



Kátł'odeeche First Nation

P.O Box 3060, Hay River Dene Reserve, NT X0E 1G4

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SPILL CONTINGENCY PLAN FOR QUARRY OPERATIONS

KÁTŁ'ODEECHE FIRST NATION

Introduction

This is the Spill Contingency Plan for the quarry operated by Katlodeeche First Nations, located on Highway 5, at km 44.5 (see Land Use Permit application for map co-ordinates). All contractors are required to carry a spill kit within their vehicles when working on the quarry.

Spill contingency plans and a spill kit is to be kept readily available in a company vehicle during quarry operations. This contingency plans includes initial contact numbers in the event of a spill incident, a spill response action plan, and contacts for spill response, resource inventory and training protocols.

For the purposes of work at the gravel quarry at Hwy 5, km 44.5 there will be no on-site storage of fuel. All refueling of equipment will be done using tidy tanks mounted on pickup trucks. These tanks are equipped with secondary containment systems.

Effective date of Plan: May 23, 2024

Quarry Operator

Kátł'odeeche First Nation (KFN)
PO Box 3060
Hay River Dene Reserve, X0E 1G4
(867) 874-6701

Affiliated Contractors

Naegha Zhia Ltd.
PO Box 3060
Hay River Dene Reserve, X0E 1G4
(867) 875-8383

Response Organization Description

In the event of a spill of a hazardous material on the quarry site and access road, whether access is public or private, all personnel will follow a defined response and notification, led by the Onsite Co-ordinator.

STEPS TO TAKE

Spill or release is identified by staff or public	
Assess personal safety and safety of others. Barricade area affected	
Identify spilled product	
Notify onsite co-ordinator, environmental advisor, or management contacts via 2 way radio if no cell phone communications available. If above not available notify KFN office personnel, available operators, or labour crew.	
MINOR SPILL (under guideline levels)	MAJOR SPILL (over guidelines levels)
Protect yourself (PPE). Stop the spill if safely possible.	Protect yourself (PPE). Stop the spill if safely possible
Ensure spill does not flow towards water sources. Establish berm if required. Place spill absorbents.	Ensure spill does not flow towards water sources. Establish berm if required. Place spill absorbents.
Keep track of small spills in company files for records and inspectors reference.	Ensure area is barricaded.
Recover as much of the hydrocarbons and contaminants as possible and keep area contained until clean up is completed.	Notify NWT 24-hr spill line at Ph: 867-920-8130. Supervisor or safety will make the call and forward report.
Notify office during regular office hours. Investigation will commence.	Recover as much hydrocarbons/contaminates as possible and keep area contained until clean up is completed.
N/A	Keep track of spills in company files

The Onsite Co-ordinator has the following responsibilities;

- Assume complete authority over the spill area and co-ordinate the actions of site personnel;
- Report spill to NWT Spill Line 1-867-920-8130 when required.
- Ensuring inspection of fuel tanks and pumps and preventative measures are being followed prior to the start of the work day to prevent leakages and escape of hazardous materials

Environmental Adviser has the following responsibilities;

- Provide technical advice on probable environmental effects from the spill
- Provide advice to Onsite Co-ordinator on spill response procedures
- Assist in developing any sampling, testing or monitoring of soil and water directly affected by the spill
- Once a spill has been contained, will consult with INAC or lead agency Inspector assigned to the file to determine the level of cleanup required. The Inspector may require a site specific study to ensure appropriate clean up levels are met.
- Co-ordinate all correspondence with the quarry operator, contractor and government agencies.

Spill Response Contacts

Onsite Co-ordinator

Alex Grisel, Naegha Zhia Ltd. Office: 867-874-6701

Alternate Co-ordinator: Victoria St Jean KFN Lands Director: Office: 867-874-6701

Environmental Adviser

Victoria St Jean – Director of Lands KFN: Office: 867-874-6701 or cell 867-874-8017

Other Related Contacts

Alex Grisel– CEO, KFN office 867-874-6701

Les Norn – Manager, Municipal Services, KFN 867-875-7721

Emergency Contacts

Ambulance 867 – 874-9333

Fire 867 – 874-2222

RCMP 867-874-1111

Poison Control 867-874-7100

24 hour Spill Report line 867-920-8130

24 hour pager for Spill Line 867-920-5131

Action Plan

These are the procedures that must be followed in response to a spill;

Procedures for initial action:

- Ensure safety of all personnel
- Assess spill hazards and risk
- Remove all sources of ignition
- Stop spill if safely possible e.g. shut off pump, replace cap, tip drum upward, patch leaking hole. Use the contents of the nearest spill kit to aid in stopping the spill if safe to do so. Protective gloves should be worn immediately if there is any risk of being in contact with hydrocarbons.
- Contain the spill – use the contents of the spill kit to place sorbent material on the spill, or use shovel to dig dike to contain spill. Methods will vary depending on the nature of the spill and time of year.
- Notify Onsite Contact Co-ordinator Ken Norn, 875-8383. If not available Report spills according to quantities listed at:
<http://www.enr.gov.nt.ca/programs/hazardous-materials-spills/reporting-spills> to NWT Spill Line 1 -867-920-8130

Procedures for containing and controlling a spill

- Initiate spill containment by first determining what will be affected by the spill.
- Assess speed and direction of spill and cause of movement (wind, slope, puddles of water)
- Determine best location for containing spill
- Have a contingency plan ready in case spill worsens beyond control or if the weather or topography impedes containment.
- Keep a log of all information received during the incident
- If on any water sources (pond, lake, river) Drill a hole downstream if ice thickness permits it safe (15cm min) and place absorbents in the hole for monitoring.

