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17XN021
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CIDMS # 1166429

July 28, 2017

Sophia Granchinho
Manager, Impact Assessment
Nunavut Impact Review Board
P.O. Box 1360
Cambridge Bay, NU, X0B 0C0
Via electronic mail to: info@nirb.ca

Re: Notice of Screening for Government of Nunavut's "Iqaluit Marine Infrastructure – Deep Sea Port" Project Proposal

Dear Ms. Granchinho,

On July 7, 2017 the Nunavut Impact Review Board (NIRB) invited parties to comment on the Government of Nunavut's "Iqaluit Marine Infrastructure – Deep Sea Port" project proposal. Indigenous and Northern Affairs Canada (INAC) appreciates the opportunity to provide comments and offers the response below as it pertains to the NIRB's request:

- ***Whether the project proposal is likely to arouse significant public concern; and if so, why;***

PSIR Section 1.5 Water Sources and Consumption, Page 13:

Issue: Section 1.5 states that the estimated water use during construction is 5 m³ per day, for a total of approximately 350 days (approximately 120 days per construction season). The source of this water has been identified as the City's water supply. Iqaluit is a rapidly growing area and has a limited water supply, which is not acknowledged in this document.

All or part of the expected daily water demand may not be available from the City's water supply. If not available, the project will need to determine an alternate water supply source and transport. Other industries have been required to source and transport their own water supply (e.g. Nunavut Brewing Co. required 10 m³/day and the city could only supply 2 m³/day). The city currently draws water from Lake Geraldine and identified the Niaqunguk River as a secondary source to help meet the current and growing demand. As indicated in Section 4.3.6, the Niaqunguk River water intake has



been delayed by 2 years and therefore may not be an available water source for construction of this project.

If the City cannot supply the project with its demand, the project will need to identify alternative sources and transport methods. This may affect schedule and cost. Further demand on the City water supply that is already at capacity may upset existing Iqaluit residents. Alternatively, drawing from an alternate source (if the City cannot meet the demand), may require additional study to determine the environmental effects of drawing from the identified potential sources.

INAC recommends that the proponent discuss the water supply demand along with the water supply capacity of the City. INAC recognizes that identification of alternate water sources is not within the scope of the current application. However, the implications of not being able to use the City's water supply should be discussed.

PSIR Section 5.3.4 and Construction Environmental Management Plan - Sections 3.3.1 & 3.3.2:

Issue: Proponent does not acknowledge potential safety and security risks to public (non-worker) ATV and snowmobile traffic access to area.

The Project proponent provides sufficient information regarding the management of construction worker and equipment traffic to reduce risk of accident and injury. The plan does not include any information regarding risks to ATV and snowmobile traffic access to the Project site.

Assuming public interest and regular use of lands near Iqaluit for recreational and hunting travel, the proponent should have a clear plan to ensure public safety and site security within a site traffic access plan.

INAC recommends that the proponent clearly state means and methods to ensure public safety and site security are included in the Project Traffic Management Plan.

PSIR – Section 6:

Issue: Climate change effects are not fully considered.

Climate change effects in the Canadian Arctic have been the focus of considerable attention, including effects on fishery migration, sea ice changes, and an increased open water access period which can influence future fisheries operation and cruise ship arrivals.

The effects of climate change on local use of the port and adjacent waters should be considered for both construction and operations of the Deep Sea Port (DSP).

INAC recommends that the Proponent provide some evaluation of the cumulative effects of climate change on the design and operation of the DSP.



- ***Whether the project proposal is likely to cause significant adverse eco-systemic or socio-economic effects; and if so, why;***

PSIR Section 1.6.2

Issue: Waste management during operations.

The PSIR states that during operation of the DSP, waste production will be minimal and is not expected to vary significantly from the solid waste produced at the Sealift Beach for current operations.

Potential environmental impacts may occur if the operational and management strategies including solid waste management are not adequate to address potential increased DSP use.

INAC recommends that additional consideration and detail be provided to address waste management during operations; including preparation of an Operations Waste Management Plan.

PSIR Section 5.1.5 Marine Sediment and Water Quality, Page 73:

Issue: There is no recognition that construction must take place during the wettest months of the year (June, July, August, and September) and minimal discussion on erosion and sediment control of onshore activities.

Construction must take place during the wettest months of the year, where precipitation is more likely to fall as rain vs snow. At the proposed site, storm water runoff drains directly into the ocean and may negatively impact the water quality of the surrounding ocean environment.

