



Fuel Storage

Fuel Storage

Who to ask: tank farm owners/operators

89. How many tank farms are there in the village and who owns them?

The questions in the following section should be answered for EVERY tank farm in your village. By going through all of these questions, you will have a better idea of:

- Where all the tank farms in the village are located.
- Who owns them.
- Whether the tank farm owners are operating their tank farms in a safe manner that will prevent fuel spills from occurring.



Fuel tank farm
Photo Courtesy Bill Stokes

Tank farm owners must be able to safely operate their tank farm. This means that the tank farm owner is:

- Preventing spills from occurring
- Monitoring the fuel with an inventory
- Preparing for spill clean-up

A tank farm is an area where large tanks containing bulk fuel is stored. All different types of fuel used by people in the village are stored at tank farms such as diesel, oil and unleaded gasoline. There may be several tank farms in your village with different owners such as the city, village council, regional corporation and the school.

It is beneficial to the community and the tank farm owners to have cooperation among the different tank farms in the village. Tank farm owners can benefit from sharing resources and assisting each other with management plans and spill materials.

90. Do any of the tank farm owners have a written plan to follow in case there is a fuel spill?

Yes No ?

Who does and does not?



Even small leaks turn into large fuel spill over time

Photo Courtesy Bill Stokes

91. Do all of the tank farms have labels on them identifying what's inside?

Yes No ?



All tank farms should have clear and visible labels identifying the contents inside

Photo Courtesy Bill Stokes

Each tank farm owner should have a written plan to follow for managing their tank farm. The purpose of the plan is to describe the procedures for preventing fuel spills and for cleaning up in the event of a spill. If a spill is not cleaned up, the fuel may eventually reach the surface or ground water and the water will become contaminated. It's important that the tank farm operator practice the written plan before a spill occurs. By practicing the plan ahead of time, you can make sure the equipment for the spill works, the materials needed are available, and that the plan is adequate.

There are several different types of plans that are required from different agencies depending on the size and location of the tanks. Plans may include, but are not limited to:

- Spill Prevention Control and Countermeasures Plan (SPCC)
- United States Coast Guard Operations Manual
- Contingency Plan

All of the tank farms should have tanks with a clear and visible label that identifies the contents inside. A properly labeled tank will eliminate any confusion about what the tanks contain. There have been incidents in rural Alaska where a tank has been refilled with the wrong fuel. In one village along the Yukon River, diesel fuel was mixed with fuel used in snowmachines and vehicles. Mixing different fuels is a costly mistake, which could endanger your life. A clearly labeled tank is important in the event of a fuel spill. If there is a spill, you need to know immediately which type of fuel you are dealing with in order to know how to react.

92. Do any of the tank farms have active or ongoing leaks of any size?

Yes No ?

If yes, which ones?

Are the leaks from a tank or a pipe?



Active Fuel Spill at a tank farm
Photo Courtesy Bill Stokes

Tank farms with active or ongoing leaks of any size should be repaired immediately. Pipes that are covered with snow in the winter and then driven over by ATVs and snowmachines are especially vulnerable to breaking and leaking. The fuel that leaks from the tank or pipe enters into the environment and can be a health hazard.

Storage tanks should be inspected regularly for signs of leaks, rust, or corrosion along the tank bottoms, seams, gaskets, bolts or rivets and at fittings and valves. Regular inspections and repairs reduce the risk of fuel spills.

Fuel spills are an expensive cost to the operator and community if not cleaned up immediately. Even small leaks from pipes can turn into large fuel spills over time. Spilled fuel can affect humans and wildlife in a variety of ways:

- Animals in contact with oil can become sick, weaken and die.
- Small amounts of oil on a bird's feather can kill the bird.
- Oil spilled in water can kill fish and other aquatic wildlife. Fish will not return to a contaminated area for many years.
- People eating poisoned animals or drinking contaminated water can become sick. Contact with oil can also cause long term health problems.

*One pint of oil can pollute more drinking water
than 15 people drink in a lifetime!*

93. Do all tank farms have secondary containment?

Yes No ?

If no, which ones?

Secondary containment is a way to contain fuel that has spilled or leaked at a tank farm so that it can be cleaned up. The purpose of secondary containment is to prevent fuel from flowing onto the land or in the water if there is a spill from one of the tanks.

