

## Appendix D- Spill Response Plan

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**SPILL RESPONSE PLAN FOR PETROLEUM PRODUCTS  
(FUELS) AND SEWAGE**

**SELKIRK FIRST NATION LONG TERM SEWAGE DISPOSAL  
FACILITY**

**2007**

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## 1.0 Introduction

This Spill Response Plan is a guide for the planned course of action in the event of a spill or leakage of petroleum products. In addition, this plan outlines the procedures to be followed in the event of spill of wastewater or wastewater sludges. Safety procedures for personnel and for proper equipment usage are discussed within this plan.

Parts A and B of this plan outline procedures to be followed in the event of a petroleum product spill and sewage spill, respectively. A list of contact agencies and phone numbers is provided below in Table 1.

<b>24 Hour Yukon Spill Report Line</b>	<b>(867) 667-7244</b>
<b>Ambulance</b>	<b>(867) 537-4444</b>
<b>YG Department of Community Services</b>	<b>(867) 667-3553</b>
<b>YG Environmental Health Services</b>	<b>(867) 667-8321</b>
<b>YG Environment Water Resources</b>	<b>(867) 667-3145</b>
<b>Selkirk First Nation</b>	<b>(867) 537-3331</b>

## 2.0 PART A – PETROLEUM PRODUCT SPILLS

For the purposes of this plan, a “**spill**” is defined as:

“Petroleum product or lubricant which is poured, spilled, or pumped onto the ground or into water, by faulty conveyance or transfer, overturned vehicles or equipment, or through human error or negligence.”

Severity rating:

Minor – More than 100 litres and Less than 400 litres

Major – More than 400 and Less than 1,000 litres

Emergency - More than 1,000 litres

A “**leak**” is defined as:

“Passing of a petroleum product through a breach, tear or puncture in a container, or receptacle at a rate of less than 10 litres per minute.”

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## **2.1 Reporting Procedures**

The following two levels of reporting are required by any individual who locates a spill or leak:

### **2.1.1 Report to a Supervisor**

Refers to the direct supervisor in charge of the individual who is located the spill or leak.

### **2.1.2 Report to the Owner**

The Owner shall immediately be given details of any leak or spill. It is the Owner's responsibility to ensure protection of human health and safety, provide directions to stop or contain spills, and report the spill (if necessary, see severity rating and notes above) to affected agencies prior to investigating the spill themselves.

### **2.1.3 Affected Agencies**

Affected Agencies shall all be contacted through the 24-hour emergency spill response line at **(867) 667-7244**. The following information shall be conveyed to the affected agencies through the 24-hour Emergency Spill Response Line. This information should be documented on the "Spill Reporting Form" provided in Appendix A of this document.

- General Location of the Spill or Leak: Nearest highway, town, major water body, etc.
- Time of Spill.
- Specific Location of the Spill or Leak: Give nearest community location, kilometre location on highway if known
- Severity of Spill or Leak:  
Minor – more than 100 litres and less than 400 litres  
Major – more than 400 litres and less than 1,000 litres  
Emergency - more than 1,000 litres
- Type of Spill:  
Total loss/leakage  
Overturned vehicle or tanker (plus name of transport company)  
Ruptured tank  
Lost drum
- Product Spilled:  
Diesel Fuel (Identify Grade)  
Gasoline  
Lubricant (Identify Grade)  
Other (Identify)
- Nearest Water course or Body of Water:  
Identify by name and description the nearest watercourse, pond or lake, with an approximate distance to the spill. As well describe the soils conditions and direction of probable flow for the spilled product.
- Potential to enter surface water.
- Fire Hazard.

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- Hazard to life and limb, injuries.
- Environmental effect expected, if any.
- Equipment and Clean-up consumables on hand.

Response by Affected Agencies depends upon the location of the possible spill and will vary. However, they will be coordinated by phoning the Emergency Response Spill Line **(867) 667-7244**. For the purpose of this Plan, it is recommended that only one call be made to government or other agencies using the 24 hr spill line. Other affected parties may include organizations associated with fuel supply and transport companies. Most major suppliers in the Yukon are members of the Transportation Emergency Assistance Plan (TEAP). One of the responsibilities of this organization is the sharing of resources, consumables, equipment and personnel in the event of a spill. The transporter is responsible for contacting TEAP in the event of a spill. The Canadian Transport Emergency Centre (CANUTEC), a branch of Transport Canada, can also be contacted for 24 hr technical advise on Dangerous Goods, as needed. The CANUTEC

- help line for dangerous goods is **0 (613) 996-6666 (collect)**.

