# ENVIRONMENTAL EMERGENCY PLAN (E2P)

For Petroleum and Allied Petroleum Products

# CFS ALERT

## TANK SYSTEM #: EC00002535

## PRIN TANK #: 28 tanks

## Tanks DRMIS #:0011-K010-K0001 to K0031

## CONTENTS: DIESEL – DF8

## All Location on the Station

**Immediately contact Smokey at ext. 3300 or Bandit at ext. 3301, if spill technical assistance is required or the spill has occurred off the hard surface, or the spill has entered a waterway.**

**Copies of E2P: Located at or near the tank, Fire Department, Site Manager Office,**
**8 Wing Environmental Management Office**

*This emergency plan is required under the Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations (STS Regs), s. 30 to 32. Pursuant to the Canadian Environmental Protection Act, 1999.*

***Do not*** **mix contaminated soil with existing soil in the BIOPILE**

**Wing Environmental Management is responsible for any E2P updates**

# AMENDMENT PAGE

Any changes to tanks, pipes, secondary containment or content of tank, MUST have prior approval from *8 Wing Environmental Management Office*. 8 Wing Environment Office must report any changes to the Federal Regulatory Overseers as per legislation. All maintenance records MUST be stored with the tank and a copy sent *to 8 Wing Environmental Management Office.*

| DATE | NAME | CHANGE | DATE SENT TO 8 WING ENV |
|---|---|---|---|
| 21 Dec 2010 | A. Tam | Insert image of vent pipe; overfill & vent pipe warning p.3 | 21 December 2010 |
| 10 May 2011 | Cpl Riehl | p.3 – Updated tank system information | 10 May 2011 |
| 14 Jan 2012 | Cpl Riehl | Created Tank System Env. Emerg. Plan (EEP) | 21 November 2011 |
| 25 July 2012 | A. Tam | Updated E2P. Recommended changes by EC, Curtis Didham | 25 July 2012 |
| 16 Oct 2012 | Don Kovanen | Update-Tank K-15604 decommissioned and replaced with a Myers tank. | 16 October 2012 |
| 21 May 2014 | MWO St-Onge | Updated contacts | 21 May 2014 |
| 16 Jun 2015 | A. Tam | Added-New Day Tank K-627356 to replace K10700 | 16 June 2015 |
| 19 Dec 2016 | Mr. Gilles St-Onge | Updated Contains | 20 December 2017 |
| 7 Nov 2018 | Mr. Gilles st-Onge | Updated Contains | |
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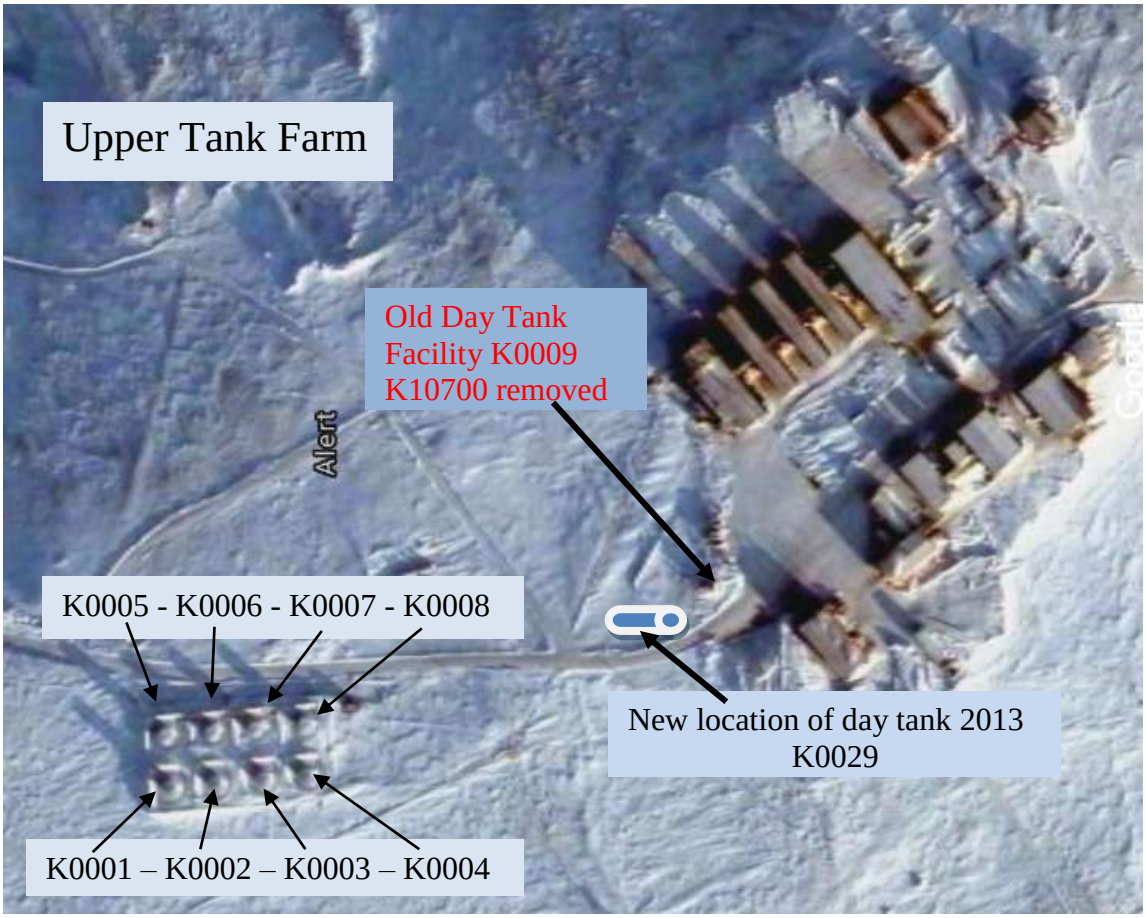
**CHANGES INCLUDE, PERSONNEL AND CONTACT INFO, *AS WELL*.**

