



Appendix

GN-01: Transportation of Hazardous Materials – Fuel and Spill Response	
Department	Environment
Organization	Government of Nunavut
Subject/Topic	Fuel & Spill Response
References	<ul style="list-style-type: none"> • NIRB Notice of Screening 19RA046 Ferguson Lake Project • NIRB Application for Screening #125496 • B.1_Ferguson Lake Project Abandonment and Restoration Plan_2015.pdf
CONCERNS	
<p>The project proposal indicates that 120 barrels of fuel will be hauled overland to the project site. The Proponent has not identified a plan to address the possibility of fuel spills arising from transport of fuel in barrels. Key aspects of a spill response plan, such as the ability to effectively contain, collect, and transport spilled fuel and any contaminated snow or soils has not been fulsomely described (B.1_Ferguson Lake Project Spill Contingency Plan_2015.pdf) in the project proposal.</p> <p>Section 5 of the Spill Contingency Plan recommends that staff on site should contact the GN's 24-hour Spill Line for instructions on how to manage the spill. The Spill Line is intended for reporting, not to provide incident specific advice. Crews should be trained to handle and deal with any spills related to the materials they are tasked with transporting (see comment GN-04).</p>	
SUGGESTIONS AND RECOMMENDATIONS	
<p>The Proponent should provide additional details within an existing or new spill response plan to address this deficiency. The GN has a published guidelines for the development of spill response plans, available from the Department of Environment's website.</p> <p>The Proponent must ensure that all staff associated with the proposed project activities are aware of any hazardous materials and adequately trained to respond to spills related to the materials they are tasked with transporting.</p>	

ADDITIONAL COMMENTS

Steps identified in the identification, containment, and cleanup of a spill should be scaled relative to the volume of fuel being transported. For example, if a single fuel barrel holding approximately 210 litres of fuel falls off the conveyance and spills, staff transporting the fuel should be able to respond accordingly to the volume of the spill in the expected environmental conditions.

GN-02: Transportation of Equipment Containing Hazardous Materials	
Department	Environment
Organization	Government of Nunavut
Subject/Topic	Transportation of Equipment Containing Hazardous Materials
References	<ul style="list-style-type: none"> • NIRB Notice of Screening 19RA046 Ferguson Lake Project • NIRB Application for Screening #125496
CONCERNS	
<p>The Project proposal indicates that a rock crusher will be relocated from a former Starfield worksite to the Ferguson Lake site per direction CNRD received from INAC (CIRNAC). The Proponent has not identified steps to ensure the equipment can be safely transported along this route without spilling hazardous materials. Such materials could include fuels, oils, and lubricants associated with the rock crusher.</p>	
SUGGESTIONS AND RECOMMENDATIONS	
<p>The Proponent should provide additional detail on how the potential for hazardous materials associated with the rock crusher will be identified and safely contained and/or removed for transportation of the rock crusher. The GN has a published a guideline for the handling and transportation of hazardous wastes, including used or waste fuels, oils, and lubricants. This guideline is available from the Department of Environment's website.</p> <p>The Proponent must ensure that all staff associated with the proposed project activities are aware of any hazardous materials and adequately trained to handle and respond to any spills related to the materials they are tasked with transporting.</p>	

GN-03: Transportation and Storage of Hazardous Materials / Waste	
Department	Environment
Organization	Government of Nunavut
Subject/Topic	Transport & Storage of Hazardous Waste
References	<ul style="list-style-type: none"> • NIRB Notice of Screening 19RA046 Ferguson Lake Project • NIRB Application for Screening #125496 • Ferguson Lake 2015 FCA and Soils Sampling Memo 2015 09 24.pdf • B.1_Ferguson Lake Project Abandonment and Restoration Plan_2015.pdf
CONCERNS	
<p>The Project proposal indicates the Proponent will haul empty sea-cans to the Project site where non-combustible, potentially hazardous waste will be loaded into the sea-cans transported back to Baker Lake for storage until they can be shipped south for appropriate disposal.</p> <p>The findings for the 2015 Soils Sampling Report (Ferguson Lake 2015 FCA and Soils Sampling Memo 2015 09 24.pdf) indicated that hydrocarbon contamination, while limited, was found within the Waste Storage Area.</p> <p>The 2015 Project Abandonment and Restoration Plan (B.1_Ferguson Lake Project Abandonment and Restoration Plan_2015.pdf) indicates that removal of some of this material was planned for the winter of 2015-16. It is not immediately clear whether this work was undertaken or how much non-combustible waste, contaminated/hazardous or otherwise, remains.</p> <p>It is possible these barrels and other wastes contain residual liquids, hydrocarbon residues, or other contaminants that could spill during loading, transport, and/or storage in the sea-cans as described in the Project proposal.</p> <p>The Proponent has not described how such contaminants would be contained during loading and transport back to Baker Lake, nor how this waste would be contained while being stored in Baker Lake.</p>	

SUGGESTIONS AND RECOMMENDATIONS
<p>The Proponent should provide additional details on how these materials and potential for hazardous materials would be contained during loading transport and storage as sea-cans are not leak-proof. Additional details should also be provided on how these materials will be safely stored in Baker Lake until their shipment to facilities outside of Nunavut. (See also GN-01,02, and 04 as they relate to staff training handling hazardous materials and spill response)</p>
ADDITIONAL COMMENTS
<p>The GN has a published a guideline for handling, transport, and storage of hazardous wastes, including used or waste fuels, oils, and lubricants. This guideline is available from the Department of Environment's website.</p>

