Effective June 16, 2006

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NUNAVUT IMALIRIYIN KATIMAYINGI
NUNAVUT WATER BOARD
OFFICE DES EAUX DU NUNAVUT

WATER LICENCE
APPLICATION FORM

REVISED

Application for: (check one)

☒ **New** ☐ **Renewal** ☐ **Amendment** ☐ **Assignment** ☐ **Cancellation**

LICENCE NO:
(for NWB use only)

1. NAME AND MAILING ADDRESS OF APPLICANT/LICENSEE

Rod Watson
Project Manager | Gérant de projet
Directorate Construction Project Delivery | Direction de la livraison de projet de construction

Phone: 613-945-7720
Fax:
e-mail: rodney.watson@forces.gc.ca

2. ADDRESS OF CORPORATE OFFICE IN CANADA (if applicable)

National Defence | Défense nationale
101 Colonel By Drive | 101 promenade Colonel By
Ottawa, Canada K1A 0K2

Phone: 613-945-7720
Fax:
e-mail: rodney.watson@forces.gc.ca

3. LOCATION OF UNDERTAKING (describe and attach a topographical map, indicating the main components of the Undertaking)

The proposed project is located on Federal Crown land located on Strathcona Sound, at approximate latitude 73°N and longitude 84°W, on the northern tip of Baffin Island. It is currently administered by the Department of Fisheries and Oceans. It is composed of a land lot and a water lot, totaling approximately 108 acres (approximately .44 square kilometers). It is located on the south shore of Strathcona Sound, 25km from the community of Arctic Bay. It is linked to this community through a 33km "all weather" road, characterized as a dirt road and kept opened and cleared all year round. The topography at the Nanisivik Port site is relatively flat with a slight change in elevation along the shoreline or in close proximity to the shoreline. The port site lies at the foot of a wide valley that features a notable rise composed of sedimentary cliffs and bluffs leading to a rough plateau to the east and west approximately 640 meters above sea level.

Please see project summary and presentation for site map, diagrams and conceptual drawings.

Latitude: (73°4'12" N) Longitude: (84°32'49" W)
NTS Map Sheet No. 048c01 Scale: 1:50,000 or 1:250,000

4. DESCRIPTION OF UNDERTAKING (attach plans and drawings)

The proposed Nanisivik Naval Facility (NNF) will be located on federally owned land. The primary objective is to provide a "docking & refueling facility" for Her Majesty's Canadian (HMC) Ships and to other Government of Canada

(GOC) vessels, including the Canadian Coast Guard (CCG). The Nanisivik Naval Facility may also be used to receive, marshal, hold and distribute cargo and goods from commercial sea vessels and to provide appropriate shelter, work areas and amenities for personnel during the navigable season of the year. The facility will be unmanned and shut down from November to June, each year. However, minimum power and heat will be maintained for proper maintenance of equipment and to guarantee site security monitoring. The Arctic/Offshore Patrol Ships (AOPS), which are part of Her Majesty's Canadian (HMC) ships for the GOC, will be delivered in 2013 and operational in 2014. The Nanisivik Naval Facility has a target Initial Operational Capability post 2010 in order to provide support to vessels in the North. Full Operational Capability of the Nanisivik Naval Facility will be in 2015.

Methods of Transportation:
During the construction and operation phases, the primary means of transportation for material and equipment to and from the Nanisivik Naval Facility will be by cargo ship, barge or airplane. Vehicles will be used to and from the site and the Arctic Bay community for transfer, re-supply of goods, movement of personnel and to access the health centre, police and other community services.

Any structure that will be erected (permanent/temporary)
Permanent structures that will be erected at the Nanisivik Naval Facility include:
1. Berthing Infrastructure (existing berthing facility will be retrofitted);
2. Bulk Fuel System;
3. Shore Support Building(s);
4. Outdoor Secure Vehicle Parking Area;
5. Indoor Secure Winter Storage;
6. Secure Material Lay Down Area;
7. Cargo Marshalling Area;
8. Helicopter Landing Area;
9. Beach Landing and Launching/Recover Area;
10. Flag Mast;
11. Site Signage;
12. Site Roadway(s) (the existing roads will be repaired and reused);
13. Site Services/Utilities.

Temporary structures during construction (mobilization to demobilization), will consist of a camp and warehouse. The warehouse will provide shelter for material and equipment storage. All structures for the work camps will be transported to the site pre-fabricated; these will be demobilized upon work completion.
Alternatives considered

The Nanisivik location was selected for the following reasons:
- Convenient steaming distance off the Northwest Passage;
- Offers access to Eastern Arctic (Hudson/Davis Strait) waters;
- Acceptable steaming time from Halifax & St. John's;
- Good seasonal at-sea presence opportunities;
- Existing facilities available for "ownership transfer", i.e.: federally owned and administered land.