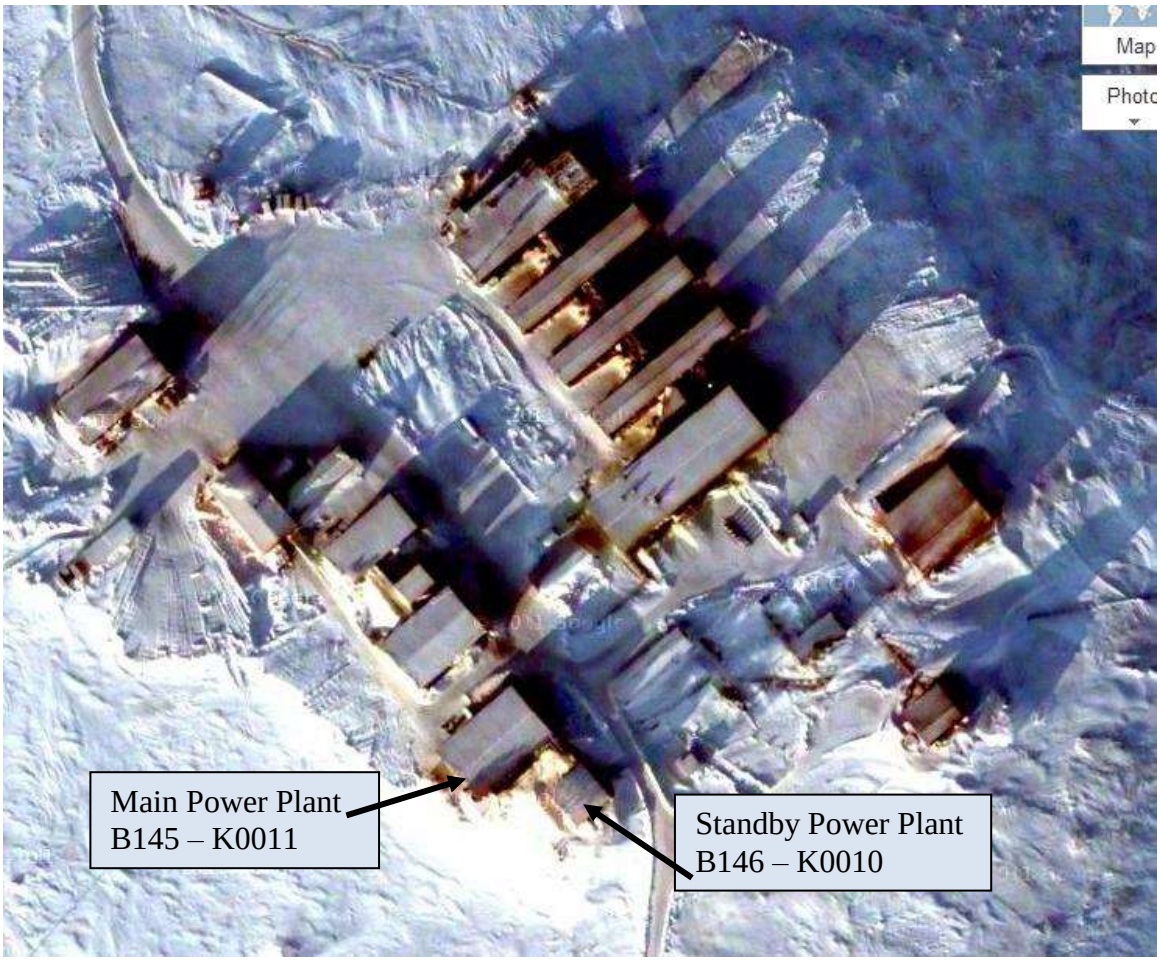
# TABLE OF CONTENTS

# 1. PROPERTIES AND CHARACTERISTICS

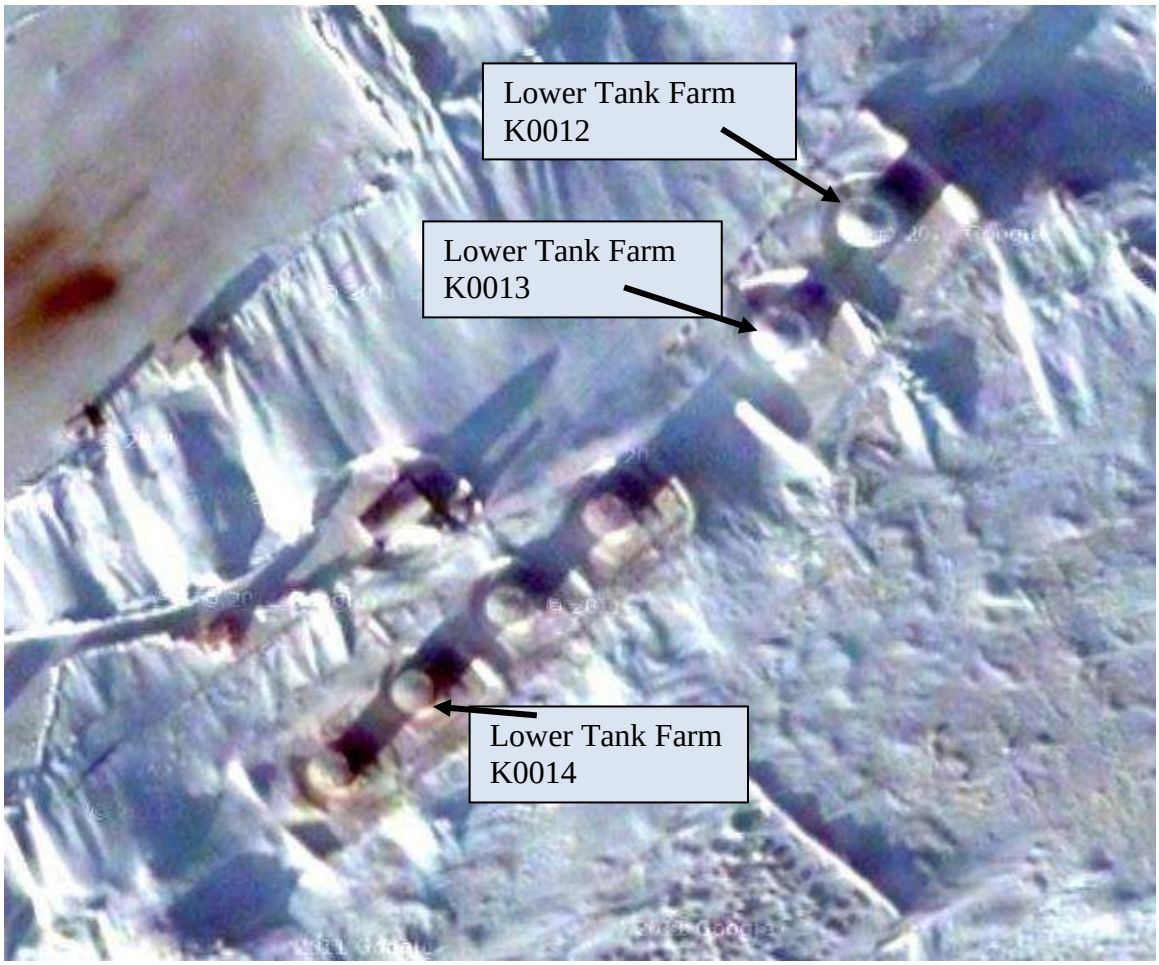
Site Maps and List of Tanks in system **EC-00002535**, to accommodate the Station Domestic Fuel (DF8 fuel) for generators and heating systems.



