to caribou and develop said management plan.	None taken	Development of management plans is not typically required until the nature, scope and significance of impacts is delineated; however once impacts have been identified, information regarding proposed management plans is typically required as part of the analysis of mitigation measures.
	EC	Paragraph 3: revise from “In its monitoring and mitigation plans, the Proponent should specify criteria…” to “In its monitoring and mitigation plans, the Proponent should specify **proposed** criteria…”	Incorporated suggestion	
	GN	GN reviewers note that understandings of natural ecological conditions are an important element of impact monitoring. The GN requests that consideration be given to the application of a “reference condition” approach to the design and implementation of all biophysical environmental monitoring programs. This would improve the ability of the GN and others to interpret monitoring data in the context of natural variability in ecological conditions by allowing for differentiation between natural variability and project-specific impacts.	No action taken	
9.4 Biophysical	NRCan	Suggest adding an additional item on “Tailings Management Plan” with pertinent bullets: it is of paramount importance that the Proponent should	No action taken	

Section	Commenter	Comment	Action	Justification
Environmental Management Plans		describe in detail how process tailings and perhaps also treatment sludge, if any, will be managed both during the operation and post-closure.		
9.4.1 Risk Management and Emergency Response Plans	CNSC	9.4.1: 1st paragraph: Should indicate to the proponent that the designed emergency response capability and infrastructure should be sufficiently flexible to be used for the broad range of potential events and accidents. Recommend using suggested text	Incorporated suggestions	
	CNSC	9.4.1: bullets: As part of CNSC's licensing process, the proponent will need to develop a fire protection program to demonstrate a planned, coordinated and controlled approach to fire protection. For the purposes of the Guidelines, assessment of fire risk should be included in the Risk Assessment and Emergency Response Plan.	Incorporated suggestions	
	INAC	In the second bullet INAC suggests the inclusion of potential of malfunctions and accidents during air transportation, as also forms part of the proposed project .	Incorporated suggestions	
	TC	Bullet 2, Line 2; TC recommends air transportation to be included as part of the Analysis of the potential for malfunctions and accidents associated with Project facilities and activities.	Incorporated suggestion	
9.4.2 Spill Contingency Plans	GN	*Section 9.4.2 Spill Contingency Plan:* The plan should specifically address methods for spill and leak detection, with emphasis on detection methods under ice.	Incorporated suggestions	
	Laura Bowman	There should also be a complete spill prevention plan	No action taken	Covered under each topic of section 9.4.2
	EC	Under c. Shipboard Oil Pollution Emergency Plans (SOPEPs), bullet 2: replace “iron ore” with “uranium concentrate”.	Removed reference	
	TC	Shipboard Oil Pollution Emergency Plans (SOPEPs) Edit bullet 2; replace “iron ore” with uranium concentrates.	Removed reference	
9.4.3 Air Quality Monitoring and Management Plan	CNSC	9.4.3: Milling is not discussed but it involves other kinds of plants such as a sulphuric acid plant. This would involve SO2 monitoring as well asTSP, PM-10 and PM-2.5 monitoring, which are the major contaminants. Consider all emissions.	Incorporated suggestions	
	EC	Bullet 4: revise to “An incineration management plan, **as described in Section 9.4.7,** describing…”	Incorporated suggestion	
	HC	9.4.3 Air Quality Monitoring and Management Plan: Bullet two, line three (pg 77) appears to contain an error: replace “contaminates” with “contaminants”. HC advises consulting the Air Quality Effects section of the attached guidance document in the comments for additional details on conducting an assessment of air quality.	Incorporated suggestions	
9.4.4 Noise Abatement Plan				
9.4.5 Site Water Management Plan	NRCan	9.4.5: remove references to “fine iron ore”, “iron ore fines stockpile” and “off grade iron ore”	Reference removed	
	Laura Bowman	The prevention of contamination should be emphasized in this section, as well as water conservation, and the minimization of impacts on aquatic organisms, wildlife and harvesters.	Incorporated some of the suggestions	Other issues covered in bullet 4
	EC	Bullet 4: delete the words “iron” and “fines”	Removed reference	
	EC	Bullet 5: revise “characterization” to “geochemical characterization”	Incorporated suggestion	
	INAC	Although the Site Water Management Plan is required to include information with respect to surface runoff, snowmelt, rainwater, waste rock, stockpile runoff, storm water, and freshet, there is no mention of tailings groundwater and its contamination potential. INAC recommends that the Plan identify proposed operation and long term monitoring of groundwater down gradient of the tailings management facility.	No action taken	