Alternative designs of the Nanisivik Naval Facility layout will be made available once designs are developed by the architecture and engineering consultants.

An objective of the Nanisivik Naval Facility is to build a sustainable relationship with the community of Arctic Bay. DND is exploring employment to Arctic Bay residents who could provide site support during the operational season. Specific details of the arrangement have yet to be determined. The civilian service providers would collaborate with DND in planning and preparing on-site activities during the "off-season" for the subsequent operational-season.
Other initiatives include constructing (or leasing, if possible) a Project Management Office (PMO) in Arctic Bay. It will serve a three-fold purpose:
- A window into the community for the Nanisivik Naval Facility, from which to conduct business;
- A place for the Nanisivik Naval Facility staff to go to and work on occasion when activities at the facilities are less active;
- A place that may be used by the local detachment of the Canadian Rangers Patrol organization and Joint Task Force North (JTFN).

The Nanisivik Naval Facility's infrastructure, excluding the berthing facility, shall have an economic service life of 40 years, using the Industrial Scale. This means that the buildings and works shall not require major structural recapitalization for that period of time. Mechanical and electrical systems and services may require recapitalization in 20 years. The berthing and fuel facilities will be designed to be operational for not less than 50 years without recapitalization. All components, services and fixtures will be designed and built for a long-term life-cycle.

Formal plans, designs and drawings will be provided by the Department of National Defence once the design consultants for the project are selected.

5. **TYPE OF PRIMARY UNDERTAKING** (A supplementary questionnaire **must** be submitted with the application for undertakings listed in **"bold"**)

- ☐ **Industrial**
- ☐ **Mining and Milling**(includes exploration/drilling)
- ☐ **Municipal** (includes camps/lodges)
- ☐ Power
- ☐ Agricultural
- ☐ **Conservation**
- ☐ Recreational
- ☒ **Miscellaneous** (describe below):

Please see attached questionnaire for the exploration/remote camp supplementary questionnaire.

See Schedule II of *Northwest Territories Waters Regulations* for Description of Undertakings

6. WATER USE

☒ To obtain water
☐ To cross a watercourse
☐ To modify the bed or bank of a watercourse
☐ Flood control
☐ To divert a watercourse
☐ To alter the flow of , or store, water

☐ Other (describe):

7. QUANTITY OF WATER INVOLVED (cubic metres per day including both quantity to be used and quality to be returned to source)

Water use ☒ 100m^3/day or less
☐ Greater than 100m^3/day; if greater, indicate quantities to be used for each purpose (camp, drilling, etc.)

Water returned to source
no water will be returned to source m^3/day

8. WASTE (for each type of waste describe: composition, quantity (cubic metres per day), methods of treatment and disposal, etc.)

☒ Sewage
☒ Solid Waste
☒ Hazardous
☒ Bulky Items/Scrap Metal
☒ Waste oil
☒ Greywater
☒ Sludges
☐ Other describe):

As a minimum, the camp sewage will be directed to a lagoon situated at approximately 100 metres from the camp. This lagoon shall be located at least 100 metres from any natural drainage course and water bodies that support aquatic life. The sewage lagoons will be sized to provide an individual capacity for approximately one half of the duration of the construction season. The maximum fluid depth shall not exceed one metre. The sewage effluent will be tested prior to discharge for the following parameters: Biological Oxygen Demand, Total Suspended Solids, Oil & Grease; Faecal Coliforms and pH. Greywater from camp operations will also be discharged into the sewage lagoon. Domestic garbage will be incinerated in an enclosed container (we assume this will typically be a forced-air incinerator) and the residual waste buried in a NonHazardous Waste Landfill, or transported to off-site facilities. All excess fuels, camp equipment and facilities will be removed from the site after completion of the clean up activities. Any hazardous wastes encountered during the construction, operation or decommissioning phases of the Nanisivik Naval Facility will be packaged and stored according to Transport of Dangerous Goods Regulations prior to shipment to a southern disposal facility. Waste oil, in this case, is included as hazardous waste and will be treated as such in the waste management plan.

9. OTHER PERSONS OR PROPERTIES AFFECTED BY THIS UNDERTAKING (give name, mailing address and location; attach if necessary)

INAC will need to provide a license to draw potable water from Twin Lake, located on Crown Land.