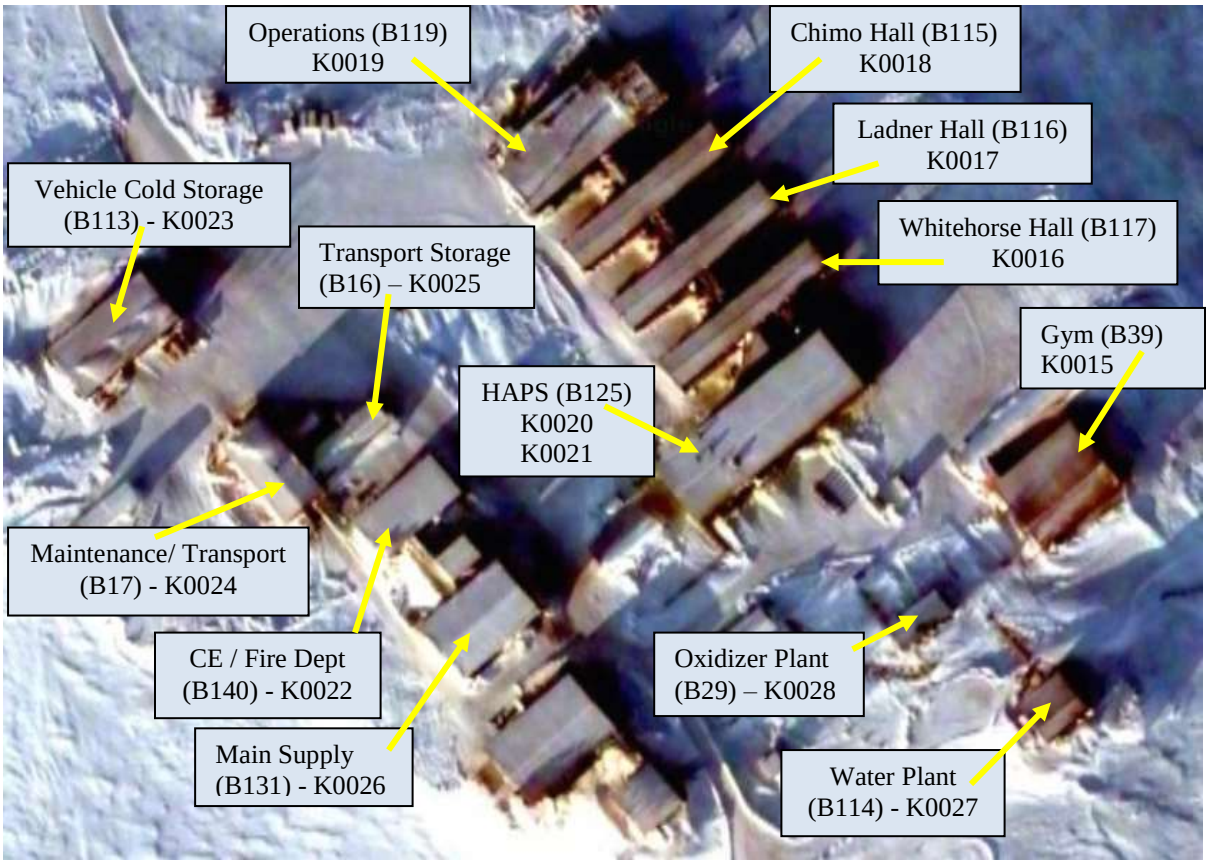

| | | |
|---|---|---|
| 0011-K010-K0001 | K10685 | Upper Tank Farm N82.501873, W-62.362784 |
| 0011-K010-K0002 | K10686 | Upper Tank Farm N82.502125, W-62.362859 |
| 0011-K010-K0003 | K10687 | Upper Tank Farm N82.502423, W-62.363109 |
| 0011-K010-K0004 | K10688 | Upper Tank Farm N82.502675, W-62.363357 |
| 0011-K010-K0005 | K10689 | Upper Tank Farm N82.501897, W-62.360447 |
| 0011-K010-K0006 | K10690 | Upper Tank Farm N82.502172, W-62.360698 |
| 0011-K010-K0007 | K10691 | Upper Tank Farm N82.502434, W-62.360841 |
| 0011-K010-K0008 | K10694 | Upper Tank Farm N82.502795, W-62.360946 |
| 0011-K010-K0029 | K627359 | Station Day Tank N82.257101, W-62.77461 |




| | | |
|---|---|---|
| 0011-K010-K0010 | K10701 | Standby Power Plant Building 146 |
| 0011-K010-K0011 | K10702 | Main Power Plant Building 145 |




| | | |
|---|---|---|
| 0011-K010-K0012 | K10707 | Lower Airfield Tank Farm N82.512535, W-62.305937 |
| 0011-K010-K0013 | K10708 | Lower Airfield Tank Farm N82.512341, W-62.307032 |
| 0011-K010-K0014 | K10710 | Lower Airfield Tank Farm N82.511775, W-62.311695 |




| | | |
|---|---|---|
| 0011-K010-K0015 | K13968 | Gym, Building 39 |
| 0011-K010-K0016 | K15597 | Whitehorse Hall Building 117 |
| 0011-K010-K0017 | K15598 | Ladner Hall Building 116 |
| 0011-K010-K0018 | K15599 | Chimo Hall Building 115 |
| 0011-K010-K0019 | K15600 | Operations Hall Building 119 |
| 0011-K010-K0020 | K15601 | HAPS Hall Building 125 |
| 0011-K010-K0021 | K15602 | HAPS Hall Building 125 |
| 0011-K010-K0022 | K15603 | CE / Fire Department Building 140 |
| 0011-K010-K0023 | New tank | Vehicle Cold Storage Building 113 - was installed in August. Tank Permanently Out of Service and Abandoned. |
| 0011-K010-K0024 | K15605 | Maintenance / Transport Building 17 |
| 0011-K010-K0025 | K15606 | Transport Storage Building 16 |
| 0011-K010-K0026 | K15607 | Main Supply Building 131 |
| 0011-K010-K0027 | K15608 | Water Treatment Plant Building 114, Permanently Out of Service and Disposed |
| 0011-K010-K0028 | K15609 | Incinerator Building 29 |
| 0011-K010-K0030 | | Water Treatment Plant Building 114 |
| 0011-K010-K0031 | | Water Treatment Plant Building 114 |

## TANK CHARACTERISTICS

Upper Tank Farm 0011-K010-K0001 to K0008


GPS COORDINATES: Upper Tank Farm N82 30 05.9, W062 21 35.0

**Properties and Characteristics of Product**:

- Tanks in System: 28 (Twenty-eight);
- Maximum System Capacity: 5,180,023 L;
- Use: Bulk Plant for domestic heating diesel fuel (DF8);
- Upper Tank Farm (UTF) Berm included Tanks:
  - **0011-K010-K0001 - K-10685** Tank #1, 455,000 L
  - **0011-K010-K0002 - K-10686** Tank #2, 455,000 L
  - **0011-K010-K0003 - K-10687** Tank #3, 455,000 L
  - **0011-K010-K0004 - K-10688** Tank #4, 455,000 L
  - **0011-K010-K0005 - K-10689** Tank #5, 480,477 L
  - **0011-K010-K0006 - K-10690** Tank #6, 480,477 L
  - **0011-K010-K0007 - K-10691** Tank #7, 480,477 L
  - **0011-K010-K0008 - K-10694** Tank #8, 480,477 L
- Single Wall; and
- Coated with rust-resisting material.

BERM

## Description of the Location and Surrounding Area

**Direction of slope**:

Presence of ditches, low lying area, or any other preferential pathways of products in the event of a release: Yes

If yes, Location(s): North and Nord East of the berm

Tanks are located in a berm. If the berm is breached, there is potential of fuel travelling downward in the ditch towards a culvert, located under the roadway, and through the landfill, and ultimately to the Bay.

No presence of buildings and public areas in the vicinity of the Upper Tank Farm storage system that may be required to be evacuated in the event of an emergency:

Evacuation of non-essential personnel from the area should be conducted in event of a spill.

**Tank Containment**:

- Leak Detection Method: Visual Inspection;
- Impermeable liner under tank AST ; and
- Type of Diking: Gravel bed with geo membrane, drained using a mobile pump.

GPS COORDINATES: Day Tank N82.257101, W62.77461

**Properties and Characteristics of Product**:

- Tanks in System: 28 (Twenty-eight);
- Maximum System Capacity: 5,180,023 L;
- Use: DF8 – Bulk Fuel System - Operating Day Tank
- Tank Maximum expected quantity (Total Capacity): 24,400 L
- Double walled.
- Coated with rust resistant material.

**DESCRIPTION OF THE LOCATION AND SURROUNDING AREA**

**Direction of slope**:

Presence of ditches, low lying area, or any other preferential pathways of products in the event of a release: No. The area surrounding the berm containing the tank is fairly flat.

