

# Abandonment and Restoration Plan For Temporary Facilities

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**CONTRACT:** **NPO1301 – 55468 Const. of Nanisivik Naval Facility**

**Location:** **Nanisivik, Nunavut**

**Client:** **Defence Construction Canada**

**Company:** **Almiq Contracting Ltd.**

**Prepared by:** **Stéphanie Bouchard-Dallaire**

**Title/Function:** **Project Technician**

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## 1 GENERAL

This plan is made in compliance with regulations, guidelines and policies of Nunavut, as required in the project's water license no. 8BC-NNF1418. It was made according to the *Guidelines for Abandonment and Restoration of Mine Sites in NWT – September 1990*. This plan also follows the recommendations of the *Mine Site Reclamation Policy for Nunavut*, but is also part of Almiq's commitment to protect the environment from contaminants resulting from its construction activities.

## 1.1 Environmental Policy of the Company

**Almiq Contracting Ltd.** is committed to protect the environment, protect the health, safety and welfare of its employees and the communities in which it operates. The Company is committed to comply with all the regulations, guidelines and policies applicable to the protection of the environment, to assess the risks related to its business and to take measures to ensure continuous improvement.

Our vision is based on our core values of commitment, integrity, respect, trust, health, safety and environment, teamwork and openness to different cultures.

### Guidelines for health, safety and environmental protection

- We work together to identify, analyze, eliminate or control the risks associated with HSE for our employees, communities and the environment in which we operate in order to meet the minimum HSE legislation.
- We fulfill our duties with respect to HSE and we ensure that our employees are equipped, trained and motivated to achieve our goal of zero incidents, injury and disease.
- However, if an accident were to occur, we favor a return to work as quickly as possible using the temporary assignment.
- We encourage on a regular basis, through safety breaks, our employees to adopt a healthy lifestyle, to be careful and respect the environment at work and at home.
- We check each shipment of hazardous materials (WHMIS).
- We strive to prevent and minimize the adverse effects of our activities on the environment.
- We actively participate into LEED projects.
- We collect harmful materials and dispose of them in accordance with the regulations, guidelines and policies.
- We develop, when required, an environmental response plan tailored to our projects.

### To support this policy, Almiq Contracting Ltd. is committed to:

- Ensure that all those who work for the company understand their responsibilities with regard to the HSE and demonstrate through concrete action their commitment to achieving the goal of zero incidents.
- Favour an open and transparent communication to build lasting relationships with our stakeholders and to make long-term improvements in HSE.
- Encourage, recognize and reward positive contributions to HSE performance.
- Maintain the employment relationship with a temporary assignment for any injured employee to facilitate return to work as soon as possible.

### To support this policy, the employee is obligated to:

- Timely completion of the appropriate documents for reporting of an incident, accident, or other problems.
- Follow all guidelines and instructions provided by their immediate supervisor.

- Collaborate with the company during HSE investigations.
- Remember that the HSE is everyone's responsibility.



Charles Deslauriers, *General Director*



Lynda Noël, *Assistant General Director*

## 1.2 Goal

The goal of restoration is to prevent progressive degradation, and to enhance natural recovery of areas affected by our construction operations.

- To ensure the impact of temporary facilities on the environment and human health and safety is minimized.
- To ensure that temporary facilities, wastes and storage areas are abandoned in such a manner that the requirement for long-term maintenance and monitoring is minimized;
- To prevent continued loadings of contaminants and wastes to the environment;
- To prevent acid drainage; and
- To return affected areas to a state compatible with the original undisturbed conditions, giving due consideration to practical factors including economics, aesthetics, future productivity, and future users.

