Environmental Protection Plan

CONTRACT: **NPO1301 – Construction of Nanisivik Naval Facility**

Location: **Nanisivik, Nunavut**

Client: **Defence Construction Canada**

Company: **Almiq Contracting Ltd.**

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1. GENERAL

This document is the Environmental Protection Plan (EPP) for the proposed **Construction of Nanisivik Naval Facility, Nunavut.**

This plan aims to meet the requirements in **Section 01 35 43 of the NNF construction specifications the NIRB Screening Decision Report and Stantec Consulting Project Specific Information Requirements Report.** It is intended primarily to key personnel who have a responsibility in the field of environment. However, it serves to educate the entire staff of **Almiq Contracting Ltd.** in the protection of the environment and application of emergency measures.

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 applicable regulations, guidelines and policies 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 OHSE 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 OHSE 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 disposed of in accordance with the rules 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 OHSE 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 temporary assignment for any injured employee to facilitate return to work as soon as possible.

To support this policy, the employee as obligations:

- 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 OHSE investigations.
- Remember that the OHSE is everyone's responsibility.

Charles Deslauriers, ***General Director***

Lynda Noël, ***Assistant General Director***

1.2. Content

This environmental protection plan therefore aims to:

- Mitigate environmental risks;
- Protect the health and safety of people and staff;
- Comply with standards, regulations of and good practices and the implementation of appropriate technologies;
- Complete work activities in accordance with the principles of sound management and the use of equipment in good operating condition;
- Implement measures to monitor and control environmental risks as well as mitigation for potentially risky events for health and environment.

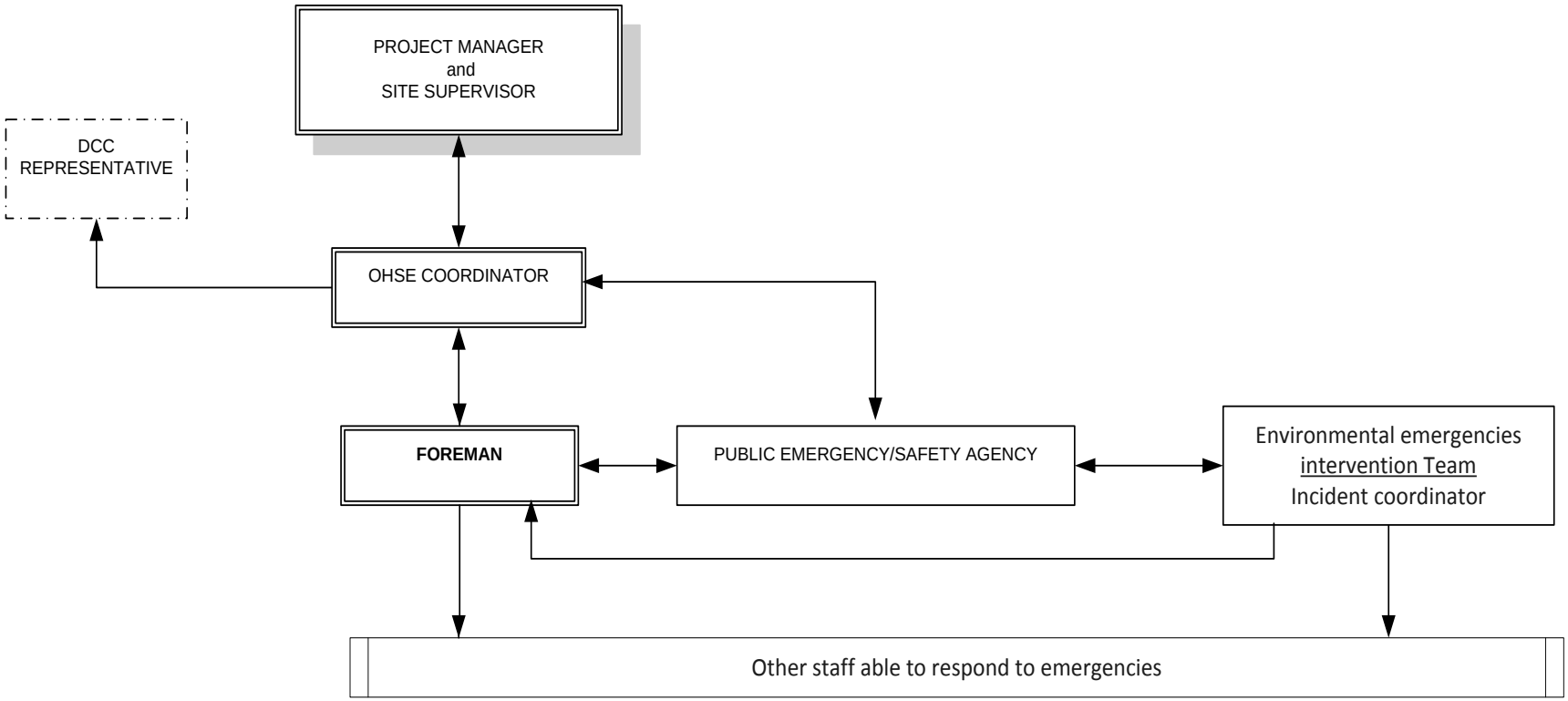
2. Roles & Responsibilities

2.1. Key personnel Responsibilities

The individuals listed below presents the key personnel responsible for the implementation and compliance with the EPP along with their responsibilities for the project. It goes without saying that all employees at the worksite must also comply with the EPP. Their responsibilities are presented in more detail in Section 2.3.

Company:	Almiq Contracting Ltd.
Project Manager:	Marc Deschênes
Superintendent:	Benoît Prévost
HSE coordinator:	Marie-Pier Tremblay (Head Office) TBD (On site)
Person in charge of staff training	TBD (On site)
Person in charge of recording and management of Transportation of Dangerous Goods (TDG) on site	TBD – Certified person

Figure 1 : Organization Chart: Hierarchy of Responsibilities in case of Emergency



***Note:** Each person in authority on the site (OHS Coordinator, foreman, supervisor, incident coordinator) is responsible for initiating the emergency services when needed and perform the necessary coordination internally.*

2.2. Staff Training

The OHSE Coordinator is responsible for the training of site personnel.