If yes, Location(s):

Tank is located in a berm. If the berm is breached, there is potential for fuel to travel downward towards the parking lot.

Presence of buildings and public areas in the vicinity of the storage tank system that may be required to be evacuated in the event of an emergency:

Evacuation of non-essential personnel from the area should be conducted in event of a spill.

**Tank Containment**:

- Type of Diking: Gravel bed with geo membrane, drained using a mobile pump;
- Leak Detection Method: Visual Inspection; and
- Secondary Containment: Impermeable liner under AST.

**0011-K010-K0010** **K10701**

Location: Inside Standby Power Plant - Building 146 N82.497374, W-62.344098

**Properties and Characteristics of Product**:

- Tanks in System: 28 (Twenty-eight);
- Maximum System Capacity: 5,180,023 L;
- Use: DF8 – Bulk Fuel System - Operating tank for Generators;
- Tank Maximum expected quantity (Total Capacity): 9,420 L;
- Single walled; and,
- Coated with rust resistant material.

**DESCRIPTION OF THE LOCATION AND SURROUNDING AREA**

Tanks are located indoors. Fuel would flow into the floor trench with a leak detection system. This trench follows the piping from the tanks to the generators. Evacuation of non-essential personnel from building should be conducted in event of a spill.

**Tank Containment**:

- Type of Diking: Inside building with a concrete floor and trench.

**0011-K010-K0011** **K10702**

Location: Inside Main Power Plant - Building 145 N82.497545, W-62.346517

**Properties and Characteristics of Product**:


- Tanks in System: 28 (Twenty-eight);
- Max System Capacity: 5,180,023 L;
- Use: DF8 - Bulk Fuel System - Operating tank for Generator;
- Tank Maximum Expected Quantity (Total Capacity): 9,420 L;
- Single walled; and,
- Coated with rust resistant material.

**DESCRIPTION OF THE LOCATION AND SURROUNDING AREA**

Tanks are located indoors. Fuel would flow into the floor trench with a leak detection system. This trench follows the piping from the tanks to the generators. Evacuation of non-essential personnel from building should be conducted in event of a spill.

Leak Detection System Monitor - Dorlen Products, Milwaukee, Wisconsin.
Series 2100 Model WM-6 (T) Oil Alert Model OA2100

**Tank Containment**:

- Type of Diking: Type of Diking: Inside building with a concrete floor and trench.
- Leak Detection Method: Visual Inspection.

**0011-K010-K0012** **K10707**

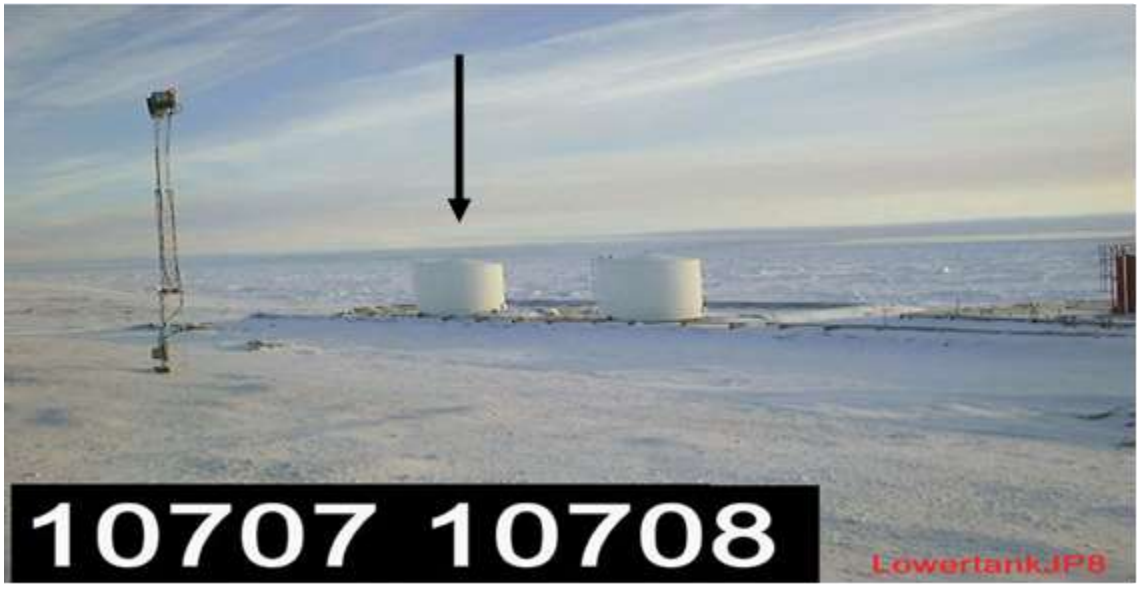
Lower Tank Farm GPS COORDINATES: N82.512535, W-62.305937

**Properties and Characteristics of Product**:


- Tanks in System: 28 (Twenty-eight);
- Maximum System Capacity: 5,180,023 L;
- Use: Bulk Plant;
- Tank Maximum Quantity (Total Capacity): 455,000 L;
  - **K-10708** Lower Tank Farm (DF8) (2A)
  - **K-10710** Lower Tank Farm (DF8) (5A)
- Single Wall; and,
- Coated with rust-resisting material.

**DESCRIPTION OF THE LOCATION AND SURROUNDING AREA**

**Direction of slope**:




Presence of ditches, low lying area, or any other preferential pathways of products in the event of a release: Yes

If yes, Location(s): Low lying areas behind the berm of the LTF

Tanks are located in a berm. If berm is breached, fuel has potential to travel down gradient towards the Bay.

Presence of buildings and public areas in the vicinity of the storage tank system that may be required to be evacuated in the event of an emergency:

Evacuation of non-essential personnel from the area should be conducted in event of a spill.

**Tank Containment**:

- Leak Detection Method: Visual Inspection;
- Impermeable liner under AST; and
- Type of Diking: Gravel bed with geo membrane, drained using a mobile pump.

**0011-K010-K0013** **K10708**

Lower Tank Farm GPS COORDINATES: N82.512341, W-62.307032

**Properties and Characteristics of Product**:


- Tanks in System: 28 (Twenty-eight);
- Maximum System Capacity: 5,180,023 L;
- Use: Bulk Plant;
- Maximum Expected Quantity (Total Capacity): 455,000 L;
  - **K-10707** Lower Tank Farm (DF8) (1A)
  - **K-10710** Lower Tank Farm (DF8) (5A)
- Single Wall; and,
- Coated with rust-resisting material.

**DESCRIPTION OF THE LOCATION AND SURROUNDING AREA**

**Direction of slope**:


Presence of ditches, low lying area, or any other preferential pathways of products in the event of a release:

If yes, Location(s):

Tanks are located in a berm. If berm is breached, fuel has potential to travel down gradient towards the Bay.

Presence of buildings and public areas in the vicinity of the storage tank system that may be required to be evacuated in the event of an emergency:

Evacuation of non-essential personnel from the area should be conducted in event of a spill.

**Tank Containment**:

- Leak Detection Method: Visual Inspection;
- Impermeable liner under AST ; and
- Type of Diking: Gravel bed with geo membrane, drained with a mobile pump.