## 1.3 Content

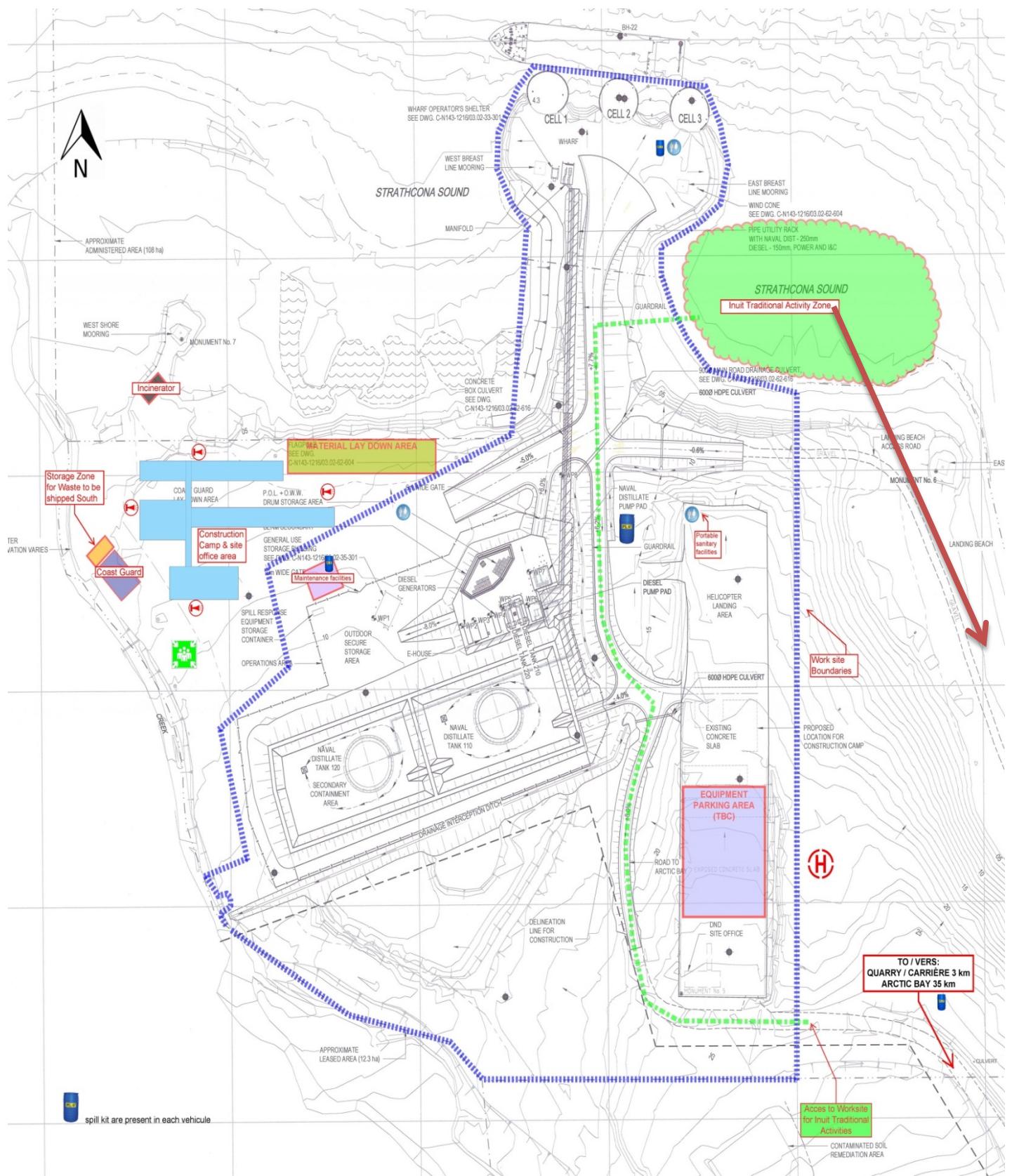
The plan contains abandonment and restoration for the following temporary infrastructures:

- Quarry Site (please refer to Quarry Management plan)
- Waste Rock and Overburden Piles
- Fuel and Chemical Storage Areas
- Roads and Other Drainage Inhibitors
- Solid Waste Management
- Buildings and Other Structures

## 1.4 Commitments

By the present, Almiq commits to minimize disturbance on site. Almiq commits to well plan and execute, in a responsible manner, an abandonment and restoration plan for its temporary facilities. Almiq makes the commitment to reclaim the site to acceptable standards.