Everyone working on-site will be familiar with the emergency procedures. Knowledge of these procedures will be acquired through a mandatory orientation session and semi-annual training sessions which will specify locations of emergency response plans, emergency supply kits, contents of emergency kits and Material Safety Data Sheets. Training will include mock exercises, instruction on fire suppression, lessons on handling techniques for hazardous materials and training on appropriate use of the emergency kits. Instruction regarding evacuation procedures, designated assembly points, and emergency communication will be provided during the training sessions. Additionally, training in advanced level of first aid and WHMIS is required for all employees and contractors working on-site. The training dates, levels and expiration will be recorded dates in our in-house designed software. The training will be given by an accredited firm for WHMIS and TDG.

2.3. Emergency Response Team

An emergency response team will be created from the personnel working on the site. They will be primarily responsible for spill-related incidents, but may be required to implement any of the emergency measures in this EPP. The Team members will receive specialized intervention training awareness for emergency response. They will take care of emergencies according to their capability, or lead the activities of staff who do not have specialized training. During the operating phase, the response team will consist of personnel working on the site.

Figure 2 : EMERGENCY CONTACT LIST

Nunavut 24-Hour Spill Report Line	867-920-8130 Fax: 867-873-6924 Email: spills@govt.nt.ca
Nunavut Emergency Management 24-Hour Line	1-800-693-1666
Canadian Coast Guard Marine Spill Report 24- Hour Line	1-800-265-0237
AANDC Manager of Field Operations	867-975-4295 Fax: 867-975-6445
Government of Nunavut – Department of Environment, Manager of Environmental Protection	867-975-7748
Environment Canada – Enforcement Branch	867-975-4644
Department of Fisheries and Oceans Canada	867-979-6274
Arctic Bay RCMP (Emergencies)	867-439-1111
Arctic Bay RCMP (General lnquiries)	867-439-0123
Site Medic	581-318-2997 ext. 1001
Site Manager	581-318-2997 ext. 1005
DCC - Tamara Van Dyck, Environmental Coordinator (during construction)	613-995-9741 Cell: 613-854-0537 tamara.vandyck@dcc-cdc-gc.ca
DND - Rodney Watson, Project Manager (during construction)	613-943-8277 RODNEY.WATSON@forces.gc.ca

MARLANT - Maritime Forces Atlantic, CFB Halifax (during operation)	TBD

3. EMERGENCY SPILL RESPONSE PLAN

3.1. EXTENT & APPLICATION

This Emergency spill Response Plan applies in cases of environmental incidents. We define an environmental incident as ''accidental release of solids, liquids or gases that are potentially harmful to the environment.'' Normally, these are hydrocarbons, including fuels, oils, solvents, lubricants, etc., involving motor vehicles, mechanical equipment or containers (portable tanks, fixed or mobile tanks, pipes, etc.) present on the site, as in workshops, garages, storage tanks and storage. It also applies to fires, explosions, sounds, smells, paints, acids, bases, pesticides, gas, other chemicals and contaminated water from the site.

In case of an incident, the health and safety of people is the most important concern, which takes precedence over all other considerations. Personnel involved in an environmental incident must, above all, ensure their own safety and that of other personnel on site. It is absolutely vital to determine/confirm the nature of an incident as quickly as possible, in order to take appropriate action to ensure the safety of people and limit the environmental consequences of the incident.

3.2. SPILL RESPONSE EQUIPMENT

Several spill kits are available on the work sites (Quarry Zone, Wharf Zone and Camp/Permanent Fuel Storage Zone). Each pick-up truck is also equipped with a spill kit. Spill kits will be replaced after each use.

Permanent Fuel Storage zone, Quarry zone, Camp zone, Wharf zone:
250-L hydrocarbons spill containment kit, including:

- 1 45-gallon drum with screw top
- 10 polypropylene cushions
- 200 polypropylene pads
- 10 absorbent SOCs
- 5 10-litre bags of treated peat moss
- 2 36'' x 36'' neoprene mats
- 10 205-litre polyethylene bags
- 1 box of nitrile gloves
- Zip ties
- Coveralls
- Pairs of goggle

Wharf Zone additional equipment:

- 5 100-ft oil booms
- 60 Oil-only sorbent booms
- 200 oil-only absorbent pads (16” x 18”)

Pick-up and service vehicles:
Absorption capacity of 30 L, including:

- 20 absorbent pads (16” x 18”)
- 2 SOCs (3” x 48”)
- 1 epoxy paste (2 oz)
- 2 disposable bags (35” x 50”)

- 1 bag of peat moss
- 1 disposable mask
- Pairs of nitrile gloves
- Zip ties
- Coveralls
- Pair of goggle
- 1 nylon bag with compartments

Mechanical Equipment / hand tools:

- Pump
- Shovels, rakes, cans, hoses located at the Tool Storage Container

Communication Equipment:

Radio communication equipment will be provided to the personnel having authority and the other relevant personnel. Each vehicle is equipped with a radio communication system.

3.2.1. Potential Contaminants

During construction there are several contaminants that may be used for equipment and by crews working on the Project. Some of the anticipated contaminants are listed below:

- Gasoline
- Diesel
- Aviation Fuel
- Naval distillate
- Lubricating oils and grease
- Antifreeze and other coolants
- Hydraulic oil
- Motor oil
- Batteries
- Janitorial supplies
- Paint and corrosion protection coatings

A release of contaminants could unintentionally occur on land or in water. Possible mechanisms for a release of hazardous material include:

- Leaks or ruptures of fuel storage tanks
- Valve or line failure in systems, vehicles or heavy equipment
- Improper storage resulting in overfilling or heat expansion
- Vehicle accidents
- Spill during transfer or contaminant
- Vandalism

3.2.2. Storage On-site

Below are the details of the anticipated storage facilities, methods of disposal and preventative measures incorporated into the design of the Project to prevent spills.