**0011-K010-K0014** **K10710**

Lower Tank Farm GPS COORDINATES: N82.511775, W-62.311695

**Properties and Characteristics of Product**:

- Tanks in System: 28 (Twenty-eight);
- Maximum System Capacity: 5,180,023 L;
- Use: DF8 - Bulk Plant;
- Maximum Tank Quantity (Total Capacity): 455,000 L;
  - **K-10707** Lower Tank Farm (DF8) (1A)
  - **K-10708** Lower Tank Farm (DF8) (2A)
- Single Wall; and,
- Coated with rust-resisting material.

**DESCRIPTION OF THE LOCATION AND SURROUNDING AREA**

**Direction of slope**:


Presence of ditches, low lying area, or any other preferential pathways of products in the event of a release:

If yes, Location(s):

Tanks are located in a berm. If berm is breached, fuel has potential to travel down gradient towards the Bay.

Presence of buildings and public areas in the vicinity of the storage tank system that may be required to be evacuated in the event of an emergency:

Evacuation of non-essential personnel from the area should be conducted in event of a spill.

**Tank Containment**:

- Leak Detection Method: Visual Inspection;
- Impermeable liner under AST ; and
- Type of Diking: Gravel bed with geo membrane, drained with a mobile pump.

**0011-K010-K0015** **K13968**

Location: Gymnasium - Building 39 N82.498292, W-62.334353

**Properties and Characteristics of Product**:

- Tanks in System: 28 (Twenty-eight);
- Maximum System Capacity: 5,180,023 L;
- Use: DF - Operating tank Heating system;
- Maximum Tank Quantity (Total Capacity): 2,250 L

**Tank Containment:**

- Double Walled interstitial leak detection.
- Coated with rust resistant material.

**Presence of Building:**

Tank is located indoors. If there is a leak, there is potential for fuel to flow on to the floors and eventually escape via the door onto gravel. There is a slight slope beyond the building. Evacuation of non-essential personnel from the area should be conducted in event of a spill.

**0011-K010-K0016** **K15597**

Location: Whitehorse Hall - Building 115, room124 N82.499005, W-62.341578

**Properties and Characteristics of Product**:


- Tanks in System: 28 (Twenty-eight);
- Maximum System Capacity: 5,180,023 L;
- Use: Operating tank
- Maximum Tank Quantity (Total Capacity): 2,250 L

**Tank Containment:**

- Double Walled interstitial leak detection.
- Coated with rust resistant material.

**Presence of Building:**

Tank is located indoors. If there is a leak, there is potential for fuel to flow on to the floor and into the crawlspace. Evacuation of non-essential personnel from building should be conducted in event of a spill.

***Warning:*** Overfilling of tank can result in fuel venting and spilling outdoors via the tank vent pipe (shown below) onto the surface gravel.

**0011-K010-K0017** **K15598**

Location: Ladner Hall - Building 116, room 124 N82.499158, W-62.342180

**Properties and Characteristics of Product**:

- Tanks in System: 28 (Twenty-eight);
- Maximum System Capacity: 5,180,023 L;
- Use: DF8 - Operating tank Heating System
- Maximum Tank Quantity (Total Capacity): 2,250 L

**Tank Containment:**

- Double Walled interstitial leak detection.
- Coated with rust resistant material.

**Presence of Building:**

Tank is located indoors. If there is a leak, there is potential for fuel to flow on to the floor and into the crawlspace. Evacuation of non-essential personnel from building should be conducted in event of a spill.

***Warning:*** Overfilling of tank can result in fuel venting and spilling outdoors via the tank vent pipe (shown below) onto the surface gravel.

**0011-K010-K0018** **K15599**

Location: Chimo Hall - Building 115, room126 N82.499348, W-62.343478

**Properties and Characteristics of Product**:

- Tanks in System: 28 (Twenty-eight);
- Maximum System Capacity: 5,180,023 L;
- Use: DF8 - Operating tank Heating System
- Maximum Tank Quantity (Total Capacity): 1,500 L

**Tank Containment:**

- Double Walled interstitial leak detection.
- Stainless Steel rust resistant material.

**Presence of Building:**

Tank is located indoors. If there is a leak, there is potential for fuel to flow on to the floor and into the crawlspace. Evacuation of non-essential personnel from building should be conducted in event of a spill.

***Warning:*** Overfilling of tank can result in fuel venting and spilling outdoors via the tank vent pipe (shown below) onto the surface gravel.

**0011-K010-K0019** **K15600**

Location: Ops Polaris Hall - Building 119, room 108 N82.499511, W-62.346334

**Properties and Characteristics of Product**:

- Tanks in System: 28 (Twenty-eight);
- Maximum System Capacity: 5,180,023 L;
- Use: DF8 - Operating tank Heating System
- Maximum Tank Quantity (Total Capacity): 2,250 L

**Tank Containment:**

- Double Walled interstitial leak detection.
- Coated with rust resistant material.

**Presence of Building:**

Tank is located indoors. If there is a leak, there is potential for fuel to flow on to the floor and then beneath the ground underneath the building. The level ground will allow fuel to stay in the room. Evacuation of non-essential personnel from building should be conducted in event of a spill.

***Warning**:* Overfilling of tank can result in fuel venting and spilling outdoors via the tank vent pipe (shown below) onto the surface gravel.

**0011-K010-K0020** **K15601**

Location: HAPS Hall - Building 125, room 103 N82.498551, W-62.343124

**Properties and Characteristics of Product**:

- Tanks in System: 28 (Twenty-eight);
- Maximum System Capacity: 5,180,023 L;
- Use: DF8 - Operating tank for backup generator and Heating Systems;
- Maximum Tank Quantity (Total Capacity): 1,500 L

**Tank Containment:**

- Double Walled interstitial leak detection.
- Stainless steel rust resistant material.

**Presence of Building:**

Tank is located indoors. If there is a leak, there is potential for fuel to flow on to the floor and stay in the room. Evacuation of non-essential personnel from the room should be conducted in event of a spill.

***Warning***: Overfilling of tank can result in fuel venting and spilling outdoors via the tank vent pipe (shown below) onto the surface gravel.

**0011-K010-K0021** **K15602**

Location: HAPS Hall - Building 125, room103 N82.498551, W-62.343124

**Properties and Characteristics of Product**:

- Tanks in System: 28 (Twenty-eight);
- Maximum System Capacity: 5,180,023 L;
- Use: DF8 - Operating tank for Generator and Heating System
- Maximum Tank Quantity (Total Capacity): 1,500 L

**Tank Containment:**

- Double Walled interstitial leak detection.
- Coated with rust resistant material.

**Presence of Building:**

Tank is located indoors. If there is a leak, there is potential for fuel to flow on to the floor and stay in the room. Evacuation of non-essential personnel from the room should be conducted in event of a spill.

***Warning:*** Overfilling of tank can result in fuel venting and spilling outdoors via the tank vent pipe (shown below) onto the surface gravel.

**0011-K010-K0022** **K15603**

Location: RP Ops Det Shop and Fire Department - Building 140. N82.498318, W-62.350529

**Properties and Characteristics of Product**:


- Tanks in System: 28 (Twenty-eight);
- Maximum System Capacity: 5,180,023 L.
- Use: DF8 - Operating tank Heating System.
- Maximum Expected Quantity (Total Capacity): 3,375 L.

**Tank Containment:**

- Double Walled interstitial leak detection.
- Coated with rust resistant material.

**Presence of Building:**

Tank is located indoors. If there is a leak, there is potential for fuel to flow outside and travel downward towards the parking lot.