## ***2.2 Emergency Spill Response Procedure***

The first person on the scene is to do the following:

- 1) PROTECT human health and safety, including the elimination of possible ignition sources, and the warning/removal of bystanders;
- 2) STOP the continuing flow of product providing it is safe to do so;
- 3) CONTAIN the spilled material;
- 4) CALL the Supervisor and Owner who will then contact the spill line **(867) 667-7244** and report the location and nature of the spill;
- 5) RECOVER product and contaminated soil/ other materials;
- 6) REPORT in writing on the spill response form in Appendix A of this document and give to supervisor;
- 7) REMAIN at the site and assist with response as needed when help arrives.

## ***2.3 Response for Gasoline Spills***

If in water and if safe to do so:

1. Stop or reduce discharge if safe to do so by plugging, uprighting, adjusting valves, or other suitable method.
2. If possible, contain discharge by booming using commercial boom material, logs, or other material at hand.
3. If in rapidly flowing water, direct to quieter backwater using booms to deflect material.
4. Ensure that you have reported the spill.
5. Remove from water by skimming, using absorbents, and collect in suitable container (tanks, drums, plastic lined depression in ground or snow). **See Appendix B of this document for a listing typical spill response tools/equipment.**

**NOTE: IN THE EVENT MATERIAL IS SPILLED DURING VERY WARM WEATHER AND THERE IS DANGER OF FIRE DUE TO FUMES, DO NOT ATTEMPT TO CONTAIN PRODUCT ON WATER. ALLOW PRODUCT TO DISPERSE AND EVAPORATE.**

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6. Dispose absorbents by recycling or incineration if conditions are suitable and after consultation with environmental authorities and/or forestry officials contacted through the Emergency Spill Response Line.

If gasoline spill is on land and it is safe to do so:

1. Stop, or reduce discharge if safe to do so by plugging, uprighting, adjusting valves or other suitable method.
2. Contain spill by earth, snow and ice dyke or other barrier, possible trenching or creating a lined sump down gradient from the spill source.
3. Ensure that you have reported the spill.
4. Remove fuel from containment area with pumps, vacuum equipment and place in appropriate containers. Ensure equipment intrinsically safe (does not have a source of ignition/spark).
5. Absorb residual liquid on natural or synthetic absorbents (e.g. 3M products).
6. Remove contaminated soils in the spill site to an appropriate disposal site if spill located near water supply or stream/river course or for aesthetic reasons.
7. Dispose of contaminated fuel by recycling or incineration. In situ, incineration may be possible if permission granted from environmental and forestry officials contacted through the Emergency Spill Response Line.

#### ***2.4 Response for Diesel Spills***

If in water and if safe to do so:

1. Stop, or reduce discharge if safe to do so by plugging, uprighting, adjusting valves, or other suitable method.
2. If possible, contain discharge by booming using commercial boom material, logs or other material at hand.
3. If in rapidly flowing water, direct to quieter backwater using booms to deflect material.
4. Ensure that you have reported the spill.
5. Remove from water by skimming, using absorbents, and collect in suitable container (tanks, drums, plastic lined depression in ground or snow).
6. Dispose by recycling or incineration, if conditions are suitable and regulatory authorities grant permission.

If on land and it is safe to do so:

1. Stop or reduce discharge if safe to do so by plugging, uprighting, adjusting valves or other suitable method.
2. Contain spill by diking with earth, snow or ice or other barrier, possible trenching or creating a lined sump down gradient from the spill source.
3. Ensure that you have reported the spill.
4. Remove fuel from containment area with pumps, vacuum equipment and place in appropriate containers.
5. Absorb residual liquid on natural or synthetic absorbents (e.g. 3M products).
6. Remove contaminated soils in the spill to an appropriate disposal site if spill site is located near water supply or stream/river course or for aesthetic reasons.
7. Dispose of contaminated fuel by recycling or incineration. In site, incineration may be possible if permission granted from environmental and forestry officials.