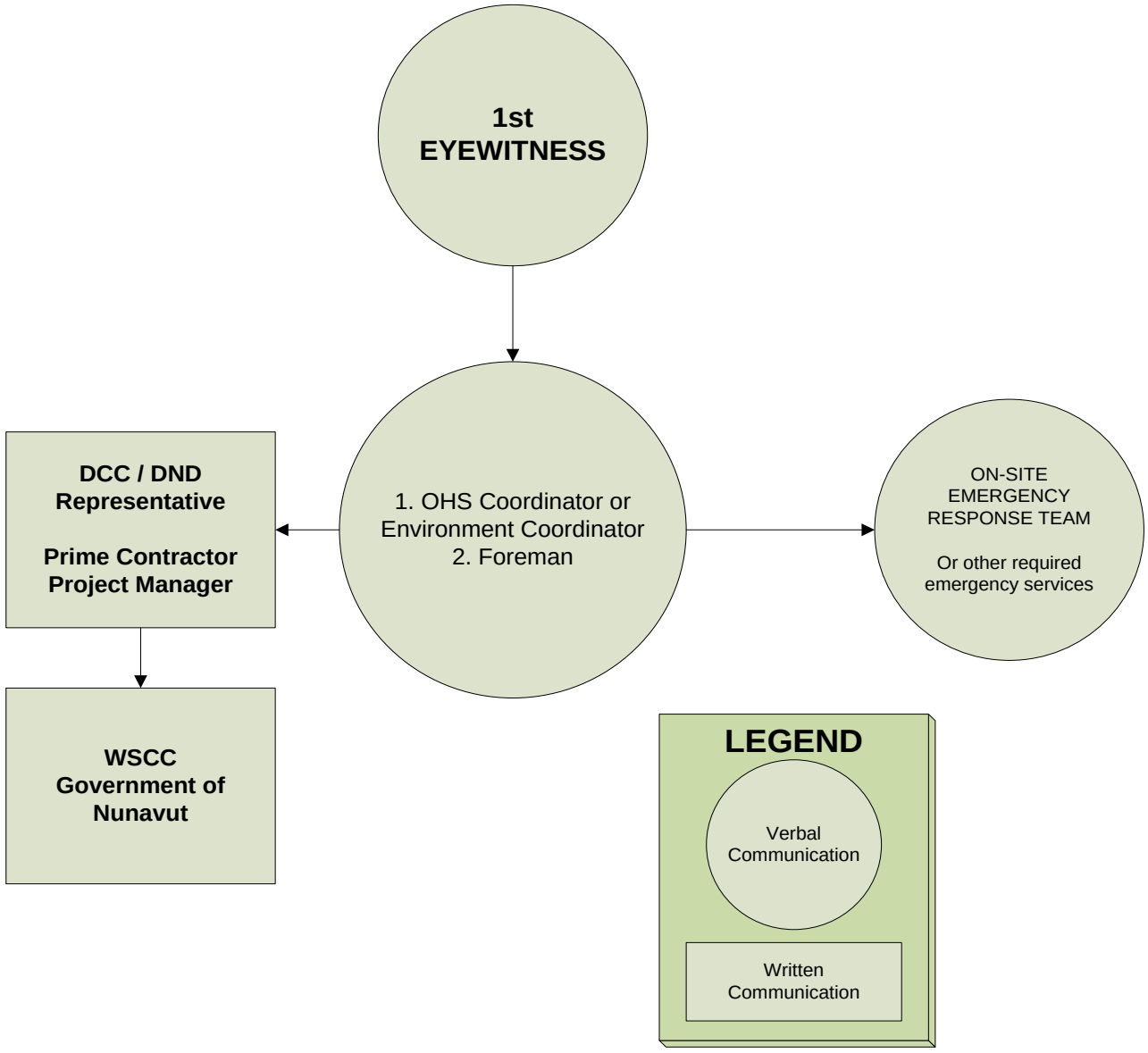
Petroleum, oils and lubricants used at the Construction stage will be stored in a specially fitted, identified and secured container. It will be placed near the garage facility. A security perimeter will be established to prevent vehicles from circulating near the container. A spill kit will be permanently located in the container or near it, as well as an inventory of the products with their MSDS.

All decanting and emptying operations will take place at the garage. Generated waste (oil and used lubricants,

filters, cloths, etc.) will be thrown in tight 45-gallon barrel, which, when full, will be identified and placed in the storage container, which will be transported in the South to a specialized and licensed firm for processing.

Petroleum, oils and lubricants used at the Operation stage will be stored in a specially fitted out container on pallets or metal racks at the Bulk Liquids Storage Facility. The POL storage area within the Bulk Liquids Storage Facility will be approximately 150 m^2 with storage capacity for up to 250 drums of POL, OWW and aviation fuel. A curbed concrete containment area or appropriate bunding will provide secondary containment. Petroleum, oils and lubricants used at the Construction stage will be stored in a specially fitted out container on pallets or metal racks. All the activities of fuelling, refueling and fuel transfer will be the object of a written procedure. Staff will be correctly trained to perform all related tasks. Inspection of the POL Storage Zone will be performed within the weekly inspection planned in the Prevention Program.

Figure 3 : Organizational structure of the environmental Intervention team



Communication in case of an emergency

The first witness of an incident shall immediately notify a responsible person, starting with the highest reporting level.

3.3. LEAK OR SPILL OF CONTAMINANTS

The Emergency Response Plan will be implemented as soon as a leak or spill is detected.

3.3.1. Action Plan

- Ensure safety of all personnel. The most important consideration, when responding to a leak or spill is to ensure the safety of all personnel. Any required action must only be undertaken if it can be done in a safe manner.
- Identify hazards and risks. Determine the source and identify the substance that was release. Assess the hazards using SDS.
- If safe to do so, stop the leak or spill (e.g., turn off pump). Use the supplies in the spill kit to contain the spill. If the spilled substance is gasoline or aviation fuel, ensure that all ignition sources are eliminated and shut off machinery in the vicinity. If contact with the fuel is a risk, Tyvek suits and chemical master gloves from the spill kit must be donned immediately.
- Use deterrent measures (e.g., ATVs, motorboats, fencing) to prevent wildlife from entering the spill site, if applicable.
- Call for help. The facility manager must be notified regardless of the size of the spill. Contact the manager via two way radio.
- Contain the spill if possible and safe to do so. Use the supplies in the spill kit (e.g., place sorbent materials over the released substance). The most effective technique will depend on the type and size of the spill.
- submit an incident report (NU spill Report).