To be effective, the containment area must be large enough to hold the contents of the largest tank with at least one additional foot of height for rain or snow. The containment area should be lined with material to prevent fuel from leaking through the walls or seeping into the ground. If there is a liner, check for tears, cracks, and unsealed seams around the pipes going through the liner.

If there is no secondary containment or the containment area is inadequate, it's important to look at the area and determine where fuel would go if a major spill occurs. Knowing where the fuel will flow, will allow you to react quicker during a spill. You may want to consider creating a diversion pond to collect the fuel in the event of a major spill. This would channel fuel into one area and make clean-up easier.



An upgraded tank farm with secondary containment
Photo Courtesy Bill Stokes

94. Do all the tank farms have fuel spill clean-up materials on hand?

Yes No ?

If yes, which ones, what do they have and approximately how much?

All tank farms should have materials available to contain and clean up fuel spills safely and efficiently. There should be enough clean up materials on hand to clean up a spill and dispose of the materials used for cleanup. If a tank farm owner does not have the necessary materials to clean up a fuel spill, he/she is putting the entire community at risk. An absorbent boom is used to soak up oil and prevent its movement. Some of the materials that should be available in the event of a spill include:

- About 10 bales of sorbent pads-to soak up the fuel.
- A sorbent wringer-allows you to reuse sorbent pads.
- 55 gallon storage drums for storing used sorbent pads.
- An absorbent boom—used to soak up oil and prevent its movement.
- Personal protective gear such as disposable respirators, gloves, rubber boots, rain gear, eye protection and hard hats.
- Burner for used sorbent materials.



An absorbent boom is used to soak up oil and prevent its movement

95. Were there any tank farm fuel spills of more than 55 gallons in the last five years?

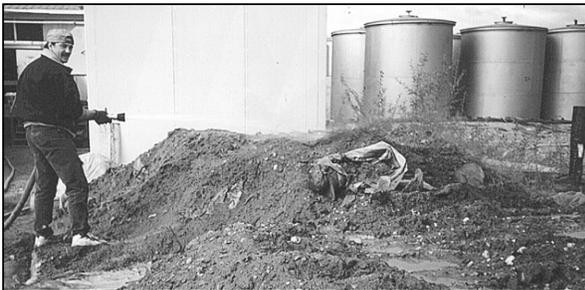
Yes No ?

If yes, which one and what was the cause of the spill?

96. Have the pipeline(s) used to fill the tank farms from the barge or aircraft been tested for leaks?

Yes No ?

If yes, when?



Treating contaminated soil
Photo Courtesy Bill Stokes

Many times fuel spills in the village go unnoticed. Knowing which tank farms have had significant spills in the last five years and the cause of the spill may reveal a repeated problem with a tank or pipe. These spills need to be identified for clean-up and any damaged tanks or pipes must be repaired.

A fuel spill of 55 gallons or more is costly to the environment and to the owner who purchases the fuel. Oil spills in excess of 55 gallons must be reported immediately to the nearest Department of Environmental Conservation Area Response Team. Emergency contact numbers should be written on a sign at each tank farm in the village.

The pipelines used to fill the tanks at the tank farm need to be tested periodically for leaks. Barge operators are required to pressure check fuel lines before filling the tanks. The owner of the tank farm is responsible for making sure that the pipelines are tested and are not leaking. If the pipelines are underground, there is no way to detect a leak unless a pressure test is performed. If the pipeline is above the ground, leaks can be detected just by looking on the ground for spilled fuel. It is important to do these tests periodically to make sure that a fuel leak is not contaminating the ground. Any fuel leaking into the ground has the potential to make it into the water and contaminate the drinking water supply.

97. Do all of the tank farms have signs on them with the telephone numbers of people to contact in case of a spill?

Yes No ?

If no, which tanks need signs?

