

ECCC's comments on CNSC's draft REGDOC-2.9.1 *Environmental Protection – Environmental Policy, Assessments and Protection Measures*

March 18, 2016

Section 1.1 – Purpose:

- P. 1, it is indicated that this regulatory document provides information to applicants and licensees on protecting the environment and the health of persons, including (among others):
 - *design and implementation of effluent and emission release measures and of the environmental monitoring measures to confirm or test the predictions and the actual effects;*
 - *periodic assessments of the environmental protection measures and the licensee's performance.*

Uranium mines and mills are subject to the *Metal Mining Effluent Regulations* (2002) (MMER), and as a result, are required to conform to environmental effects monitoring (EEM) regulatory requirements. It should be clarified in this document that the guidance provided on environmental effects monitoring programs is being provided for fulfilling requirements specific to the *Nuclear Safety and Control Act* (NSCA) and not the requirements under the MMER which would be in addition to any requirements under the NSCA.

Section 3.2.2 - Roles and responsibilities for an environmental assessment under the NSCA - Applicant or licensee's role and responsibilities:

- P. 10 - *Documenting the EA findings:* In order to support a transparent EA licensing and decision-making process under the NSCA, it is recommended that any EA reports be available to the public at all times and not only upon request from the public, as stated in the draft REGDOC. This is the approach that has been adopted by the Canadian Environmental Assessment Agency (CEAA) under the CEAA 2012 EA process.

Section 4.1.2 – Complexity of the environmental risk assessment:

- P. 17 - *Updating the environmental risk assessment:* It is indicated that “if the updated ERA indicates that the nature, extent and significance of environmental effects is greater than identified in the licensing basis, the licensee shall implement adaptive management.” While it is understood that this draft REGDOC is supposed to provide general guidance to the licensee, it is recommended that additional detail on how large a deviation from the original ERA predictions would warrant the implementation of adaptive management measures.

Section 4.2.1 - Control of environmental releases:

- P. 19 - A licensee's effluent and emissions control should also address stormwater, as may be appropriate (not all facilities will require stormwater programs).

Section 4.5.1 – Groundwater Protection:

- P. 27 - *Requirements*: It is indicated that groundwater protection shall contain several measures, initiatives and processes including:
 - Measures and processes to prevent, stop or minimize:
 - Changes to groundwater quantity and quality (such as groundwater table elevations, flow direction and flow rates, interaction with surface water bodies, temperature and pH).

These measures should also be specified and adopted by the proponent for open pit mines, where the development of a deep open pit would create a draw down effect and, in some cases, change the direction of flow for a number of years, depending on the lifespan of the mining operation.

Appendix A: Environmental Assessments under the Canadian Environmental Assessment Act, 2012:

- The role of other federal departments (i.e., Federal Authorities –FAs) is ignored in most of this Appendix, particularly in Section A.2. FA roles should be reflected at the following points in the document as well as triggers for engaging FAs:
 - Page 33, 3rd Paragraph
 - Page 34
 - Page 36, Table A
 - Page 37, Step 3
 - Page 39, Step 7
 - Page 40, Step 9
 - Page 44, Section A.3.10 – EA follow-up program
- P. 36 - *Table A: Key steps for an environmental assessment under CEAA 2012*: This table should be modified to specify at which steps in the process CNSC would consult with Aboriginal groups. It is not clear from this table when the next opportunity to consult with Aboriginal groups would be after the EIS guidelines (i.e. step 5). From this table, it would seem that the next opportunity for consultation would be at the EA report stage, which seems to be too late in the EA process.

- Page 37 - *Step 1: Applicant conducts pre-project consultation with the CNSC* (top of page): It mentions that the CNSC may initiate discussions with other federal, provincial (etc.) groups but it does not indicate for what purpose.
- P. 38 - *Step 4: Defining participation opportunities* makes reference to REGDOC-3.2.2, *Aboriginal Engagement*. It is assumed here that REGDOC-3.2.2 describes how the CNSC engages Aboriginal people in the EA and licensing processes under the NSCA and when it is an RA under CEAA 2012. If this is the case, it would be beneficial to refer to this document earlier in the main body of REGDOC-2.9.1. It is recommended that this section of the draft document be expanded to include a fulsome discussion about Aboriginal Consultation, a summary of REGDOC-3.2.2 and a summary of CNSC's roles and responsibilities in relation to Aboriginal consultation.
- Page 40 – *Step 9: Commission hearing on the EA report*, 3rd Paragraph: The following sentence should be revised for added clarity. Some suggested text has been added to the sentence below (see underlined text). It has been assumed that the second part of the sentence is meant to apply to the general public and not just Aboriginal groups. Otherwise, a paragraph should be added to explain how the general public is notified and how they can get involved as intervenors.
 - *"The CNSC sends the notice to identified Aboriginal groups, and provides information to the general public on how to intervene".*

Appendix B - Characterization of the Baseline Environment for an Environmental Risk Assessment:

- Page 45, B.1 - *Atmospheric Environment*: It is indicated that the applicant or licensee should provide a description of the ambient air quality in the study areas. The recommended approach for these types of studies is to conduct baseline and/or background ambient air quality monitoring in order to establish existing concentrations of pollutants.
- Page 46, B.3 - *Aquatic Environment*: Baseline monitoring of the aquatic environment should also consider the evaluation of the benthic invertebrate community which would provide key information about the quality of the aquatic ecosystem. Any baseline studies should include information on sampling design, sampling methodology, sampling results, analysis of the results, etc.
- Page 47 – 48, B.4.2 - *Hydrogeology*: It is suggested that the following sentence be revised to include the underlined text *"The applicant or licensee should identify the groundwater recharge and discharge areas, and describe in detail the groundwater interactions with surface waters that may affect both the quality and the quantity of the groundwater or the surface water."*

- P. 48, B.5 - *Terrestrial Environment*: It is suggested that existing soil quality should be evaluated against any available federal, provincial or territorial soil quality criteria for the appropriate land use.

Appendix C - Environmental Effects for an Environmental Risk Assessment:

- Page 51, C.1 - *Atmospheric Environment*:
 - A licensee should identify and characterize all atmospheric emission sources and source points in addition to identifying all atmospheric emissions (radiological and non-radiological) expected to be generated during all phases of the lifecycle for the facility or activity, including postulated accident and malfunction scenarios. Direct GHG emissions should be estimated based on annual releases as CO₂ equivalent (CO₂e) for each phase of the project: Construction (e.g.: generated from on-road and off-road equipment) and Operation phases (e.g.: emergency back-up generators).
 - The Licensee should also describe the methods or practices (including best available technologies) that will be implemented to minimize GHG emissions throughout the lifecycle of the project.
 - It is indicated that the licensee should complete modelling that incorporates site-specific atmospheric characteristics (such as shoreline fumigation) to assess potential effects on air quality, the transport of atmospheric contaminants and any associated exposure to humans and non-human biota receptors. The air quality effects assessment should be based on cumulative effects that incorporate combined background or existing air quality with predicted results from the project.
- P. 51, C.2 - *Surface Water*: Loadings to receiving waters should be calculated as well.
- P. 52, C.3 - *Aquatic Environment*: The list of potential effects should also include potential effects on the benthic invertebrate community.
- P. 52, C.4.2 - *Hydrogeology*: Furthermore, there should be an assessment of how changes to groundwater quantity may affect surface water levels and flows. There should also be an assessment of how changes to groundwater quality may affect surface water quality.