



## **FUEL MANAGEMENT PLAN**

**KIVALLIQ ENERGY CORP.  
ANGILAK PROPERTY**

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**General Information**

Diesel, aviation fuel, propane and gasoline are all stored at the Angilak Property. These fuels must be stored in a manner that minimizes risks to the environment, personnel/contractors and camp, while minimizing and preventing the potential impact of infrastructure developments. Fuel will be transported by air and via overland haul and stored on site in two ways; drums and bulk.

**Goal:**

To ensure that the storage of fuel is done in a manner that is environmentally sound and safe to personnel and contractors.

**Storage**

Drums

Fuel caches containing greater than 19 drums of fuel (>4,000 litres in size), and/or fuel caches that contain re-filled drums require secondary containment (AANDC, March 2009). Drummed fuel is stored within instaberms at the Angilak Property.

Drummed fuel caches will be stored at a minimum of 31 metres from the normal high water mark of any water body and such that there is no possibility of a potential spill entering any water body. Drums will be stored in neat rows on their sides with bungs facing at the 3:00 and 9:00 position.

Behind Tents

Kivalliq Energy Corp. has implemented secondary containment for the drummed fuel (for heating) behind the tents.

Bulk Fuel

Kivalliq Energy Corp. is currently investigating the purchase and use of double walled enviro-tanks for on-site bulk fuel storage.

**Secondary Containment**

Secondary containment structures will be capable of holding 110 percent of the volume of the largest fuel reservoir that is housed within the secondary containment. These structures will be of sufficient height and depth to hold any potential spill or failure and will be made of material that is sufficiently durable to withstand Nunavut's climate and the natural terrain. Secondary containment structures will comply with all applicable federal and territorial laws, regulations and guidelines.

### Fuel Transfer Stations/Areas

All fittings and valves will have secondary containment at all fuel transfer and refueling areas.

### Signs and Labels

All drummed fuel will be clearly labeled with the name of the company, the date of delivery to the site and the type of fuel contained within. Signs will be erected at each fuel cache with the same information. "NO SMOKING" signs will be erected at each fuel cache and fuel storage area.

### Inspections

Fuel caches containing greater than 19 drums of fuel and fuel bladders containing fuel will be inspected daily during operations. Secondary containment structures will also be inspected daily for signs of punctures, failures, leaks, etc. A record of these inspections will be kept in the office and will be available to the Inspectors upon request.

### Spill Kits

A spill kit capable of addressing potential spills (based on type, location and volume of fuel cache) shall be located at each fuel cache, storage area and re-fueling station. Refer to the Spill Response Plan for more information.

### Accumulated Water Within Secondary Containment Structures

Secondary containment structures will be cleared of snow and/or water on a regular basis.

Should any accumulated melt or storm water become contaminated, it will be contained, tested and if need be treated prior to requesting approval to discharge/release.

### Training

Proper use and monitoring is paramount to safe fuel storage and handling. Personnel that will be tasked with handling and inspecting will be required to receive proper and adequate training. This training will include, but not be limited to the following areas:

- Operations/Maintenance
- Spill Response
- WHMIS

### Transportation

#### Air

Drums of fuel and bulk fuel in approved containers may be flown to site as required. The unloading of fuel will be supervised. The fuel will then be transported to the fuel cache.

### Overland Haul

Fuel will be transported to site via overland haul during those months where snow cover is sufficient to support transport. Overland hauling will be from Baker Lake.

### Empty Drums

Empty drums will be sent to Baker Lake for refilling or recycling.

### **Registration**

Once double walled enviro-tanks have been purchased, they will be registered with Environment Canada when they arrive at site and prior to filling. Registration forms will be filed electronically at [www.ec.gc.ca/st-rs](http://www.ec.gc.ca/st-rs).

### **Applicable Legislation and Guidelines**

Acts, Regulations, and Legislation that applies to the storage, handling and transport of fuel is presented in:

#### Federal:

- National Fire Code of Canada (Federal)
- Storage Tank Systems For Petroleum Products and Allied Petroleum Products Regulations
- Federal Aboveground Storage Tank Technical Guidelines
- CCME Environmental Codes of Practice for Underground and Aboveground Storage Tank Systems
- Transport of Dangerous Goods Act
- The Workplace Hazardous Materials Information System (WHMIS)
- Workers' compensation Board
- Canadian Environmental Protection Act
- Fisheries Act
- Environmental Protection Act
- Guidelines for Spill Contingency Planning, Indian and Northern Affairs Canada
- Draft Fuel Storage and Handling Guidelines, April 2008, Indian and Northern Affairs Canada - Nunavut

#### Territorial:

- Fire Prevention Act (Territorial)
- Nunavut Waters Act
- Nunavut Surface Rights Tribunal Act
- Draft Recommended Best Practices For The Storage And Handling Of Petroleum And Allied Petroleum Products on Federal Crown Lands in Nunavut
- Nunavut "Guideline for the General Management of Hazardous Waste"
- The Mine, Health and Safety Act and Regulations (Nunavut)
- The NWT and Nunavut Safety Act, the Occupational Health and Safety Regulations