Specific spill containment methods for land, ice, and snow are outlined below.

1) Containment of spill on land:

Spills on land include on rock, gravel, soil and/or vegetation. It is important to note that soil is a natural sorbent, thus spills on soil are generally less serious than spills on water as contained soil can be more easily recovered. Generally spills on land occur during the late spring, summer or early fall when snow is at a minimal.

Dykes

Dykes can be created using soil surrounding a spill on land. These dykes are constructed around the perimeter or down slope of the spill. A dyke needs to be built up to a size that will ensure containment of the maximum quantity of fuel that may reach it. A plastic tarp can be placed on and at the base of the dyke such that fuel can pool up and subsequently be removed with sorbent

material or by pumping into barrels or tank. If the spill is migrating very slowly a dyke may not be necessary and sorbents can be used to soak up fuels before they migrate away from the source of the spill.

Trenches

Trenches can be dug to contain spills as long as the top layer of soil is thawed. Shovels pick axes, loader, dozer or hoe can be used depending on the size of trench required. It is recommended that the trench be dug to the bed rock or permafrost, which will then provide a containment layer for the spilled liquid. Liquid can then be recovered using a pump or sorbent materials.

2) Containment of spills on ice:

Spills on ice are generally the easiest spills to contain due to the predominantly impermeable nature of the ice. For small spills, sorbent materials are used to soak up spilled liquid. Remaining contaminated ice/slush can be scraped and shovelled into plastic bag or barrel. However, all possible attempts should be made to prevent spills from entering ice covered waters as no easy method exists for containment and recovery of spills if they seep under ice.

Dykes

Dykes can be used to contain fuel spills on ice. By collecting surrounding snow, compacting it and molding it to form a dyke down slope of the spill, a barrier is created thus helping to contain the spill. If the quantity of spill is fairly large, a plastic tarp or poly can placed over the dyke such that the spill pools at the base of the dyke. The collected fuel can then be pumped into barrels or collected with sorbent material.

Trenches

For significant spills on ice, trenches can be cut into the ice surrounding and/or down slope of the spill such that fuel is allowed to pool in the trench. It can then be removed via pump into barrels, collected with sorbent materials, or mixed with snow and shovelled into barrels or bags

Burning

Burning should only be considered if the other approaches are not feasible, and is only to be undertaken with the permission of the INAC or lead agency inspector.

3) Containment of spills on snow:

Snow is a natural sorbent, thus as with spills on soil, spilled fuel can be more easily recovered. Generally, small spill on snow can be easily cleaned up by raking and shovelling the contaminated snow into plastic bags or empty barrels.

Dykes

Dykes can be used to contain fuel spills on snow. By compacting snow down slope from the spill, and mounding it to form a dyke, a barrier or berm is created thus helping to contain the spill. If the quantity of spill is fairly large, a plastic tarp can be placed over the dyke such that the spill pools at the base of the duke. The collected fuel/snow mixture can then be shovelled into barrels or bags, or collected with sorbent materials.

Resource Inventory

A spill kit will be located on site and the contents and the spill response plan will be reviewed with crew members regularly. Heavy equipment, shovels, rakes, and poly are located on site for use when required.

Contents of spill kits, but not limited to:

- 15 hydrocarbon absorbent pads
- 2 absorbent socks (3" x 48")
- 1 plug and dyke (10oz jar)
- 3 heavy duty yellow disposal bags (33"x35"x6mil)
- 2 pair of PVC oil resistant gloves
- 2 pairs of plastic safety goggles
- 1 spill clean-up instruction sheet
- 20 l. pail

Other equipment

- 1 shovel
- 1 rake

Storage and Transfer

- Store all contaminated water, snow/ice, soils, cleanup supplies, and used absorbent materials in closed labeled containers.
- Store containers in ventilated area away from incompatible materials.

Disposal

The Environmental Adviser will consult with Federal and Territorial environmental authorities for advice on disposal sites for contaminated materials and before disposing of contaminated materials.

Spill Response Training Protocol

The Onsite Co-ordinator will conduct training for all site personnel, including equipment operators, drivers and labourers.