3.3.2. Containing and Controlling a Spill

The methods for containing and controlling a spill will vary depending on the situation, media contaminated, weather, etc. The purpose of spill containment is to prevent or minimize migration and/or dispersion. The following is a basic, step-by-step approach to containing and controlling a spill:

GENERAL SPILL CONTAINMENT PROCEDURES

The following general guidelines will be followed for containment of spilled materials.

1. Assess the safety hazards.
2. Remove sources of ignition, if safe to do so.
3. Identify the product, stop source and physically contain spill as soon as safe to do so.
4. Avoid use of water or fire extinguishing chemicals on nonpetroleum product spills unless it is necessary to control a fire or prevent an explosion, since many chemicals react violently with water and chemical extinguishing agents may release toxic fumes. In addition, chemicals may be soluble in water and dispersal makes containment and clean-up more difficult.
5. Minimize traffic on contaminated soils.
6. Use natural depressions or berms constructed with materials and equipment in proximity to the site to physically contain a spill on land. Deployment of booms will be necessary on water.
7. Clean-up will not be attempted without advice from the responsible manager/contractor.
8. Any initial stockpiling of the contaminated matrices (i.e. soils) shall be done on an HDPE liner surrounded by berm to ensure no migration of contaminants takes place.

General clean-up steps for specific accidents are outlined in the next section.

SPILLS ADJACENT TO OR INTO A WATERBODY

At a minimum, the following general guidelines will be followed for containment and clean-up of most hazardous materials if spilled adjacent to, or into, a waterbody.

1. Construct berm and/or trenches to contain spilled product prior to entry into a waterbody.
2. Deploy booms and absorbent material, etc., if feasible, to contain and recover spilled material from waterbody. (Note: All vessels will deploy a spill containment boom prior to all refueling operations).
3. Recover spilled product.
4. Clean-up contaminated area including downstream shorelines.
5. Dispose of heavily contaminated soil and vegetation by storing it in sealed container and ship it down South for treatment at an approved, licensed facility. On lightly contaminated soil areas where in situ restoration is feasible, fertilize and then cultivate beyond depth of contamination. Repeat as required. (Bioremediation/ volatilization shall only be performed under the supervision and guidance of an environmental professional. Biopiles / landfarms will be constructed on top of HDPE liners and will be surrounded by secondary containment to ensure contamination and high doses of nutrients does not migrate from the treatment site. Sampling will be performed to monitor biodegradation/volatilization progress and success.)

SPILLS ON SNOW/ICE

At a minimum, the following general guidelines will be followed for containment and clean-up of most hazardous materials if spilled onto snow or ice.

1. Once a spill is identified, all sources of ignition should be turned off (e.g., no smoking, shut off engines).
2. The spilled material (e.g., gasoline, diesel, antifreeze, etc.) should be identified, if possible.
3. The affected area should be secured, ensuring the area is safe for entry and does not represent a threat to human health and safety of the spill responders. Public access of the area should be restricted.
4. If possible, identify where the spill is coming from (the source). Determine if the spill is still occurring (i.e., still leaking) or if the spillage has stopped. If the spill has not stopped, determine if it is safe to stop or control the spill (e.g., plug hole, close valve, upright container).
5. If the spill is too large to be controlled with the spill materials at hand, contact the responsible manager and report the spill, particularly since a spill occurring on snow or ice presents the potential for immediate access of contaminants into waterways.
6. If the spill is small enough to be controlled with the spill response materials at hand, prevent spilled contaminants from spreading or entering waterways by using sorbent materials or a snow/soil dyke down slope from the spill. This is especially the case with liquid contaminants (e.g. gasoline, diesel).
7. If possible with the spill response materials at hand, clean up the remaining spilled contaminant and store contaminated materials in a secure container for disposal. Impacted snow should also be stored in drums for proper disposal.

SPOT SPILLS

Since effects from small spot spills can generally be minimized if appropriate actions are implemented, all small spills of fuels or noxious materials must be reported immediately to the responsible manager. At a minimum, the following general guidelines will be followed while cleaning up spot spills of fuel or other hazardous materials.

1. Suspend activity in the immediate vicinity of the spot spill until permission to resume activity has been granted by the responsible manager.

2. The responsible manager will determine appropriate methods to remove or restore contaminated soils. Soil and vegetation heavily contaminated with petroleum products will be stored in sealed, water-proof containers before being shipped south to an approved, licensed treatment facility.
3. Locations where spot spills occur are to be flagged or otherwise marked to ensure that post-spill monitoring of the site can be undertaken.
4. Lightly contaminated soil areas where restoration is feasible will be fertilized and then cultivated to a depth below the depth of contamination, then repeated as required. (Bioremediation/ volatilization shall only be performed under the supervision and guidance of an environmental professional. Biopiles / landfarms will be constructed on top of HDPE liners and will be surrounded by secondary containment to ensure contamination and high doses of nutrients does not migrate from the treatment site. Sampling will be performed to monitor biodegradation/volatilization progress and success.)
5. All staff are expected to either clean up or report any hydrocarbon (or other chemical) stains found at their worksites. Employees in charge of these tasks to consult OHSE coordinator for appropriate procedures, depending on the product.

Once the spill has been controlled and further spreading prevented, contact the responsible manager/contractor if not already done so. The responsible manager/contractor is responsible to report the spill to the 24-Hour Emergency Spill Report Line.

WILDLIFE

Wildlife must be protected in the event of a spill. If applicable, deterrent measures (e.g., ATVs and motorboats) will be used to prevent wildlife from entering the spill site. Should the area impacted by a spill remain overnight or several days, fencing will be installed. In the event of a spill affecting wildlife, the appropriate authorities will be contacted. Once appropriate permission and direction is obtained, contaminated wildlife will be captured and contained; excessive handling will be avoided. Contaminated wildlife will be transported to a treatment facility. First aid will be avoided unless directed by the appropriate authorities. The site will not have a treatment facility for oiled/injured wildlife, but could accommodate with temporary installations. If mortalities occur, the appropriate authorities will be contacted prior to disposal.