9.4.6 Sewage/Grey Water Management Plan	Laura Bowman	The proponent should be asked to explain how the sewage management plan complies with effluent standards under the Fisheries Act.	Incorporated suggestion	
9.4.7 Incineration Management Plan	EC	The Proponent shall develop an Incineration Management Plan which is consistent with the guidance provided in the Technical Document for Batch Waste Incineration.	Incorporated suggestions	
	Laura Bowman	If the proponent proposes to incinerate waste, there should be a separate section dealing with this earlier in the EIS, including alternatives to incineration.	No action taken	
9.4.8 Waste Rock Management Plan	CNSC	9.4.8: bullet 2: Segregation criteria is part of waste management and should be added. Add to 2nd part of 2nd bullet: Details related to waste rock segregation criteria, stockpile methods and procedures,...	Incorporated suggestions	
	NRCan	9.4.8: remove references to “fine iron ore”, “iron ore fines stockpile” and “off grade iron ore”	Reference removed	

Section	Commenter	Comment	Action	Justification
	EC	EC suggests that this Plan could be broadened to include ore, or there should be a separate ore storage plan given that there will be the stockpiling of ore before processing.	No action taken	
9.4.9 Hazardous Materials Management Plan	GN	*Section 9.*4.9 *Hazardous Materials Management Plan:* The plan should outline the plans/commitments for removal of unused chemicals and/or reagents upon completion of project activities.	Incorporated suggestions	
	CNSC	9.4.9: bullet 1: Specific reference to nuclear substances should be included in the Hazardous Materials Management Plan	Incorporated suggestions	
	CNSC	Add "radiological waste" to the list of hazardous materials to be discussed.	Incorporated suggestions	
	CNSC	9.4.9: bullets: Specific reference to nuclear substances should be included in the Hazardous Materials Management Plan. Add a new bullet: Description of characteristics of nuclear substances and radiation devices to be stored at the facility and the location of these materials in the facility.	Incorporated suggestions	
	EC	Bullet 1: include “process reagents” in the list of hazardous materials	Incorporated suggestion	
9.4.10 Explosives Management Plan	NRCan	Bullet 3: “Details on the manufacture and storage facilities for Ammonium Nitrate and Fuel Oil (ANFO)”. Update section with recommendations made by NRCan.	Incorporated suggestions	
	NRCan	Bullet 5: “Spill reporting and clean-up procedures”. NRCan typically suggests that consideration of a “Spill Contingency Plan” be included in the environment assessment; while reporting and clean-up are elements of a spill contingency plan, depending on the nature of the risk, the scope of a Spill Contingency Plan can be broader (e.g. INAC’s April 2007 – Guidelines for Spill Contingency Planning).	Incorporated suggestions	
9.4.11 Landfill Management Plan	EC	EC asks if this Plan should include a section for landfarming?	Incorporated suggestion	New Management Plan
9.4.12 Borrow Pits and Quarry Management Plan				
9.4.13 Aquatic Ecosystem Management Plan	GN	*Section 9.4.13 Aquatic Ecosystem Management Plan:* The following, more inclusive wording of first sentence is suggested: “… minimize the impacts on aquatic system from any and all project activities**,** including transportation**,** occurring in or near …”	Incorporated suggestions	
	Laura Bowman	This presupposes that there are no alternatives to blasting in and around aquatic areas. It does not appear to reference management plan for shipping components of the project. All of these issues should be addressed.	No action taken	Covered in section 9.4.14 for aquatic blasting and section 9.4.15
9.4.14 Shipping Management Plan				
9.4.15 Wildlife Mitigation and Monitoring Plan	GN	Section 9.4.15 Wildlife Mitigation Monitoring Plan: The plan should include measures for avoidance and reduction of disturbance, harassment, injury or mortality of terrestrial wildlife as a result of all project components.	Incorporated suggestion	
	EC	Paragraph 1: EC should be added to the list of departments to be consulted when developing a Wildlife Mitigation and Monitoring Plan. An additional bullet should be added to ensure that monitoring programs are capable of detecting impacts and testing impact prediction	Incorporated suggestions	
	BQCMB	It is extremely important that the EIS include descriptions of: how results from monitoring will be used to modify mitigation measures or identify other actions required when actual impacts differ from those that were predicted thresholds and monitoring indicators that will trigger decisions or actions, including mitigation measures means for assessing the effectiveness of mitigation measures a mechanism for adaptive management. The guidelines should direct the Proponent to describe the statistical power of their analyses to detect changes, including effects size and levels of significance.	No action taken	Covered in Section 9.4.15
	BQCMB	Cumulative Effects and Caribou: Following is a preliminary list of information required to allow a meaningful assessment of cumulative effects on barren-ground caribou. This list is not exhaustive, but is provided for consideration by parties responsible for cumulative impact assessment. **1) At individual level; 2) At herd level; 3) At level of caribou-human system**	No action taken	