## 1.5 General site layout and specific areas



## **1.6 Financing**

Abandonment and restoration is part of the submitted price for the construction of the Nanisivik Naval Facility, under *demobilization* item.

## **1.7 Optimal abandoned condition compatible with the surrounding undisturbed area**

Each infrastructure will be treated separately further in this document, but it is important to note that the footprints of all the infrastructures is located either within the boundaries of the actual operation area of the fuel tanks or the Canadian Coast Guard (CCG) laydown area. These areas have been disturbed for many years because of heavy mining operations. No vegetation exists within the area and the site is intended to be used for ship refueling operations afterwards.

No long term maintenance and monitoring should be required as the ship refueling operations will only begin in 2018; at which time, demobilization of temporary facilities will be completed and the site be reclaimed as it was when the contract began (July 2014) and as per Defence Construction Canada (DCC) requirements.

## **2 ABANDONMENT AND RESTORATION PLAN**

### **2.1 Buildings and other structures**

The camp installations as well as the maintenance facilities are located within the laydown area; an area already used for material storage. The camp and the garage, as well as any container or other site material, will be removed before the water license expires.

The area will be re-graded to avoid erosion and ponding and to accomodate the users of the area.

### **2.2 Roads**

Almiq will backfill and restore all Sumps to the pre-existing contour of the land.

No roads or airstrip have been created for the construction activities. Almiq will re-grade all the area to match natural contour to reduce erosion. Almiq will contour and stabilize all disturbed areas to a pre-disturbed state upon completion of work.

### **2.3 Disposal facilities**

There are no disposal facilities on the project site.

### **2.4 Waste rock disposal sites**

Unused rock will stay at the quarry site and will be managed as per information submitted in the Quarry Management Plan.

### **2.5 Petroleum and chemical storage areas and facilities**

We have located areas designated for petroleum and chemical storage at a minimum distance of thirty-one (31) metres from the ordinary High Water Mark of any Water body.

While all hydrocarbon spills will be cleaned up immediately, those areas where additional contamination is identified will be reclaimed to meet objectives as outlined in the Government of Nunavut's Environmental Guideline for Contaminated Site Remediation (2010). The use of reclaimed soils for the purpose of backfill or general site grading may be carried out only upon consultation and approval by the Government of Nunavut, Department of Environment and an Inspector.

### **2.6 Garbage, sewage and waste storage sites and facilities**

Garbage is incinerated on site at every end of day. Sewage is taken care of by the Hamlet of Arctic Bay and other waste such as hazardous wastes, waste oil, and non-combustible waste generated is stored in weather tight barrels, stored in a container located at least 31 metres away from the ordinary High Water Mark of any Water body. Almiq will backhaul all of this waste on a seasonal basis, for disposal at an approved facility. Records will be kept on-site.

### **2.7 Site drainage systems and granular material deposits**

No site drainage systems have been planned to be installed. In the event such system would be required in the course of the project, Almiq would remove any temporary culverts and restore the drainage to match the natural channel.

In the event a stockpile would remain on-site for future use purposes, it would be located at a minimum distance of thirty-one (31) metres from the ordinary High Water Mark of any Water

body such that the quality, quantity or flow of Water is not impaired, unless otherwise approved by the Board in writing.

Measures will be implemented to minimize erosion and sedimentation.

## **2.8 Other facilities or sites utilized during the construction phase**

Sediment pond used in dewatering of ground water activities: berms surrounding the area will be levelled. Membrane will be removed and disposed of as planned above. Care must be taken in the final grade design to ensure that the potential for ponding is eliminated.

## **3 Schedule of completion**

Works and final waste demobilization will be done and completed in August and September 2018.