GN-04: Transportation of Dangerous / Hazardous Materials	
Department	Department of Environment
Organization	Government of Nunavut
Subject/Topic	Transportation of Dangerous / Hazardous Materials
References	<ul style="list-style-type: none"> • NIRB Notice of Screening 19RA046 Ferguson Lake Project • NIRB Application for Screening #125496
CONCERNS	
<p>The Proponent will be transporting dangerous goods / hazardous materials and/or waste via a 3rd party contractor. It is the responsibility of the Proponent to ensure that it has properly registered as a generator and carrier of hazardous waste and is working with another party who is properly registered as a receiver of such waste. In addition, a waste manifest must be completed for all shipments of hazardous waste.</p> <p>The project proposal contains no detail on the status of such registration, or manifests. The type and total estimated volumes of waste has not been provided.</p> <p>Additionally, it is the Proponent's responsibility to ensure that any staff supporting proposed Project activities, either employed directly or contracted, are appropriately trained to safely handle and transport any dangerous / hazardous materials and clean up any spills related to handling or transport of these materials and/or waste.</p>	
SUGGESTIONS AND RECOMMENDATIONS	
<p>The Proponent should provide additional detail about the anticipated type and volume of waste to be transported and indicate the status of its registration as a generator and carrier of hazardous waste.</p> <p>The Proponent can refer to a guideline published by the GN which explains the steps required for the safe handling and transport of hazardous wastes. This guideline is available from the Department of Environment's website.</p>	

GN-05: Overland Heavy Transport – Wildlife	
Department	Environment
Organization	Government of Nunavut
Subject/Topic	Overland Heavy Transport Impacts on Habitat
References	<ul style="list-style-type: none"> • NIRB Notice of Screening 19RA046 Ferguson Lake Project • NIRB Application for Screening #125496
CONCERNS	
<p>The Proponent will be developing new seasonal trails to the Ferguson Lake site, a former Starfield site, and the adjacent communities of Baker Lake and Rankin Inlet, using heavy equipment.</p> <p>Depending on the type of equipment, snow cover, and soil type, the pressure exerted on the ground by this equipment could be sufficient to damage or destroy (through collapse) wildlife dens, or access to them. Examples of dens active during the proposed project activity window include barren ground grizzly and wolverine.</p>	
SUGGESTIONS AND RECOMMENDATIONS	
<p>The Proponent is encouraged to contact the Department of Environment prior to developing this trail work to understand how to avoid wildlife dens. This may include recommendations on habitat features to avoid, such as eskers, and/or areas which may have a relatively high density of known dens.</p>	

GN-06: Archaeological Resources	
Department	Culture and Heritage
Organization	Government of Nunavut
Subject/Topic	Archaeological Resources Effects
References	<ul style="list-style-type: none"> • NIRB Notice of Screening 19RA046 Ferguson Lake Project • NIRB Application for Screening #125496
CONCERNS	
<p>The proponent proposes the establishment of two winter roads, one road from Baker Lake to the Ferguson Lake exploration camp and a second road from the exploration camp to a rock crusher located about 100 km west of Rankin Inlet. Project activities that may affect heritage resources include the establishment of the winter roads and the use of snow track vehicles used to haul containers, fuel, waste material, and rock crusher along the winter roads.</p> <p>Furthermore, the Project Proposal contains insufficient information that precludes an adequate assessment of the potential adverse effects of the project. The GN has the following concerns:</p> <ul style="list-style-type: none"> • The <i>NIRB Application for Screening #125496: Ferguson Lake Project: Section Activities</i> indicates that site archaeological or paleontological value are unknown. A search of the Nunavut Archaeological Site Database indicates there are numerous archaeological sites along the indicated route, including three clusters of sites. Additionally, there is the possibility for the presence of unrecorded sites or cultural features, as the areas may not have been the object of a systematic archaeological assessment. • The scale of the map located in the <i>NIRB Application for Screening #125496: Ferguson Lake Project: Project Location</i> does not provide a precise location of the winter road routes. • CH notes that the mobilizing and demobilizing of equipment and supplies along the roads constitutes a concern as not only snow cover might mask unrecorded archaeological sites but the likelihood of vehicles impacting unidentified (unrecognized) protruding cultural features is high (i.e. inuksuit, caches, look-out, dwelling, etc.). 	
SUGGESTIONS AND RECOMMENDATIONS	

The Department of Culture and Heritage recommends that:

- 1) The proponent provides information that confirms the presence or absence of archaeological sites through the completion of an archaeological field assessment of any areas subject to ground disturbance activities along both winter road routes, as per the Department of Culture and Heritage Terms and Conditions – Land Use. A qualified archaeologist must apply for Class 2 permit(s) in order to conduct archaeological field assessments.
- 2) The proponent provides an appropriate scale map to indicate the precise location of the winter road routes.
- 3) The proponent works closely with the Territorial Archaeology Office to clearly identify and mark the locations of archaeological sites that might potentially be affected by development activities.
- 4) The proponent adheres strictly to the proposed transportation route/track.
- 5) No activities be conducted in the vicinity (50 m buffer zone) of any archaeological sites. If archaeological sites or features are encountered during the project, activities should immediately be interrupted and moved away from this location. Each site encountered needs to be recorded and reported to the Department of Culture and Heritage.

All archaeological and palaeontological sites in Nunavut are protected by law. The applicant must understand that it is their responsibility to ensure that no heritage resource sites are disturbed in the course of their activities. No person shall alter, or otherwise disturb an archaeological site, or remove any artifact from an archaeological site. Moreover, the building of inuksuit is not recommended.