INAC recommends that the proponent provide further discussion on onshore erosion and sediment control and water management during construction.

Terrestrial and Human Environment Baseline Report, Section 3.3.1:

Issue: Insufficient detail regarding methods for testing ARD potential in rock cut area.

Acid Rock Drainage (ARD) potential in the rock cut area was determined to be low by the proponent based on the results of the baseline study. Based on this conclusion the proponent does not provide further mitigation for the potential of encountering material with a higher potential for ARD during construction activities.

Methods describing the collection of rock samples for analysis of ARD potential did not provide sufficient detail to determine from what depths the rock samples were collected. It is unclear from the information provided if sample depths match those required for construction and in fact represent material that will be exposed as a result of project activities.



INAC recommends that contingency plans be identified in the event material with a potential for ARD is encountered during construction.

PSIR - Section 5.3.5.1:

Issue: The Proponent acknowledges a policy of zero tolerance of illicit drugs, but not legal drugs nor alcohol.

Safe operations of construction activity could be compromised by worker use of alcohol or prescription and legal drugs. The project proponent states that there will be a zero tolerance policy of illicit drugs but not alcohol, nor legal drugs.

INAC recommends that the proponent enhance the statement on drug tolerance to specifically include alcohol, prescription and illegal/legal drugs.

Marine Baseline Report part 1, section 3.2.2, page 9:

Issue: Wind waves modeling results.

Mention is made of desktop study of mid-July to mid-November extreme wind generated arriving at the DSP. Extreme waves from the southeast and northeast are then presented in Table 3-1. No detail is provided on what the desktop study consisted of, nor data sources, nor type of analysis conducted. In addition, if the waves from the southeast are indeed the direction with the longest fetch, what justifies the selection of northeast? Have swells from the southeast coming up from Frobisher Bay been considered?

Lack of clarity and explanations may lower the level of confidence in the modeling results.

INAC recommends that more information on methodology and results of the desktop study be provided as well as justification for the selection of only two directions and restriction to wind waves.

CEMP Section 3.2.2 Emergency Response:

Issue: There is insufficient detail related to the types of emergency situations anticipated during construction and operation of the DSP.

The CEMP states that an emergency response plan will be developed during construction but there is no indication of what types of emergencies the proponent anticipates could occur as well as no discussion on emergency response during operation.

It is uncertain if the proponent has considered all potential emergency situations that may result in significant adverse effects to the environment and members of the community should they occur.

INAC recommends that the proponent provide an overview of what types of emergencies may arise from the project and the types of mitigation measures that may



be employed with the understanding that more detail will be provided in the Project Emergency Response Plans. INAC also requests clarification that the emergency response plan will cover only construction activities or operation of the DSP as well.

CEMP Section 4, Monitoring and Reporting:

Issue: It is unclear what data will be included in the Environmental Monitoring Reports and if these will be submitted to applicable regulatory agencies.

Various monitoring activities will take place throughout the construction phase (e.g. underwater noise, marine mammals, TSS/turbidity, etc.). Various compliance monitoring/sampling may also be required as a condition of approval under various permits associated with the project.

This section does not reference how data collected during compliance monitoring and/or environmental effects monitoring will be made available to regulatory agencies as well as at what frequency and what types of data would be included.

INAC recommends that the proponent provide more detail related to how the data collected during compliance monitoring and environmental effects monitoring will be reported to applicable regulatory agencies.

CEMP Section 3.6 Marine Construction, Table 3-8 MC01:

Issue: Insufficient detail provided regarding the marine construction monitoring program.

The CEMP commits to monitoring TSS/turbidity and marine mammals during marine construction activities but does not provide sufficient detail to determine if monitoring is adequate to be able to detect adverse effects to the marine environment resulting from project activities.

Details regarding marine construction monitoring activities are not provided. In order to determine if proposed monitoring activities will be effective in detecting/preventing adverse effects to the marine environment, details related to location, frequency, timing, methods, etc. are required.

INAC recommends that the proponent provide more details regarding marine construction monitoring. It is understood that the detailed monitoring plan will be developed by the contractor. However, a discussion on the minimum requirements of a monitoring program is required to determine if this would be adequate in ensuring adverse effects to the marine environment are minimized or avoided.

PSIR Section 5.1.5.2:

Issue: Release of oil into the Arctic marine environment, either through accidental release or illegal discharge, is the most significant threat from shipping activity (AMSA, 2009).