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## **3.0 Hazardous Materials Information**

### **3.1 Gasoline**

#### **Characteristics**

- Flammable
- Solubility in water 1 to 100 ppm
- Floats
- Flash point - 38 to -43 C

#### **Human Health**

- Moderately toxic by inhalation. Avoid prolonged exposure to fumes

#### **Environment**

- Harmful to aquatic life. Fish toxicity: 5 - 40 ppm rainbow trout

#### **Protective Clothing**

- No specific recommendations. Protective clothing is required.

### **3.2 Diesel**

#### **Characteristics**

- Combustible/Flammable liquid
- Insoluble in water (30 ppm)
- Floats
- Flash point 52 to 96 C

#### **Human Health**

- Low toxicity by all routes

#### **Environment**

- Fish toxicity: 10 ppm rainbow trout; 2 ppm for grass shrimp

#### **Protective Clothing**

- Gloves and boots made from neoprene or butyl rubber

## **4.0 PART B SEWAGE SPILLS**

For the purposes of this plan, a "sewage spill" is described as:

"RAW SEWAGE / SEPTAGE / SEWAGE SLUDGES" which may contain high concentrations of nutrients, toxic organic compounds or biological parameters; or "PRIMARY TREATED SEWAGE" which has a lower concentration of gross solids, grease and other floatables, which is poured, spilled or pumped into a non-designated storage area or into a water body, by faulty conveyance or transfer, overturned vehicles or equipment, or through human error or negligence."

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The severity rating for a spill of sewage is dependant upon the level of treatment and location of spill. A spill entering a watercourse or on land is reportable at any volume. The severity of the spill is dependant on the level of treatment, however the following broad severity rating has been developed to assist in classifying a spill:

#### **Severity Rating for Sewage**

Entering Water Courses:

Reportable – Any quantity

Minor – More than 100 litres and less than 1000 litres

Major – More than 1000 litres and less than 4000 litres

Emergency – More than 4000 litres

Spill Over Land:

Reportable – Any quantity

Minor – More than 500 litres and less than 2000 litres

Major – More than 2000 litres and less than 5000 litres

Emergency – More than 5000 litres

A “leak” is described as:

“passing of wastewater product through a breach, tear or puncture in a container, at a rate of less than 10 litres per minute.”

### **4.1 Reporting Procedures**

The following two levels of reporting is required by any individual who locates a spill or leak:

#### **4.1.1 Report to a Supervisor**

Refers to the direct supervisor in charge of the individual who located the spill or leak.

#### **4.1.2 Report to the Owner**

The Owner shall immediately be given details of any leak or spill. It is the Owner's responsibility to ensure protection of human health and safety, provide directions to stop or contain spills, and report the spill to affected agencies prior to investigating the spill themselves.

#### **4.1.3 Affected Agencies**

Affected Agencies shall all be contacted through the 24-hour emergency spill response line at **(867) 667-7244**. The following information shall be conveyed to the affected agencies through the 24-hour Emergency Spill Response Line. This information should be documented on the “Spill Reporting Form” provided in Appendix A of this document.

- General Location of the Spill or Leak  
Nearest highway, town, major water body, etc.
- Time of Spill
- Specific Location of the Spill or Leak:  
Give nearest community location, kilometre location on highway if known
- Severity of Spill or Leak

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Minor, Major or Emergency as determined by the severity rating scale.

• Type of Spill:

Total loss/leakage

Overturned vehicle or tanker (plus name of transport company)

Ruptured tank

Dike failure

• Product Spilled:

Diesel Fuel (Identify Grade)

Gasoline

Lubricant (Identify Grade)

Other (Identify)

• Nearest Water course or Body of Water:

Identify by name and description the nearest watercourse, pond or lake, with an approximate distance to the spill. As well describe the soils conditions and direction of probable flow for the spilled product.

• Potential to enter surface water

• Hazard to life and limb, injuries

• Environmental effect expected, if any

• Equipment and Clean-up consumables on hand

If the Affected Agencies vary depending upon the location of the possible spill, they will be coordinated by phoning the Emergency Response Line. For the purpose of this Plan, it is recommended that only one call be made to government or other agencies.