Land Use Permit

DIAND	☐ Yes	☒ No	If no, date expected _____
Regional Inuit Association	☐ Yes	☒ No	If no, date expected _____
Commissioner	☐ Yes	☒ No	If no, date expected _____

10. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES (direct, indirect, cumulative impacts, etc.)

The site for the proposed Nanisivik Naval Facility is federally owned and administered. It is currently under the administartion of the Department of Fisheries and Oceans; a transfer to the Department of National defence is being undertaken. The Nanisivik Naval Facility project will include the construction of a facility to support the re-fueling of naval and other Government of Canada ships, in particular ships of the Canadian Coast Guard. The scope of the project includes the port facilities and the area of land and water delineated in the attached drawing comprises a total area (land and water) of 108 acres or 43.71 hectares.

Based on the scope of the project, the preliminary scope of the environmental assessment for the Nanisivik Naval Facility will include terrestrial components within the project area (soil, landforms, geology), atmosphere (noise, emissions, and air quality), hydrology (water quality, water quantity, both for freshwater and marine environments (in the wharf's vicinity)), biology/ecology (living organisms living in the other environmental components, interactions and synergies), and socio-economic impacts (traditional hunting practices, employment opportunities, investment opportunities).

Without having actually conducted an environmental assessment, it is assumed that the predicetd impacts associated with the proposed project will be less significant than the impacts associated with the activties conducted under the former proponents at the existing site. The predicted scope of the impact assessmemt listed above will include mitigation measures to try and attenuate all potential negative environmental and social impacts, all the while increase positive impacts of the project.

Direct and indirect impacts may include, in no order of significance: erosion and associated siltation in Starthcona Sound, noise and the associated impacts to wildlife, atmospheric emissions from engines and generators, and employment opportunities. The significance of predicted negative and positive impacts of the project will be confirmed after a rigorous environmental assessment under the Nunavut Impact Review Board.

There may be cumulative impacts associated with proposed project, including negative and positive synergistic impacts associated with other activties in North Baffin Island, such as mining activities. The cumulative impacts, in an early prediction, will likely be related to socio-economic aspects, since the projects may affect traditional hunting activities. In the same light, the positive cumulative impacts may also affect socio-economic aspects, for the naval facility may provide positive employment opportunities to Arctic Bay residents and the region of North Baffin Island as a whole.

NIRB Screening ☒ Yes ☐ No If no, date expected _____

11. INUIT WATER RIGHTS

Will the project or activity substantially affect the quality, quantity, or flow of water flowing through Inuit Owned Lands and the rights of Inuit under Article 20 of the Nunavut Land Claims Agreement?

NO

If yes, has the applicant entered into an agreement with the Designated Inuit organization to pay compensation for any loss or damage that may be caused by the alteration. If no compensation agreement has been made, how will compensation be determined?

12. CONTRACTORS AND SUB-CONTRACTORS (name, address and functions)

Name, address and funtions are not availble at this time, but will be provided upon selection of the construction contractor consultants.

13. STUDIES UNDERTAKEN TO DATE (list and attach copies of studies, reports, research, etc.)

The following studies have been undertaken to date:
- Site inspection of the Nanisivik Wharf (2009)
- Detailed Topographic Survey (2009)

- Geotechnical Study (2009)
- Archaeological Assessment (2009)
- Fuel Tank Inspection (2009)
- Phase I, II and III environmental site assessments (2009)

14. THE FOLLOWING DOCUMENTS MUST BE INCLUDED WITH THE APPLICATION FOR THE REGULATORY PROCESS TO BEGIN

Supplementary Questionnaire (where applicable: see section 5) ☒ Yes ☐ No If no, date expected _____

Inuktitut and/or Inuinnaqtun/English Summary of Project ☒ Yes ☐ No If no, date expected _____

Application fee of $30.00 (Payee Receiver General for Canada) ☐ Yes ☒ No If no, date expected (**Federal Land)**

Water Use fee of $30.00 (unless otherwise indicated in Section 9 of the *NWT Waters Regulations;* Payee Receiver General for Canada)

☐ Yes ☒ No If no, date expected **(Federal Land)**

15. PROPOSED TIME SCHEDULE (unless otherwise indicated, the NWB will consider the application for a five (5) year term)

☐ one year or less (or) ☒ Multi Year

Start Date: 2010 Completion Date: 2055

Rodney Watson	**Nanisivik Naval Facility, Project Manager**		**Nov,14, 2008**
Name (Print)	**Title (Print)**	**Signature**	**Date**

For Nunavut Water Board office use only

APPLICATION FEE **Amount: $_____** **Pay ID No.: _____**

WATER USE DEPOSIT **Amount: $_____** **Pay ID No.: _____**