Alaska Department of Environmental Conservation
Division of Spill Prevention and Response

REPORT ALL

OIL AND HAZARDOUS SUBSTANCES SPILLS

During normal business hours
contact the nearest DEC Area Response Team office:

Central Alaska Response Team: ANCHORAGE	269-7500
	FAX 269-7648
Northern Alaska Response Team: FAIRBANKS	451-2121
	FAX 451-2362
Southeast Alaska Response Team: JUNEAU	465-5340
	FAX 465-2232

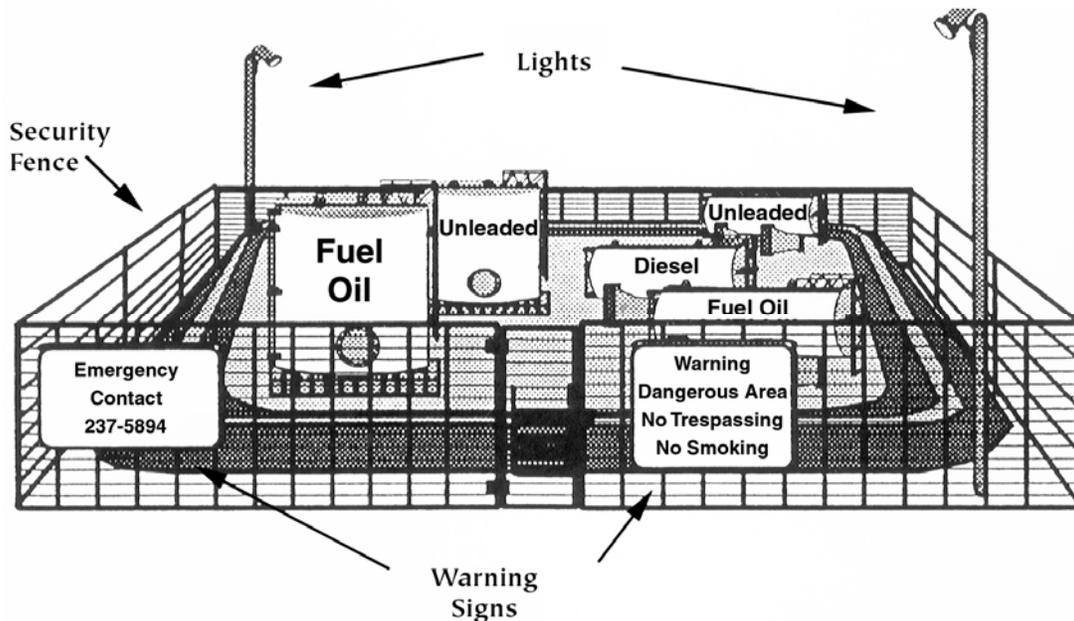
Outside normal business hours, call:1-800-478-9300

ALASKA LAW REQUIRES REPORTING OF ALL SPILLS



Emergency contact signs should be posted either on the fence surrounding the tank farm or on the tanks themselves if no fence exists. The signs should include the name and telephone number of people or agencies to call in the event of a fuel spill. It is very important to have this information available to any person in the event of an emergency. This enables someone who observes a spill to do something about it.

The name and telephone number of the most recent owner of the tank farm should be written on the sign. This person should be contacted immediately if a fuel spill is detected at his/her tank farm. The contact number for the correct office at the State and U.S. Coast Guard should be posted as well. These agencies are able to provide technical advice on how to deal with the fuel spill as well as assistance with clean up if the spill is too big for the village to handle.



98. Have there been fuel spills in the past that have not been cleaned up that are of concern to the village residents?

Yes No ?

If yes, where?



Fuel spill at an old tank farm
Photo Courtesy Bill Stokes

Fuel that was spilled in the past and not cleaned up will remain in the environment. These areas are a potential threat to the health of the community and should be identified and prioritized for clean-up.

In one village, an oil spill occurred around an abandoned school. The local officials spent five years failing to determine who had the responsibility to clean it up. In the meantime, the site sat as an environmental time bomb. In another village, a fuel tank broke and no one reported it because the fuel sank into the ground and seemed to “disappear.” Months later, the fuel moved underground from the spill area to the village’s drinking water well.

Remember, the less fuel used in a community the less chance of a fuel spill, need for fuel storage, less exhaust fumes in the air and likely a reduction in energy costs. This can be achieved by implementing energy conservation measures.



Mt. Sanford Tribal Consortium supports a zero leak initiative.

MSTC is trying to help the people become aware of fuel tank repair & maintenance, thus eliminating water damage and costly stove repair bills.