## ***4.2 Emergency Spill Response Procedure***

### **4.2.1 Response for Sewage Spills**

If in water and it is safe to do so:

1. Stop, or reduce discharge by plugging, uprighting, adjusting valves, filling dike material or other suitable method.
2. If possible, contain discharge by diverting flow to quieter backwater using commercial boom material, logs or other material at hand.
3. Ensure that you have reported the spill.
4. Remove from water by pumping, and collect in suitable container (tanks, drums, plastic lined depression in ground or snow).
5. Dispose of sewage in the exfiltration ponds.

If on land and it is safe to do so:

1. Stop or reduce discharge by plugging, uprighting, adjusting valves, filling in dike material or other suitable method.
2. Contain spill by diking with earth, snow or ice or other barrier, possible trenching or creating a lined sump down gradient from the spill source.
3. Ensure that you have reported the spill.

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4. Remove sewage from containment area and collect in suitable container (tanks, drums, plastic lined depression in ground or snow). If public health is a concern add diluted bleach to the sewage to destroy any pathogens within the sewage.
5. Dispose of sewage in the exfiltration ponds.
6. Remove surface layer of soil and spread out in the area suggested/designated by the Affected Agencies through the 24-hour emergency spill response line.

#### **4.2.2 Handling Procedures for Handling Sewage**

Human sewage can contain high concentrations of pathogenic (disease-causing) microorganisms (bacteria, protozoa, viruses), which can cause serious short or long term health effects. Gloves and masks should be worn during the transfer of the sewage to and from the haul truck (eductor) and during handling of equipment at the sewage lagoon. Read the equipment manufactures instructions before use of any equipment and obtain instruction as to the proper settings for valves, piping, etc. Government of Yukon's "*Standards for Transportation of Sewage*" should also be read and followed. Hands and face should be washed with anti-bacterial soap after any procedure in which skin comes in contact with the sewage. Wash any body parts, clothes or equipment on which sewage has been spilled. If the sewage is accidentally ingested, contact the nursing station immediately. Ensure that there is a first aid kit, including bandages and disinfectant in case of minor cuts during equipment handling.

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**APPENDIX A Spill Response Plan for Petroleum Products and  
Sewage**

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# SPILL RESPONSE FORM

1) Type: (check)  Oil  Gasoline  Diesel  Sewage   
Other (name) \_\_\_\_\_

2) Specified Substances: Quantity: \_\_\_\_\_

3) Source (Company): \_\_\_\_\_

4) Date of Incident: \_\_\_\_\_ Time: \_\_\_\_\_

5) Roadway Kilometre Location: \_\_\_\_\_

6) Specifics of Location: \_\_\_\_\_

7) Cause of Incident (e.g.: truck overturn): \_\_\_\_\_

8) Reason: (e.g.: poor road conditions): \_\_\_\_\_

9) Weather condition in area: Temperature \_\_\_\_\_ Wind \_\_\_\_\_ Precipitation \_\_\_\_\_

10) Fish Kill: Yes  No  Bird Kill: Yes  No

11) Fire Hazard: \_\_\_\_\_

12) Threat to drinking water: \_\_\_\_\_

13) Who to contact at the scene:

Company: \_\_\_\_\_

Phone: \_\_\_\_\_

14) General Comments: \_\_\_\_\_

15) How to prevent recurrence: \_\_\_\_\_

16) Action taken to date:

Containment: \_\_\_\_\_

Clean up: \_\_\_\_\_

Reported to:

Name: \_\_\_\_\_

Dept.: \_\_\_\_\_

Phone: \_\_\_\_\_

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**APPENDIX B List of Spill Response Equipment**

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## LIST OF SPILL RESPONSE EQUIPMENT

- **Absorbents** (For Petroleum Hydrocarbon {Fuels, Lubricants, and Solvents} and Wastewater)

- o Booms
- o Sheets
- o Towels
- o Absorbent granules

- **Contaminated Soils Recovery Tools**

- o Shovels
- o Picks
- o Excavators
- o Loaders
- o Trucks

- **Liquid Recovery Tools**

- o Pumps
- o Containers
- o Vacuum / Eductor Truck

- **Fire Suppression Equipment**

- **Personal Safety Equipment**

- o Protective Clothing
- o Eye Protection
- o Breathing Apparatus

*Note:*

*This is by no means an exhaustive list of materials and tools that can be assembled and used for spill response.*

*More information on spill response equipment and equipment suppliers can be found on the Internet. Suppliers of this sort of equipment and material can also be found in Whitehorse.*

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