CONTAMINATED SITE CONDITIONS

If the Contractor encounters a contaminated site condition (as defined in the General Conditions), or has reasonable grounds to believe that a contaminated site condition exists at the site of the work, the Contractor will take reasonable steps to ensure human health and safety and protection of the environment, immediately provide written notification to the DCC Representative, and take action to minimize additional cost incurrence as a result of work stoppage.

3.3.3. Spill Reporting

All spills must immediately be reported as per chart in figure 3. As required by Nunavut, the Prime Contractor will be responsible for reporting the spill to the Nunavut 24-Hour Spill Report Line at 867-920-8130.

The Nunavut Spill Report form (See Figure 8: NU Spill Report) must be completed and is available in every spill kit as well. Copies are also kept at the site office. The completed form must be submitted via email or fax to the Nunavut 24-Hour Spill Report Line. The report shall also be submitted to DND via fax or email and kept on record.

It is required on spill reports to disclose as much information as possible regarding the incident. All knowledge regarding the spill should be described in the initial spill report. Note that reporting the spill should not be delayed due to lack of information, as further information may be provided later.

Important items to document and report regarding the spill include:

- Occurrence date and time
- Geographic place
- Product spilled
- Quantity of product spilled
- Source and cause of the spill
- The status of the spill (i.e., continuing or stopped)

- Area of contamination
- Factors affecting the spill or recovery
- Hazards to person, property or environment
- Action taken, and assistance required

3.3.4. Transferring, Storing and Managing Spill-Related Waste

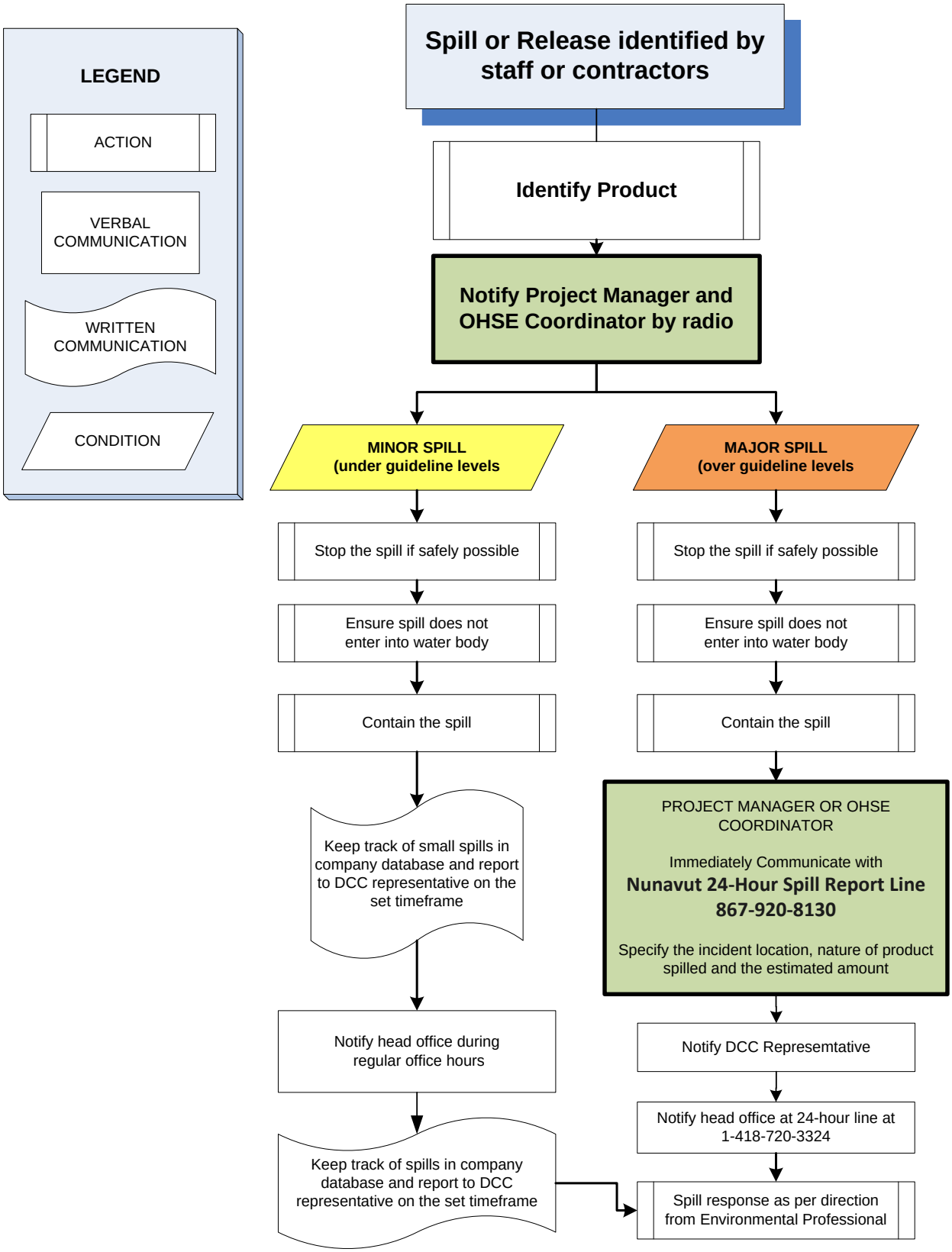
Following spill containment and reporting, the released substance will be recovered and disposed of in an appropriate manner (ISO container and stored to be shipped south). Generally, clean up begins at the edge of the spill and then moves inward. For smaller spills, sorbent materials and hand tools (cans, shovels, and rakes) will be used, whereas for larger releases on land or ice, a pump with a hose attached to a drum will be utilized.