	Laura Bowman	The impacts on harvesters and wildlife availability for harvesters must be emphasized, including wildlife compensation for harvesters.	No action taken	Covered in section 8.2
9.4.16 Fish Habitat No Net Loss Plan	DFO	DFO will also require a monitoring program as part of the No Net Loss Plan, to demonstrate the habitat compensation works are functioning as intended.	Incorporated suggestion	
9.4.17 Road				

Section	Commenter	Comment	Action	Justification
Management Plan				
9.5 Socio-Economic Environmental Management Plan	BQCMB	In this section of the EIS, the Proponent should describe what compensation measures will be established for adverse socio-economic impacts respecting caribou, including compensation of traditional caribou harvesters for loss of food security and traditional way of life as a result of potential changes to caribou accessibility or increased levels of contaminants.	No action taken	
9.5.1 Occupational Health and Safety Plan	GN	*Section 9.5.1 Occupational Health and Safety Plan:* Suggested revision to Bullet #1 – "policies and guidelines….Nunavut's medical health system including the provision of relevant health and safety information regarding hazardous materials to the appropriate health centers.	Incorporated suggestions	
	CNSC	9.5.1: new subsection: The description of the Occupational Health and Safety Plan should reference requiring a summary of the program itself, including radiation protection. Add into text or as a new bullet: An overview of the occupational health and safety program (including radiation protection) for the activities and works being proposed.	Incorporated suggestion	
	Laura Bowman	It is very disconcerting that there is no public health and safety plan required. Particularly with respect to dust, noise, and air quality issues (i.e. radon, particulate matter etc.). This is a must-add.	No action taken	
9.5.2 Community Involvement Plan	GN	*Section 9.5.2 Community Involvement Plan:* The community involvement plan should include provisions to regularly evaluate public engagement efforts in order to identify their effectiveness and make necessary improvements /changes to achieve goals.	Incorporated suggestions	
9.5.3 Cultural and Heritage Resources Protection Plan	Parks Canada	The Thelon River was designated a Canadian Heritage River. We recommend that the potential impacts to these values be considered in the EIS Guidelines	Incorporated suggestions	
9.5.4 Human Resources Plan	GN	*Section 9.5.4 Human Resources Plan:* The second bullet should be split into two: recruitment strategies including communications and then skills training.	Incorporated suggestions	
9.6 Mine Closure and Reclamation Plan	GN	The draft EIS Guideline contains no requirement for information on security bond(s).. The GN requests that the proponent provide a discussion regarding any security bond(s) to be established in order to deal with potential for mine site abandonment. This discussion should describe the precedents and practices in other jurisdictions.	No action taken	Covered under section 5.1
	HC	9.6 Mine Closure and Reclamation Plan - Provide estimated radiation levels in the environment as well as estimated doses to members of the public after mine closure and remediation.	No action taken	
	INAC	The mine closure plan includes provisions for "a description of temporary closure measures and a discussion of at what point a temporary closure should be considered permanent for the purposes of requiring implementation of aspects of the Mine Closure and Reclamation Plan". During a temporary closure, or care and maintenance phase, there are still environmental obligations that must be met. As such, a stand-alone care and maintenance plan which addresses all project components should be submitted in addition to a Mine Closure and Reclamation Plan.	No action taken	
	NRCan	9.6: bullet 3: suggest modifying to read "Considerations for ARD and/or ML potential of rocks and tailing, in association with related waste rock and tailings management strategies;".	Incorporated suggestions	
	EC	Bullet 2: replace the words "major targets" with "goals"	Incorporated suggestions	
	EC	Bullet 3: EC suggests the following revised wording, "Description of reclamation methods, time frames and schedules, including proposed **progressive reclamation, research programs, and** notice periods to employees and public.	Incorporated suggestions	
	EC	Bullet 4: delete the words "aspects of"	Incorporated suggestions	
	EC	Bullet 8: this bullet does not make sense as written; it is unclear what the intent of this instruction is. EC asks, is the intention to discuss what long-term monitoring and maintenance may be required once physical and chemical stability has already been established? Please rephrase.	Bullet rephrased	
9.7 Follow-up and Adaptive Management Plans				
9.8 Significant Residual Impacts	BQCMB	Significance of residual impacts specifically for caribou, caribou habitat and caribou harvesters should be provided as part of the assessment of impacts of the Project on caribou.	No action taken	
10 Conclusion				
Appendix A				