**0011-K010-K0023** **K ?**

Location: Vehicle Cold Storage - Building 113 N82.499077, W-62.356936

**Properties and Characteristics of Product**:


- Tanks in System: 28 (Twenty-eight);
- Maximum System Capacity: 5,180,023 L;
- Use: DF8 - Operating tank Heating System
- Maximum Tank Quantity (Total Capacity): 2,500 L
- Attached Material Safety Data Sheets (MSDS) in Appendix A

**Tank Containment:**

- Double Walled interstitial leak detection.
- Coated with rust resistant material.

**DESCRIPTION OF THE LOCATION AND SURROUNDING AREA**

**Direction of slope:**

Tank is located outdoors. If there is a leak, there is potential for fuel to flow on to a relatively flat gravel terrain.

***Warning:*** Overfilling of tank can result in fuel venting and spilling outdoors via the tank vent pipe.

**0011-K010-K0024** **K15605**

Location: TN/EME Office and Garage - Building 17 N82.498532, W-62.354091

**Properties and Characteristics of Product**:

- Tanks in System: 28 (Twenty-eight);
- Maximum System Capacity: 5,180,023 L;
- Use: DF8 - Operating tank Heating System
- Maximum Tank Quantity (Total Capacity): 2,250 L

**Tank Containment:**

- Double Walled interstitial leak detection.
- Coated with rust resistant material.

**DESCRIPTION OF THE LOCATION AND SURROUNDING AREA**

**Direction of slope:** Tank is located indoors. If there is a leak, there is potential for fuel to flow outside and underneath the building via door way. Evacuation of non-essential personnel from building should be conducted in event of a spill.

***Warning****:* Overfilling of tank can result in fuel venting and spilling outdoors via the tank vent pipe onto the surface gravel.

**0011-K010-K0025** **K15606**

Location: Transport Storage - Building 16 N82.499515, W-62.351019

**Properties and Characteristics of Product**:


- Tanks in System: 28 (Twenty-eight);
- Maximum System Capacity: 5,180,023 L;
- Use: DF8 - Operating tank Heating System
- Maximum Expected Quantity (Total Capacity): 2,250

**Tank Containment:**

- Double Walled interstitial leak detection. Coated with rust resistant material.

**DESCRIPTION OF THE LOCATION AND SURROUNDING AREA**

**Direction of slope:**

Tank is located indoors. If there is a leak, there is potential for fuel to flow outside on to a relatively flat terrain.

Evacuation of non-essential personnel from building should be conducted in event of a spill.

**0011-K010-K0026** **K15607**

Location: Main Supply - Building 131 N82.497893, W-62.348390

**Properties and Characteristics of Product**:

- Tanks in System: 28 (Twenty-eight);
- Maximum System Capacity: 5,180,023 L;
- Use: DF8 - Operating tank Heating System;
- Tank Maximum Expected Quantity (Total Capacity): 1500 L

**Tank Containment:**

- Double Walled interstitial leak detection;
- Coated with rust resistant material.

**DESCRIPTION OF THE LOCATION AND SURROUNDING AREA**

**Direction of slope:**

Tank is located indoors. If there is a leak, there is potential for fuel to remain in the room.

Evacuation of non-essential personnel from the room should be conducted in event of a spill.

Top


Bottom

**0011-K010-K0027** **K15608**

Location: Water Plant - Building 114 N82.497729, W-62.335154

**Properties and Characteristics of Product**:

- Tanks in System: 28 (Twenty-eight);
- Maximum System Capacity: 5,180,023 L;
- Use: DF - Operating tank for Generator and Heating System;
- Maximum Expected Quantity (Total Capacity): 2,250 L

**Tank Containment:**

- Double Walled interstitial leak detection;
- Coated with rust resistant material.

**DESCRIPTION OF THE LOCATION AND SURROUNDING AREA**

**Direction of slope:**

Tank is located indoors. If there is a leak, there is potential for fuel to remain in the room.

Evacuation of non-essential personnel from the room should be conducted in event of a spill.

**0011-K010-K0028** **K15609**

Location: Incinerator - Building 29 N82.4980965, W-62.336696

**Properties and Characteristics of Product**:

- Tanks in System: 28 (Twenty-eight);
- Maximum System Capacity: 5,180,023 L;
- Use: DF8 - Operating tank for incinerator and Heating System;
- Maximum Expected Quantity (Total Capacity): 2,250 L

**Tank Containment:**

- Double Walled interstitial leak detection;
- Coated with rust resistant material.

**DESCRIPTION OF THE LOCATION AND SURROUNDING AREA**

**Direction of slope:**

Tank is located indoors. If there is a leak, there is potential for fuel to flow outside of the building and down slope into the pond located behind the Oxidator Building. If the leak continues unimpeded, it is possible for the fuel to leave the pond via the culvert and down further grade towards the Bay. Evacuation of non-essential personnel from the area should be conducted in event of a spill.

***Warning**:* Overfilling of tank can result in fuel venting and spilling outdoors via the tank vent pipe (shown aside) onto the surface gravel.

## 2. SCOPE

This is an order that applies to members of the Canadian Forces (CF) and a directive that applies to employees of and contractors on behalf of, the Department of National Defence (DND).

## 3. PURPOSE

The purpose on an emergency response plan is to outline protocols and procedures to prevent, prepare for, and respond to any emergency associated with storage tank systems that contain petroleum or allied petroleum products. *This emergency response plan (Environmental Emergency Plan, E2P) works in conjunction will all Government and DND regulations.* This E2P is required under the Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations (SOR/2008-197), sections 30 to 32 pursuant to the Canadian Environmental Protection Act, 1999.

## 4. PREVENTATIVE AND EMERGENCY RESPONSE PROCEDURES

The Contractor, on behalf of DND, is responsible for operation and maintenance of all identified storage tank systems located on the Station. DND is responsible for major maintenance. This section outlines standard operating procedures (SOPs) for product transfers, inspections, and maintenance of systems were developed, and emergency response procedures to respond to leaks, spills or emergencies associated with the storage tank systems in order to minimize possible impacts to human health or the environment.

### Preventative Measures

Preventative measures include information regarding procedures for the operation, maintenance and inspection of storage tank systems in order to minimize possible releases into the environment during product transfers or failure of storage tank system components.

*As per Section 40 of the CFS Alert Hazardous Material Management Plan 2009 states: The objective of spill prevention planning is to review current or new work practices. HAZMAT spills are preventable through detailed work design and education. High risk work practices must be identified and re-designed and have a well-defined reaction plan in place to minimize the impact of an uncontrolled release.*

### Preventative Maintenance

The care and servicing by personnel for the purpose of maintaining equipment and facilities in satisfactory operating condition by providing inspection, detection, and correction of damage or weakness either before they occur in order to minimize possible releases into the environment during product transfers or failure of the storage tank system components.

All work required modification on a tank and its system, MUST be approved by 8 Wing Environmental Management Office NOT including emergencies.

**Definitions:** ***Alter* or *alteration:* means to enlarge, reduce, refurbish, upgrade, or remove a *storage tank system*.**

***Construction:* means erection or installation.**

***Site:*** *means a lot or property where there is; one or more underground storage tank systems within 100 m of each other, or one or more aboveground storage tank systems within 200 m of each other, and all storage tanks on the property are owned by the same owner(s).*

## Maintenance

Maintenance activities are conducted by designated personnel to ensure that the tank systems continue to operate. Maintenance procedures should be based on Operating and Maintenance (O&M) documents and manufacturer's specifications.