Along with the released substance, contaminated objects such as environmental media, material used for the construction of dykes or weirs, and absorbent materials will be recovered and disposed of properly. Tools and sorbent materials used in the containment of petroleum will be sealed in waste oil containers and shipped south, to be disposed of in an approved, licensed receiving facility. Tools from the spill kits will be cleaned, decontaminated and returned or replaced back to the spill kit. Spill kits will be resupplied. Clean-up will be done at permanent maintenance installations. Waste and waste water from clean-up will be thrown into sealed, water-proof containers before being shipped south to an approved, licensed treatment facility.

3.3.5. Restoring Affected Areas

In consultation with Nunavut Department of Environment and DND, an appropriate reclamation plan will be determined. A site specific study may be necessary in order to ensure a safe level of decontamination is attained. Remediation may include contouring, replacement of soil, and revegetation.

Figure 4 : Procedures in Case of an Accidental Spill



4. WASTE MANAGEMENT PLAN

Regarding waste management, the Contractor agrees to:

1. Establish a waste disposal area for the accumulation of non-hazardous solid waste sorting at source to reduce the volume of waste and their appreciation throughout the work process (See Figure 7: General Site Layout) ;
2. Focus on reduction, reuse, recovery, recycling and disposal of non-hazardous materials and other products;
3. Not leave waste permanently on site.

4.1. DESCRIPTION OF WASTES AND HAZARDOUS MATERIALS

Waste at the Nanisivik Naval Facility will be grouped into three categories: wastewater, solid waste and chemicals and hazardous materials. The following provides a description of the sources and types of waste.

WASTEWATER

Wastewater for the construction camp (domestic sewage water) will be collected every other day and released at the Arctic Bay lagoon. The estimated peak rate of wastewater flow for the 60-person construction camp is 11,4 m^3/day (190 L/person/day). As there will be no permanent accommodations, on-site wastewater treatment is not required.

For each specific activity, waste water management will be included in the specific method that will be implemented before commencement of the works. If needed, sedimentation ponds will be set up.

SOLID WASTE

Solid waste generated during construction will be separated, compacted, stored and, where suitable, incinerated prior to transportation down South to an appropriate licensed facility. Recyclable or reusable material will be shipped for off-site recycling. The type and volumes of waste that are estimated to be generated during construction of the Nanisivik Naval Facility, based on a construction season of 4 months/year, is listed below. The estimated volume of food waste during construction, which will require incineration, is 1.2 kg/person/day.

Figure 5 : Estimated Solid Waste Generated During Construction of the NNF

Waste Type	Raw Waste Vol. (m^3/year)	Applied Procedure
Food waste	60-100	Incinerated
Paper and cardboard	40-48	Incinerated as combustible agent
Wood pallets	60-80	Donated, incinerated as combustible agent
Plastics	20-32	Sorted and recuperated (South)
Glass	8-16	Sorted and recuperated (South)
Metals	16-32	Sorted and recuperated (South)
Oily water separator sludge	88-140	Contained and processed (South)
Diesel generator waste oil	16-32	Contained and processed (South)
Waste Cooking Oil	4-8	Contained and processed (South)

1. **Solid kitchen waste and sanitary waste:** Collected and incinerated every day
2. **Construction waste, including but not limited to: demolition materials, packaging / pallets / crates:** Donated, reused or incinerated.
3. **Waste from equipment maintenance:** Generated waste (oil and used lubricants, filters, rags, etc.) will be thrown in duly identified tight 45-gallon barrel, which, when full, will be placed in the storage container to be transported to the South to a specialized firm for processing.

4. **Waste from spills:** Generated waste from spills and recovery will be thrown in duly identified tight 45-gallon barrel, which, when full, will be placed in the storage container to be transported to the South to a specialized and licensed firm for processing.
5. **Hazardous materials:** Hazardous materials will be thrown in duly identified tight 45-gallon barrel, which, when full, will be placed in the storage container to be transported to the South to a specialized and licensed firm for processing.

Waste Incineration

An incinerator has been built for the purpose of the project in compliance with the *guidelines for burning and incineration of solid waste*. Burning will not occur directly on ground to avoid vegetation and permafrost destruction. Temperature and smoke will be monitored and wind conditions will be taken into account. Waste incineration will be performed at every end of day. In case the weather conditions would not allow burning, waste, especially kitchen waste, will be locked in a container until next day. The ashes resulting from incineration will be collected regularly and kept in a barrel until it is transported south to an appropriate facility for processing.

A safe work method will be implemented for waste burning and workers will be trained as appropriate.

As per the document GUIDELINE: BURNING AND INCINERATION OF SOLID WASTE, all the recommended information will be recorded in a log and submitted to DCC.

4.2. CHEMICALS AND OTHER HAZARDOUS MATERIALS

The following chemicals are expected to be stored and used at the Nanisivik Naval Facility:

- Petroleum, oils and lubricants
- Paint and corrosion protection coatings
- Batteries
- Janitorial supplies

Petroleum, oils and lubricants used at the Construction stage will be stored in a specially designed, identified and secured container. It will be installed near the garage facility. A security perimeter will be identifieded to avoid having any vehicle circulates near the container. A spill kit will be permanently located in the container or near it, as well as an inventory of the products with their MSDS.

4.2.1. General Measures

1. Construction yards and staging areas will be selected and designed to:

    - Avoid wetlands, watercourses, sensitive vegetation, highly permeable soils, steep slopes and water supply wells.
    - Prevent vehicle incidents by providing unobstructed access (for delivery vehicles, emergency vehicles)
    - Provide safe storage areas, including secondary containment, for all liquid wastes
    - Provide unobstructed access/egress to/from emergency response materials and equipment

2. All Project staff with waste management responsibilities will be educated in accordance with regulatory requirements specific to the Project. All personnel shall understand their responsibilities for proper handling, identification, documentation and storage of wastes.