Training will include the following instruction:

- The initial spill response procedures to follow in the event of spills
- Review the Organization Spill Response Contacts
- Location and use of emergency equipment to respond to spills
- Safe operation and maintenance of equipment and tools to minimize the potential for spills
- Operational procedures to limit the potential and impact of spills
- Safe handling and storage of contaminated material
- Monthly safety discussions to address work hazards

APPENDICES

1. NT/NU Spill Report Form

http://www.enr.gov.nt.ca/sites/default/files/128-spill_report_form_e_fillable_1.pdf

2. MATERIAL SAFETY DATA SHEETS



Canada

NT-NU SPILL REPORT

OL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-8924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH - DAY - YEAR		REPORT TIME		<input type="checkbox"/> ORIGINAL SPILL REPORT OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
	B OCCURRENCE DATE: MONTH - DAY - YEAR		B OCCURRENCE TIME			
C	LAND USE PERMIT NUMBER (IF APPLICABLE)			WATER LICENCE NUMBER (IF APPLICABLE)		
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION				REGION <input type="checkbox"/> NWT <input type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN	
E	LATITUDE			LONGITUDE		
	DEGREES	MINUTES	SECONDS	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 EQUIPMENT	
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	EMPLOYER	LOCATION CALLED	REPORT LINE NUMBER	
		STATION OPERATOR		YELLOWKNIFE, NT	(867) 920-8130	
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED	
AGENCY	CONTACT NAME		CONTACT TIME	REMARKS		
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						

MATERIAL SAFETY DATA SHEETS

TABLE OF CONTENTS

Definition:

MSDS – Material Safety Data Sheets. Used in WHMIS 1988

SDS – Safety Data Sheet. Newer WHMIS 2015 (GHS).

Product, Manufacture. Date of issue:

1. ABC Fire Extinguisher, Strike First. Feb.2015
2. ACE-Start Starting Fluid, Kleenflo. Jan.2015
3. Acetone, Recochem. July 2015
4. Acetylene, Dissolved, Praxair. Feb.2016
5. Additive Friction Modifier, Ford. June 2016
6. Air Brake Antifreeze, Recochem. Nov.2015
7. Antifreeze Gold, Ford. Nov.2015
8. Antifreeze MOBIL DELVAC EXTENDED LIFE 50-50 PREDILUTED, Esso. Jan.2016
9. Antifreeze MOBIL HEAVY DUTY SCA PRECHARGED 50-50 PREDILUTED, Esso. Jan.2016
10. Antifreeze MOBIL PERMAZONE, Esso. Jan.2016
11. Antifreeze Mobile Permazone 50-50 Prediluted. Jan.2016
12. Argon.. compressed, Praxair. Mar.2014
13. Brake & Parts Kleen, Kleenflo. Jan.2015
14. Bug Wash, Recochem. July 2015
15. Carbon-dioxide, Praxair. July 2016
16. Diesel Exhaust Fluid (DEF), Recochem. Oct.2015
17. Dot 3 Heavy Duty Breake Fluid, Kleenflo. Jan. 2015
18. Gasoline Unleaded, Esso. Feb.2015
19. Heavy Duty Antifreeze - Coolant, Recochem. Nov.2015
20. Kleen-Start Starting Fluid, Kleenflo. Jan.2015
21. Krown KL73 Lubricant, Empack Spraytech. Jan.2015
22. Krown KP53 Penetrant, Empack Spraytech.Mar.2015
23. Lafarge Portland Cement (cement), Lafarge. Apr.2015
24. Lafarge Ready Mix Concrete (Concrete), Lafarge. Mar.2014
25. Lead Acid Battery Wet, Filled With Acid, East Penn Man. May.2015
26. MasterAir® AE 90, BASF. Jan.2014
27. MasterGlenium 3030 also GLENIUM 3030 NS, BASF. Mar.2016
28. Methyl alcohol, Recochem.Dec.2014
29. Mini Delayed Set & Standard Delayed Set, Fritz-Pak. May.2015
30. Nitrogen..compressed, Praxair. June 2015
31. Oxygen compressed, Praxair. June 2015
32. Propane, Superior. Jan.2014
33. R.V. Plumbing Antifreeze, Recochem. May.2016
34. Safe -T-Brake, Kleenflo. Jan.2015
35. Spray Nine, Permatex. Sept.2015
36. Super Air Plus, Fritzpak. May.2015
37. Super Slump Buster, Fritzpak. May.2015
38. TRMCLD RUST PRIMER RED Oxide, Rust-Oleum. Aug.2015
39. TRMCLD FLAT BLACK, Fust-Oleum.Aug.2015

40. TRMCLD HI HEAT ALUMINUM, Rust-Oleum. Sept. 2015
41. TRMCLD HI HEAT GLOSS Black, Rust-Oleum. Aug. 2015
42. TRMCLD HI HEAT GLOSS white, Rust-Oleum. Aug. 2015
43. TRMCLD RUST PRIMER GREY, Rust-Oleum. Aug. 2015
44. United 101 Moisture Barrier and Electrical Lubricant, United. Apr. 2015
45. VARSOL™ DX 3139 SOLVENT, Esso. Jan. 2015
46. WINDEX® ORIGINAL GLASS CLEANER, Johnson. Aug. 2015
47. WINDSHIELD WASH -40°C, Recochem. Sept. 2015

Read and follow all labels and directions. Inform your supervisor or safety department if you find any outdated M(SDS). Without delay, notify your supervisor or safety department if you come across any chemicals/materials which are not listed.