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**RE: NWB 2BE-QAM8013- Cameco Corporation – Qamanaarjuk Project – Amendment – Type “B”**

On behalf of Environment Canada (EC), I have reviewed the information submitted with the above-mentioned application. The following specialist advice has been provided pursuant to the *Canadian Environmental Protection Act*, Section 36(3) of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

Cameco Corporation (Cameco) has applied to the Nunavut Water Board (NWB) to amend the Type B water licence for the Qamanaarjuk Project to increase the water use from 58m<sup>3</sup>/day to 113m<sup>3</sup>/day in order to operate two diamond drills on the project site.

In the Exploration/Remote Camp Supplementary Questionnaire completed by Cameco, it is stated under Waste Treatment and Disposal that “solids will be incinerated and liquids disposed through sumps.” Sewage sludge should not be burned in batch incinerators that are typically used in the north. Sewage sludge should only be burned in incineration equipment designed for this type of waste. Sewage sludge has high moisture content and low heat content that will increase operating costs dramatically and lead to poor incinerator performance. It is unlikely that the sewage will be completely combusted and could lead to the release of pathogens into the environment. The high moisture materials can leak from the incinerator hearth and lead to equipment damage and present health hazards to workers. Any emissions from sewage sludge incineration must be reported to the National Pollutant Release Inventory (NPRI), under the authority of the Canadian Environmental Protection Act, 1999 (CEPA 1999). <http://www.ec.gc.ca/npri>.

EC has developed a Technical Document for Batch Waste Incineration, and is available at the following web link: <http://www.ec.gc.ca/drgd-wrmd/default.asp?lang=En&n=82401EC7-1>  
The technical document provides information on appropriate incineration technologies, best management and operational practices, monitoring and reporting. This information should be incorporated into an incineration management plan for the Qamanaarjuk camp.

The Spill Contingency Plan should be updated to include the following:

- The Plan should include the following statement “**all spills** of oil, fuel, or other deleterious material, **regardless of size**, are to be reported to the NWT-NU 24hr Spill Line (867)920-8130”.

- Section 4.0 Reporting Procedures and Alerting, should include reportable spill quantities (see table Schedule 1 below, from Indian and Northern Affairs Canada 2007)

#### Schedule 1 – Reportable Quantities

TDG Class	Substance	Reportable Quantities for NWT/NU 24-Hour Spill Reports
1.0 2.3 2.4 6.2 7 None	Explosives Compressed gas (toxic) Compressed gas (corrosive) Infectious substances Radioactive materials Unknown substance	Any amount
2.1 2.2	Compressed gas (flammable) Compressed gas (non-corrosive, non-flammable)	Any amount of gas from containers with a capacity greater than 100 L
3.1 3.2 3.3	Flammable liquids	> 100 L
4.1 4.2 4.3	Flammable solids Spontaneously combustible solids Water reactant	> 25 kg
5.1 9.1	Oxidizing substances Miscellaneous products or substances excluding PCB mixtures	> 50 L or 50 kg
5.2 9.0	Organic peroxides Environmentally hazardous	> 1 L or 1 kg
6.1 8 9.3	Poisonous substances Corrosive substances Dangerous wastes	> 5 L or 5 kg
9.1	PCB mixtures of 5 or more ppm	> 0.5 L or 0.5 kg
None	Other contaminants (e.g., crude oil, drilling fluid, produced water, waste or spent chemicals, used or waste oil, vehicle fluids, waste water, etc.)	> 100 L or 100 kg
None	Sour natural gas (i.e., contains H <sub>2</sub> S) Sweet natural gas	Uncontrolled release or sustained flow of 10 minutes or more
<b>Report releases/potential releases of any size that:</b> <b>are near or into an open water body;</b> <b>are near or into a designated sensitive environment or sensitive habitat;</b> <b>pose an imminent threat to human health or safety; or</b> <b>pose an imminent threat to a listed species at risk or its critical habitat.</b>		

**Note:** L = litre; kg = kilogram; PCB = polychlorinated biphenyls; ppm = parts per million.

In addition, all releases of harmful substances, regardless of quantity, are to be reported to the NWT spill line if the release is near or into a water body, is near or into a designated sensitive environment or sensitive wildlife habitat, poses imminent threat to human health or safety, poses imminent threat to a listed species at risk or its critical habitat, or is uncontrollable.

- Additionally, please note that the number listed in Section 4.1 Telephone Roster of the Spill Contingency Plan for the 24hr Environment Canada Duty Officer is no longer in service. Please update the contact information for Environment Canada to the Iqaluit Duty Officer (867) 975-4644.
- Though the Appendix indicates that maps are located in the figures section, this section was not included in the Spill Contingency Report provided for review. It should be noted that a map of the site, including fuel storage area and locations of spill kits, should be included.

Environment Canada has no issues with the amendment provided the proponent follows mitigation measures outlined in the application and that they are in compliance with their existing water licence. Terms and conditions applied to the existing water licence should be carried forward to the renewal. Previous comments and recommendations submitted by EC staff relating to the Qamanaajuk Project would still apply.

If there are any changes in the proposed project, EC should be notified, as further review may be necessary. Please do not hesitate to contact me with any questions or comments with regards to the foregoing at (867) 975-4631 or by email at [Paula.C.Smith@ec.gc.ca](mailto:Paula.C.Smith@ec.gc.ca).

Yours truly,

***Original signed by***

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Ron Bujold (Environmental Assessment Technician, Environment Canada, Yellowknife, NT)

**References**

Indian and Northern Affairs Canada. 2007. Guidelines for Spill Contingency Planning. Retrieved from: <http://www.ainc-inac.gc.ca/ai/scr/nt/pdf/SCP-EUD-eng.pdf>