4.2.2. Prevention of Waste Release into the Environment

1. Contractors' equipment will be clean and maintained in good operating condition.
2. Contractors will be supplied with a list of required stand-by equipment and required spill response container supplies to respond to large volume spills. The stand-by equipment will be stationed in the field construction yards. Appropriate measures will be taken immediately to limit the spread of the contamination, in accordance with the Spill Contingency Plan.
3. Prior to construction kick-off, the Contractor will ensure that all spill response equipment is readily available and response materials are located on-site.
4. Fuel/service vehicles will carry:
    - Fire extinguishers
    - Shovels
    - Polyethylene sheet lining
    - Hydrocarbon spill kits as per section 3.2.
5. In case of larger/major spill, radio contact would be made and all of the spill kits would be dispatched on the spill site; and replaced by new ones as soon as possible.

4.3. WASTE HANDLING

1. Personnel who will be handling waste materials will possess valid WHMIS training.
2. Hazardous waste carriers will have current Transportation of Dangerous Goods (TDG) certification.
3. During waste handling activities, employees and/or contractors will use appropriate personal protective equipment to prevent any contact with waste material.

4.4. RECORD KEEPING AND DOCUMENTATION

Related documentation will be kept on-site for all applicable materials for all phases of the Project. See also Prevention Program for a complete list of record keeping items related to environment. Records will be kept and archived for a minimum of five (5) years after completion of the contract.

5. EROSION AND SEDIMENT CONTROL PLAN

All of the haul roads and temporary facilities will be set up in order to avoid or minimize erosion and sediment. Clear water sources and shoreline have been taken into account in our planning. Existing roads will be used and construction of temporary access road, if needed will not occur on areas that are not already disrupted by previous activities. For the shore protection works and other works near the shoreline, a special method will be designed before commencement of the works.

6. TRAFFIC CONTROL PLAN

Low traffic level is expected on the worksite. The boundaries of the site will be marked ''Off-Limits" as required. An access to sites for traditional activities will be granted to Arctic Bay residents with an appropriate procedure so that the safety of the public is not compromised. The speed limit on the site will be 15 km/h or less, as required by the level of activity on the site. All of these measures tend to protect permafrost and vegetation from equipment operations.

7. AIR POLLUTION CONTROL PLAN

All debris, materials, and trash will be contained and secured on Site in ready containers to be shipped in the South when full. Water will be used for dust control if necessary. Unnecessary vehicle and equipment emissions and noise will be reduced as engines will be turned off when not in use. All construction and road vehicles will be fitted with standard and well-maintained noise suppression devices and engine idling will be minimized.

8. INDOOR AIR QUALITY MANAGEMENT PLAN

The camp is equipped with an air-exchange system. Maintenance tests and inspections will be conducted periodically to ensure that the system is continuously in good working condition.

9. AIRCRAFT FLIGHT PATH RESTRICTION PLAN

No aircrafts are planned to come to the site. The NIRB recommendations will be applied should an aircraft (i.e. helicopter) need to arrive and land at site

10. INUIT CULTURAL HERITAGE

ARCHEOLOGICAL REMAINS

Because the site has been historically disrupted by the industrial activity that took place since the 1970's, probabilities are unlikely to find artefacts. However, should the Contractor encounters archaeological artefacts (as defined in the General Conditions), or has reasonable grounds to believe that an archeologically sensitive area has been encountered at the site of the work, the Contractor will take reasonable steps to protect the archaeological resources (stop work, site delineation, cordon off the site using barriers) and will advise the Hamlet, the Inuit Heritage Trust or any other designated organization.

CARVING STONE

The quarry site was inspected by a geologist, and due to the nature of the rock formation, probabilities to find carving stone on site are low. However, a pre-dynamiting visual inspection will be conducted every time and a soil technician will make sure that there is no change in the nature of the exploited rock. The operators will receive training on how to recognize carving stone. If ever such a rock formation would be found, it would be marked out and the quarrying/dynamiting plan would be modified to avoid the zone. The Hamlet would be informed about such a discovery and the regulations in force as well as the instructions of the governmental authorities would be followed.

11. WILDLIFE MANAGEMENT PLAN

The Contractor will ensure there is no damage to wildlife habitat in conducting its operations. The Contractor will not harass wildlife, including persistently worrying or chasing animals, or disturbing large groups of animals. The Contractor will not hunt or fish, unless proper Nunavut authorizations have been acquired. All wildlife observations will be logged and communicated to the DCC Representative.

1. The Contractor will not disturb or destroy the nests or eggs of any birds. If nests are encountered and/or identified, or observations of SARA species suggest their presence in the area, the Contractor will avoid all activities in the area until nesting is complete (i.e., likely only resume activities in the area after mid-July).

2. Setbacks of 300m for pedestrians / ATVs and 500m for industrial activities will be observed. All industrial activities will be avoided within 500 m of areas providing suitable nesting/foraging habitat for SARA species. All wildlife observations will be logged and communicated to the DCC Representative.

3. The Contractor will cease activities that may interfere with the migration or calving of caribou or muskox, until the caribou or muskox have passed or left the area. The Contractor will not block or cause any diversion to caribou migration, and will cease activities likely to interfere with migration such as movement of equipment or personnel until such time as the caribou have passed.

4. Aircraft will maintain a minimum altitude of 500 m over marine mammals.

5. Watercraft will keep a lookout for marine mammals and avoid them. If marine mammals are encountered, and remain in the area, effort will be made to avoid them and slowly navigate around their location at a reduced speed and maintain a distance. Will not accelerate within 400 m of them. Will not approach closer than 100m at any time.