If any deficiencies are identified outside of the regular maintenance, the Site Manager and 8 Wing Environmental Management Office should be notified (*see table 9.1*) and a work order generated so that appropriate action can be taken.

The *Canadian Environment Protection Act* requires that any records of work done on a tank must be kept for the life of the tank. All work orders and maintenance records should be kept onsite and a copy sent to 8 Wing Environmental Management Office.

## Inspection

Subsections 19(1)(a) and 23(1)(b) of the Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations (STR) require inspections be carried out monthly on tanks and associated piping on systems that contain petroleum or allied petroleum products.

Regulations are that all tanks are to be inspected daily or when off site, to be checked when possible. The inspections are conducted in order to ensure that there have been no deficiencies or deterioration of the system components.

A double walled tank's interstitial space is to be checked to ensure that the inner wall has not been breached.

The inspection record must contain all of the information listed in Section 27 of the STR's. A blank copy of the monthly visual inspection checklist is attached as Annex C.

## Planned Preparation Measures

This section includes information regarding planned preparations that establish a set of protocols to prepare for a possible release or emergency associated with storage tank systems. All personnel who are responsible for the operation, maintenance or supervision of the storage tank systems must be aware of the procedures. The procedures identify response levels, and contact information for the personnel responsible in responding to any release or emergency situation.

## Product Releases

A release is a loss of product either due to a spill or a leak. Any release, of product should be assessed to ensure that appropriate procedures are taken in order to ensure that impacts to human health or the environment are minimized.

**NOTE: A spill is defined as a product that extends beyond the area of the containment area.**

In the event of product loss during a transfer, or due to a leak in the system, the Station Personnel must be prepared to contain and clean up spills, *if safe to do so*. Station personnel who are responsible for the transfer of products and use of the systems should be aware of:

- The location of personal protective and the spill response equipment;
- Fire extinguishers;
- Procedures associated with cleaning up spills;
- Sensitive areas and immediate actions to be taken to contain or divert releases from any sensitive areas;
- Contact information of the Fire Chief (Smokey), Site Manager, Zippo, HAZMAT Coordinator, SWO, CO through normal Chain of Command and 8 Wing Environmental Officer (WEnvO); and
- Reporting requirements as per the *CFS Alert Hazardous Material Management Plan 2009, section 41*.

Contact information for all personnel associated with the Emergency Response Plan is included in **Table 9.1: Emergency Response Contact Information.**

## Emergency Response

In preparation for emergency situations, storage tank system failures, fires, or any other unforeseen emergency, Station personnel associated with the operation, maintenance, or supervision of these systems should be aware of:

- Important safety features associated with the systems (emergency shut off valves and switches, power switches, fire alarms, etc.);
- Evacuation procedures;
- Emergency contact numbers; and
- Communication protocols.

## Post Spill Clean Up, Recovery and Reporting

Following the release and cleanup of product that goes beyond the boundaries of the secondary containment or impermeable areas, remedial action may be required.

WEnvO should be contacted to assess the requirements of further assessment and remedial action and ensure the clean-up meets the requirements for Federal/Provincial standards for soil, groundwater and surface water.

- Spills at CFS Alert are required under several different pieces of Environmental Legislation as listed below:
- The Nunavut Water Board Licence 3BC-ALT1015 Part G, item 4b pursuant to the Nunavut waters and Nunavut Surface Rights tribunal act.
- Environment Canada's Storage Tank Systems For Petroleum Products and Allied Petroleum Products Regulations section 41 pursuant to paragraph 212(1)(a) of the Canadian Environmental Protection Act, 1999.
- The Fisheries Act subsection 38(4).
- The Government of Nunavut's, Environmental Protection Act paragraph 5.1(a).

Section 41 outlines what must be contained in the spill report for spills that are captured under the STR's. The NT-NU Spill Report form must be filled out to report all spills **without delay.** The NT-NU Spill Report form must be filled out by the Wing Environmental Management Office to report all spills without delay. A copy of the NT-NU Spill Report Form is attached as Annex D.

## Reporting Format

As adopted from the *CFS Alert Hazmat Management Plan 2009, Section 41*:

- All spills are to be reported immediately to the Site Manager, Smokey (Fire Chief), Zippo, HAZMAT Coordinator, SWO and CO through normal Chain of Command;
- HAZMAT Coordinator is to fill out the *CFS Alert Spill Report* for all spills regardless of quantity. This report is to be forward to the Site Manager for review before going to the CO and 8 Wing Environmental Management;
- The Site Manager is to ensure the *CFS Alert Spill Report* is completed accurately and forwarded by E-Mail/fax within 24 hours to 8 Wing Environmental Management;
- Site Manager ensures Spill Report is signed by the CO or delegated authority; and

- Spills must be reported to ensure that the appropriate site clean-up is initiated. Spill reports provide an opportunity to learn from the incident and plan to prevent further occurrences.


**8 Wing Environmental Management Office is responsible for reporting to required legislative authorities to prevent any potential financial or disciplinary penalties.**

## Emergency Response Procedures

The Regulation requires that the tank owner must have procedures for the preparation, and response to a spill / release, or failure of the tank system resulting in an emergency that may cause harm to human health or the environment. The procedures will address a response to:

- Loss of product during product transfers;
- Leaks resulting from failure of the tank or tank system components; and
- Loss of product due to human error.

**Note:** ***Spill clean-up is not firefighter responsibility. If clean-up assistance is required, trained staff shall assist Site Manager, Smokey, H20, HAZMAT Coordinator, SWO, accordingly.***

# 5. GENERAL SPILL PROCEDURES

## Procedures

**Immediately contact Smokey at ext. 3300 or Bandit at ext. 3301, if spill technical assistance is required or the spill has occurred off the hard surface, or the spill has entered a waterway.**

1. Ensure personnel safety and that of others by keeping unnecessary personnel away from the spill site;
2. Ensure that there is an appropriate fire extinguisher in the immediate area;
3. Ventilate area if release is indoors and remove all sources of ignition, if safe to do so;
4. Stop the source of the release *only if safe to do so.* Stop leak by plugging hole or using, if available, a tank or pipe shut-off valve;
5. Control the further spread of the product to prevent the product from escaping the transfer or secondary containment area if possible, by use of spill kit. Ensure that proper PPE is worn when assessing, containing, and cleaning up a release. Ensure that the product does not enter streams or waterways by using absorbent booms, pads, mats, earth, dykes, trenches, and other available materials;
6. Any spills must be reported immediately to the Fire Chief (Smokey), Site Manager, Zippo, HAZMAT Coordinator; and
7. 8 Wing Environmental Management staff are to be notified as soon as possible.

**For Releases**

1. Residues should be soaked up with appropriate absorbent material (do not flush away residues with water);
2. Clean up the spill, *when safe to do so*;
3. Transfer absorbent material with non-sparking tools into a labelled, sealable container;
4. Excavate any impacted soil or snow to be stored in a sealed container for analysis and disposal;
5. Return all clean-up material and hazardous waste to the HAZMAT Coordinator for disposal;
6. Return the completed *Spill Hazardous Material Incident Report* to the 8 Wing Environmental Management Office by fax or E-Mail within 24 hours; and
7. Replenish spill kit items.