Potential impacts to water quality during operations at the DSP could occur as a result of accidental spills from vessels or cargo operations. The PSIR states that general operational activities will be mitigated through practices currently in place for sealift operations; and that activities will be similar to existing conditions and managed using existing practices.

The proposed DSP is much larger than the existing infrastructure and will have different operational practices. Inadequate or inappropriate spill response materials and procedures may negatively impact marine water quality.

INAC recommends that a site-specific Spill Prevention and Response Plan be developed for operational activities for the proposed DSP.

PSIR Section 1.7 - Fuel (page 15):

Issue: Section 1.7 states that refueling of mobile equipment will take place at designated fueling areas, or at the mobile equipment's location on the project site.

The reason for the establishment of designated fueling areas is to mitigate the risk of spills during refueling as these areas would typically be constructed in a manner that would contain a potential fuel spill and/or allow for a rapid response to a spill should one occur. Designated refueling areas are also typically situated in areas away from environmentally sensitive areas and as such act to further reduce the potential for accidental spills of fuel into areas such as streams and wetlands.

Refueling mobile equipment anywhere on the Project site outside of designated refueling areas increases the risk of introducing fuels and other deleterious substances into the environment.

INAC recommends that the proponent ensure that refueling of mobile equipment occurs only at designated refueling stations in order to mitigate adverse effects from potential accidental spills.

CEMP Section 3.3.2 Vehicle and Equipment Operators and Use, Table 3-4 VEO5 Preliminary Spill Prevention and Response Plan Section 2, Table 2-1 VEO5:

Issue: Details on where onshore equipment can be serviced and refueled are vague.

The reason for the establishment of designated fueling/service areas is to mitigate the risk of spills during refueling as these areas would typically be constructed in a manner that would contain a potential fuel spill and/or allow for a rapid response to a spill should one occur. Designated refueling areas are also typically situated in areas away from environmentally sensitive areas and as such act to further reduce the potential of accidental spills of fuel into areas such as streams and wetlands.

The CEMP requires the avoidance of refueling/service of onshore equipment 15 m from a sensitive habitat, but does not define what and where the sensitive habitats are.



INAC recommends that the proponent provide more details on where onshore equipment is to be refueled and serviced in order to prevent the release of deleterious substances into the environment.

PSIR Section 5.1.5 Marine Sediment and Water Quality:

Issue: There is insufficient detail related to mitigation measures/specific emergency response measures should an accident/malfunction occur during fuel transfer at the new facility.

The new fuel transfer facility will provide a safer means to offload fuel. However, the new location will require specific measures/design components to ensure significant adverse effects resulting from potential spills do not occur.

Specific mitigation measures designed to address potential accidents and malfunctions related to the new fuel transfer facility are not provided.

INAC recommends that the proponent commit to providing specific mitigation measures for the new fuel transfer facility that will address potential accidents and malfunctions in the Project specific Operational Environmental Management Plan.

- ***Whether the project proposal is likely to cause significant adverse impacts on wildlife habitat or Inuit harvest activities; if so, why;***

PSIR - Section 5.3.3:

Issue: Proponent acknowledges that hunters can adapt to changes resulting from construction activities, but not how construction can adapt to hunters needs or requirements.

The proponent states that hunting, fishing, trapping and gathering are essential activities for Inuit culture and livelihood. The Inuit continue to rely on these activities as a source of nutrition and clothing. In consideration of the potential impacts on Inuit harvesting rights, the following factors have been taken into consideration:

- Harvesting locations in and around the DSP Study Area;
- Access to ice and water (navigation);
- Timing of construction activities; and
- Potential impacts to harvested wildlife, especially Arctic char, which are harvested by gillnet in and around the DSP Study Area.

The proponent notes hunter's statement that they can adapt to the construction activities but does not state how the project will adapt to hunter's need/requirements.

Efforts should be taken to accommodate traditional practices and resource use activities.

INAC recommends that the proponent clearly state how they will communicate and accommodate the needs and practices of local Inuit harvesters.



INAC appreciates the opportunity to provide comments and looks forward to working with the NIRB and the Proponent throughout any further review phases related to this project. Should you have any questions, please contact David Zhong at (867) 975-4556 or by e-mail at David.Zhong@aandc-aadnc.gc.ca.

Sincerely,

[Original Signed by]

Felexce Ngwa
A/Manager, Impact Assessment