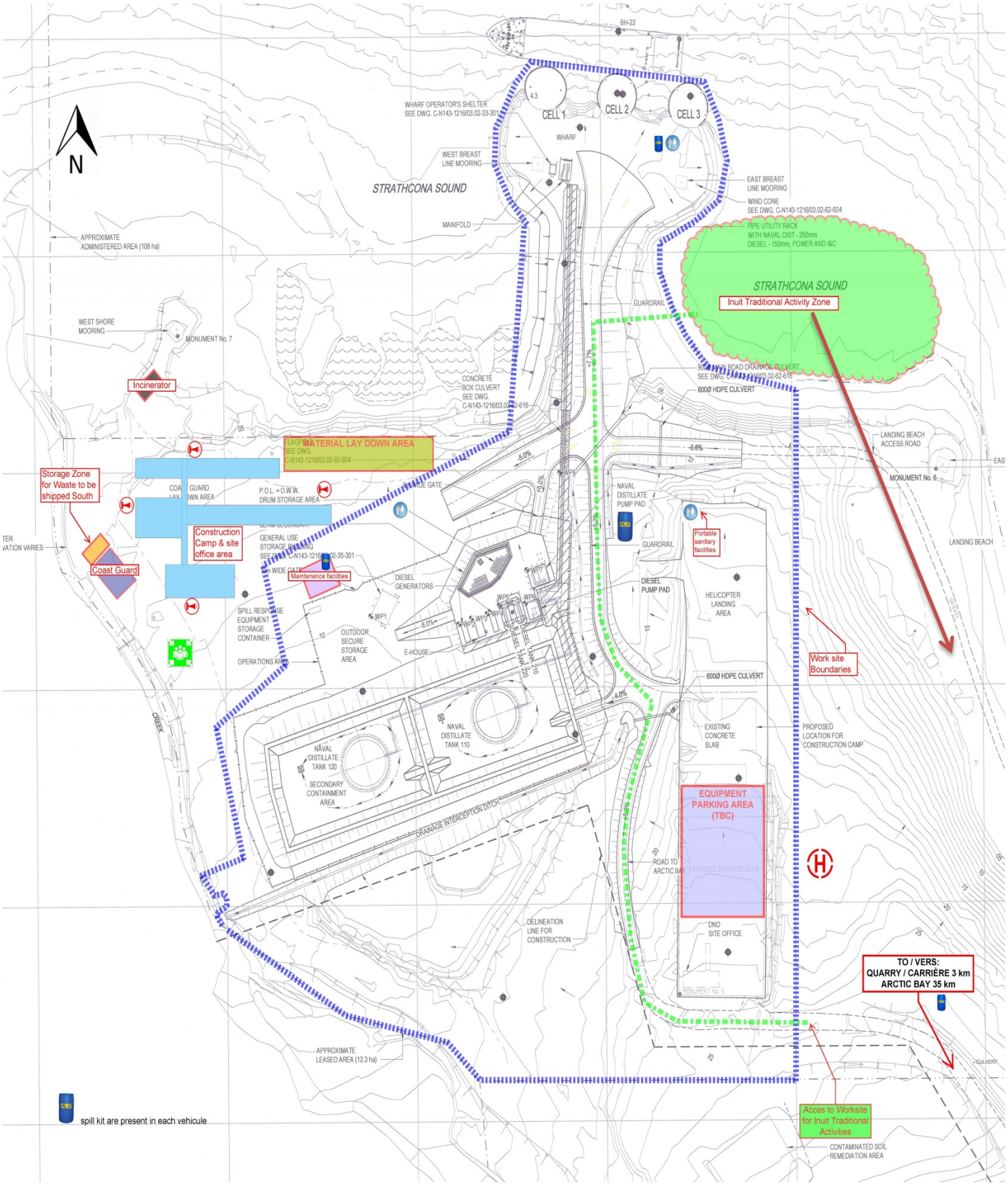
6. Blasting shall not proceed if mammals are seen within a 500m radius of the blasting site. This is to be confirmed by the wildlife monitors prior to every blast. Records are to be kept documenting these wildlife sweeps prior to blasting.

7. All project personnel will be made aware of the measures to protect wildlife receive training and/or advice on how to implement these measures.

8. Staff training will include the following procedures:

    a. procedures for SARA and active nesting sweeps by a qualified environmental professional prior to each season's Work commencing and weekly nesting sweeps during migratory bird nesting season;
    b. stop Work procedures to address wildlife (particularly species at risk) coming into close proximity to the Work area and workers;
    c. a pre-blast wildlife clearing plan for quarry activities;
    d. procedure for accommodating Inuit hunting practices in the vicinity of the Project Site;
    e. materials to aid in wildlife identification at worksite;
    f. no hunting or trapping policy.

Figure 6 General Site Layout



NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE
TEL: (867) 920-8130
FAX: (867) 873-6924
EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR	REPORT TIME	☐ ORIGINAL SPILL REPORT, OR ☐ UPDATE #	REPORT NUMBER -
B	OCCURRENCE DATE: MONTH – DAY – YEAR	OCCURRENCE TIME		
C	LAND USE PERMIT NUMBER (IF APPLICABLE)	WATER LICENCE NUMBER (IF APPLICABLE)		
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM THE NAMED LOCATION	REGION ☐ NWT ☐ NUNAVUT ☐ ADJACENT		
E	LATITUDE DEGREES MINUTES SECONDS	LONGITUDE DEGREES MINUTES SECONDS		
F	RESPONSIBLE PARTY OR VESSEL NAME	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION		
G	ANY CONTRACTOR INVOLVED	CONTRACTOR ADDRESS OR OFFICE LOCATION		
H	PRODUCT SPILLED	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER	
	SECOND PRODUCT SPILLED (IF APPLICABLE)	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER	
I	SPILL SOURCE	SPILL CAUSE	AREA OF CONTAMINATION IN SQUARE METRES	
J	FACTORS AFFECTING SPILL OR RECOVERY	DESCRIBE ANY ASSISTANCE REQUIRED	HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT	
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS			

L	REPORTED TO SPILL LINE BY	POSITION	EMPLOYER	LOCATION CALLING FROM	TELEPHONE
M	ANY ALTERNATE CONTACT	POSITION	EMPLOYER	ALTERNATE CONTACT LOCATION	ALTERNATE TELEPHONE

REPORT LINE USE ONLY

N	RECEIVED AT SPILL LINE BY	POSITION Station operator	EMPLOYER	LOCATION CALLED Yellowknife, NT	REPORT LINE NUMBER (867) 920-8130

LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC	SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN	FILE STATUS ☐ OPEN ☐ CLOSED

AGENCY	CONTACT NAME	CONTACT TIME	REMARKS
LEAD AGENCY			
FIRST SUPPORT AGENCY			
SECOND SUPPORT AGENCY			
THIRD SUPPORT AGENCY			

Figure 7 : NU Spill Report