***Do not*** **mix contaminated soil with existing soil in the BIOPILE**

# 6. INDIVIDUALS REQUIRED TO CARRY OUT THE PLAN

## QUALIFIED RESPONDERS

| | RESPONSIBILITIES |
|---|---|
| **8 Wing Environmental Management Office (WEnv Office)** | Report *spills* and *changes* to Environment Canada and required legislative authorities. |
| | Keep tank Environmental Emergency Plan (E2P) up-to-date. |
| | Submit any changes of E2P to Fire Department. |
| | Establish a schedule for replacing and upgrading tanks as required by regulations. |
| | Respond to Emergencies as required. |
| **Fire Chief (Smokey)** | First line response to HAZMAT related issues i.e. spill response. |
| **Deputy Fire Chief (Bandit)** | Augment Fire Chief in providing a HAZMAT Response capability. |
| **HAZMAT Coordinator** | Fill out CFS Alert Spill Report for all spills, regardless of quantity, and forward to Site Manager for review. |
| | Augment Fire Chief in providing a HAZMAT Response capability. |
| **Zippo, BFurnO** | Follows an established preventative maintenance schedule for regular tank inspections. |
| **All trained Station personnel, as required** | Spill Containment, Clean-up. |
| **Supervisor (Site Manager)** | Contractor to maintain tank inspection and maintenance records; Keep tank inspection records for life of tank. |
| | *Request changes* required to tank, tank system, contents of tank or tank maintenance to Boss Beaver. |
| | Review CFS Alert Spill Report; Ensure spill reports signed by the CO or delegated authority. |
| | Report any spills to 8 Wing Environmental Management Office within 24 hours of occurrence. |
| **Daily Inspector (Zippo, BFurnO)** | Report repair and maintenance issues to supervisor. |
| | Have any combustible debris or any garbage cleared away from tank areas. |
| | Maintain spill equipment. |
| | Daily inspections: every day tank is in use. |
| | In case of spill, implement spill response procedures |
| | **Initiate Emergency Response Plan (E2P) on discovery of a spill.** |

# 7. TRAINING REQUIRED BY INDIVIDUALS

*WSO (CFB Trenton) 15.04, subsection 5*
*DAOD 4003-0, Environmental Protection and Stewardship:*
*Definitions, Due Diligence*
*Code of Environment Stewardship, bullet 3*

| | TRAINING |
|---|---|
| **Supervisor** | **1st Responder course** |
| | **WHMIS 2015** |
| **Daily Tank Inspector** | **WHMIS 2015** |
| | **Read and understand spill procedures** |

**Due Diligence:**
is the reasonable standard of care for the environment and for the health and safety of others that individuals shall exercise in the course of their actions and duties.

**Awareness training:**
is provided to personnel who may work with the tanks as a part of their day to day duties for the transfer of products, or work within facilities associated with storage tank systems. Awareness training familiarizes personnel with the general requirements of the operation of storage tank systems, ensuring that the personnel are aware of:

- General requirements of the *Storage Tank SOP's*;
- Identification of the responsibilities of personnel who work with storage tank systems;
- Standard operating procedures associated with the duties of the personnel who use the tanks;
- Spill response procedures, and reporting requirements; and
- Training in the use of spill equipment to address small spills.

**Competence Training:**
is for personnel who are responsible for the inspection, operation, maintenance and regulatory requirements for storage tank systems. This training would include the information identified under the Awareness Training with expanded information regarding:

- Storage Tank Inspections and Maintenance;
- Storage tank inventory tracking; and
- Additional information regarding spill containment and emergency procedures.

**Spill Response Training:**

is for Station personnel responsible for responding to large spills or spills that the Section is not equipped to handle. The training would detail the appropriate containment, and recovery procedures, appropriate of all associated equipment, including PPE, and any additional training to respond to emergencies associated with releases of product into the environment.

**Respiratory Training:**

is for personnel who are required to work with any products that may require respiratory protection would be required to receive Respiratory Training. The Director General of Health Services (DGHS) with the assistance of the Canadian Forces Fire Marshal (CFFM) is responsible for administering the DND Respiratory Protection Program (RPP). All respiratory training will be conducted in accordance with the RPP. The training will cover the limitations of use, fitting, and maintenance of respirators.

# 8. EMERGENCY RESPONSE EQUIPMENT

**SPILL KIT CONTENTS:**

| | |
|---|---|
| 12 | Fuel absorbent pads / pillows |
| 2 | Gloves |
| 3 | Bags absorbal |
| 1 | Drain cover |
| 1 | Non Sparking Shovel |
| 10 | Garbage Bags |
| 2 | Goggles |
| 1 | Water proof package containing E2P |

* Spill Kit Contents subject to change based on Tank Properties and Characteristics

Location of nearest Spill Kit: near tank, _____

# 9. MEASURES REQUIRED TO NOTIFY PUBLIC

**Notify public who is adversely affected from spill location**

If the public needs to be notified with CO's approval**,** *contact WPAO* or *WPAO ASST* at 8 Wing Trenton,

**Orderly Room or Main Desk Local: 613-392-2811 ext. 2041 / 4565**
**Hours of Operation: 0800 -- 1600 hrs Mon-Fri**
**After Hours Emergency: 613-242-3156**

# 10. TABLES

**10.1**

| ALERT - EMERGENCY RESPONSE CONTACT INFORMATION | |
|---|---|
| **Office** | **Contact** |
| **CFS Alert** | Fax: (613) 945-3145 x 3394 |
| **Smokey (Fire Chief)** | (613) 945-3145 x 3300 |
| **Alert Site Manager (Contractor)** | (613) 945-3145 x 3262 |
| **Bandit (Deputy Fire Chief)** | (613) 945-3145 x 3301 |
| *Alert BFurnO* | (613) 945-3145 x 3218 |
| *Alert Zippo* | (613) 945-3145 x 3211 |
| **Alert HazMat Coordinator** | (613) 945-3145 x 3342 |
| *Alert SWO* | (613) 945-3145 x 3203 |

| 8 WING TRENTON - EMERGENCY RESPONSE CONTACT INFORMATION | |
|---|---|
| **Office** | **Contact** |
| **8 Wing Environmental Management Office** | Fax (613) 965-3368 |
| **Wing Environmental Officer** | (613) 392-2811 x 3930<br>andrew.tam@forces.gc.ca |
| **Environment Assistant / Tank Management** | (613) 392-2811 x 7235<br>gilles.st-onge@forces.gc.ca |

# 11. ANNEXES

ANNEX A

MSDS Sheets (Included)

ANNEX B

Storage Tank System Cross-Reference

ANNEX C

Updated Daily Visual Tank Inspection Sheet

ANNEX D

Northwest Territory and Nunavut Spill Report Form

# 12. REFERENCES

A. *WSO (CFB Trenton) 15.04 Emergency Response to Hazardous Materials Spills*;
B. *DAOD 4003-0, Environmental Protection and Stewardship*;
C. *DAOD 4003-1, Hazardous Materials Management*;
D. *Canadian Environmental Protection Act, 1999*;
   - General Requirements: Section 3, Subsection 1 through Section 3 Subsection 4,
   - Emergency Plan: Section 30 though Section 32,
   - Operation and Maintenance: Section 35 through Section 40,
   - Release Report: Section 41; and,
   - Record Keeping: Section 46.

E. *Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and allied petroleum products*: Section 8.4.1 through Section 8.4.3;
*F*. *Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and allied petroleum products*: Leak and Spill Response Section 8.9;
*G*. *Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and allied petroleum products*: Records Section 8.11;
H. *Attached Material Safety Data Sheets (MSDS); and,*
*I.* *CFS Alert Hazardous Materials Management Plan*

OPI: Wing Environment Officer

Revised: 21 December 2018
Original Implementation: June 2010