Health Canada Santé Canada

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Ryan Barry
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Nunavut Impact Review Board
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Subject: Health Canada's Comments on the Draft Environmental Impact Statement (EIS) Guidelines for Uravan Minerals Inc.'s Garry Lake Project, NIRB File 08EN037

Dear Mr. Barry,

As requested in your email of November 24th 2008, Health Canada (HC) is commenting on the draft guidelines for the preparation of an EIS by Uravan Minerals Inc., for the Garry Lake Project, as part of the federal review of this project. Health Canada would like to provide the following comments relating to health, for your consideration:

In section 8.2 (n), "*Description of the potential for radiation exposure and radiation protection measures*", the proponent is referred to the Health Canada document, "*Canadian Guidelines for the Management of Naturally Occurring Radioactive Materials" (NORM) (2004)*. These HC guidelines are not intended to apply to exploration activity for uranium, which is generally a provincial/territorial responsibility. Rather, they are meant for dealing with incidental radioactivity contained in ores to be processed for extraction of metals other than uranium. However, the NORM guidelines do provide some context for radiation protection, and as such may be used as a reference or as a resource material for guidance. Please, also note that the government of Saskatchewan has recently published a document entitled "*Radiation Protection Guidelines for Uranium Exploration*" (available at: www.publications.gov.sk.ca/details.cfm?p=12280), and HC suggests that the proponent be referred to this publication as well.

With respect to section 8.3, HC suggests identifying the number of workers expected to be residing onsite or in workers' camp(s), and the distance between those and the worksite(s). HC suggests that an assessment of effects to human health may take into consideration these off-duty workers if they reside onsite or nearby.

With respect to section 8.7, Water Management, it is advised that the water management plan include the baseline levels of naturally occurring contaminants and physical characteristics, to enable an assessment of potential effects of drinking water quality on human health.

With respect to section 14.1, Biophysical Impacts, HC suggests that a subsection on human health be included in the EIS guidelines. Inclusion of all relevant information already presented,

associated with changes in noise and contaminants (including radiological parameters) in drinking water, air, and country foods, in one section of the EIS will facilitate the assessment of the potential effects of the project on human health. For country foods[1] the section would benefit from including also the following information:

- Consultation with the First Nations and Inuit, local residents, hunters, fishers and trappers to determine if country foods are currently consumed, or expected to be consumed, in the potentially affected area. When possible, identify what types of country foods are consumed, which parts of the food are consumed (*i.e.* whether organs are consumed as well as the meat), and consumption frequency. This information may be obtained from existing data and local Hunters and Trappers Organizations.
- An inventory of all potential contaminants and determination if there are possible transport pathways of these contaminants into country foods as a result of project activities. A contaminant with a pathway relevant to food sources is considered a contaminant of potential concern (COPC).
- A further level of assessment (*e.g.* Human Health Risk Assessment), if there is potential for contamination of country foods as a result of the project activities. An HHRA would consider adequate baseline data of COPCs in country foods prior to any project activities, a predicted impact of project activities on the concentration of contaminants in country foods, a risk characterization of the possible impacts from project activities, and possible risk management strategies, if appropriate.
- A further level of assessment is not necessary if any of the following criteria are met:
    - no potential COPCs are identified,
    - no feasible, operable exposure pathways into country foods exist,
    - no country foods are harvested from the areas, or
    - no human receptors are identified during the lifetime of the project (*i.e.* current and future project), or after the project lifespan, if there are any residual contaminants.
- A detailed justification, if it is decided that an assessment of the potential for contamination of country foods is not needed.
- A foods quality management plan, as a part of the environmental management plan, with information on the mitigation measures that will be put in place in order to minimize any negative impacts to local food quality during all phases of the project. Mitigation may include reduction of emissions (*e.g.* closed loop processes or emissions scrubbers for industrial projects), use of consumption advisories where increases of contaminant levels are unavoidable, biomonitoring, and educational programs to reduce the affected population's intake of contaminated country foods.

Thank you for providing HC with the opportunity to comment on the draft guidelines. Should you have any questions regarding Health Canada's response, please feel free to contact me.

Sincerely,

Kelly Senkiw
Environmental Assessment Coordinator

[1] Country foods include those foods harvested by hunting, trapping, fishing, or small-scale farming, or produce collected from natural sources (*e.g.* game, fish, shellfish, berries, medicinal plants).

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