Pollution
Home heating fuel tanks are a common cause of contamination. It is estimated that nearly 2/3 of all tanks in rural Alaska are leaking fuel on to the ground & in the water.

Prevention
Many people find themselves suddenly without heat or paying costly repair bills for oil stoves. Proper fuel tank maintenance can prevent many problems. An ounce of prevention is worth a pound of cure!

Zero Leak Initiative

Fuel Tank Program



Our goal is to eliminate the damage caused by poor fuel tank maintenance by providing education and support.

Tel: 907-822-5399 ext.35

What We Do:

At this time MSTC has resources for the following Fuel Tank Program services:

- 1) Provide Supplies**
Hydrasorb Filters*
-Filter assembly units
- 2) Tool Loan Program**
- Fuel tank repair stations are available for public use in Chistochina & Mentasta through the environmental offices.
- 3) Provide Education**
-Fuel Tank Repair Booklet
-Provide Fuel Tank 101 classes
-Home Heating System Certification Program
- 4) Filter Recycling**
-Hydrasorb fuel filters can be recycled at the Chesh'Na and Mentasta Recycling Centers. Please put in proper bin.

Would You Like To Become A Certified Fuel Tank Maintenance Technician?



Mt. Sanford Tribal Consortium will be offering fuel tank maintenance classes in the Spring of 2007.

† This is a valuable class for anyone who has a home heating tank.

● A Certified Fuel Tank Maintenance Technician could earn money by providing on-site repair services in their community. Business Idea!

What We Don't Do:

MSTC Fuel Tank Program is not responsible for the following:

- 1) On-site Repair**
MSTC does not have enough resources to provide home repair service to individuals. Individuals are encouraged to attend the MSTC sponsored Fuel Tank Maintenance Class.
- 2) Buy Fuel Tanks or Stands**
This is not an allowable cost.
- 3) Buy or Repair Stoves**
MSTC is not in the home heating business, rather we are in the prevention business. Our goal is to prevent damage to oil stoves, due to improper fuel tank maintenance.

* MSTC has found that Hydrasorb spin on filters work the best for our conditions. They stop water and "junk" from getting into the stove, thus preventing costly damage. Plus they are less likely to leak, and easier to change.

The Mt. Sanford Tribal Consortium has taken steps in the communities of Chistochina and Mentasta to educate residents about the negative effects of fuel spills and the steps that people can take to minimize the threat. They also offer residents tools that they can borrow from the tribal office which allows them to keep up on maintenance of home fuel tanks.

Fuel Storage and Use for Homes

To ensure that your heating oil tank and fuel lines have a long and trouble-free life, there are some easy steps you can follow. These practices will protect the investment of your home and will help prevent costly spills and cleanups.

Know the condition of your tank. A monthly check is recommended as a preventive maintenance tool. Report any sudden change in product level or any noticeable problems to a heating repair professional or your oil supplier.

Understand your tank system and how it works. You should know the tank size, age, construction material (tank and piping) and who to call if a repair is needed. Keep track of all deliveries and how much fuel you use.

Respond to cleaning up a spill. If obvious signs of a leak are found (such as petroleum vapors, oil on property, etc.), immediately report the leak to the Alaska Department of Environmental Conservation. The sooner you cleanup a spill, the less it will cost you.

Your tank should be:

- At least six inches above the ground and supported by solidly attached legs or saddle-braces that are resting upon a well-drained, solid masonry footing, such as a concrete pad or pier blocks set on a gravel pad.
- Equipped with a fuel-level gauge that is functioning properly.
- Located where snow or ice sliding off the roof will not damage or tip the tank over, or damages the fuel lines.
- Checked regularly for signs of rust, wet spots, or excessive dents on the tank's surface.
- Checked regularly for signs of drips or leakage around the fuel lines, filters, drain plugs and valves.
- Checked regularly for signs of spills around the vent pipe and the tank fill area.



REPORT ALL OIL AND HAZARDOUS SUBSTANCE SPILLS

ALASKA LAW REQUIRES REPORTING OF ALL SPILLS

During normal business hours

contact the nearest DEC Area Response Team office:

Central Alaska	Anchorage	phone:	(907) 269-3063
		fax:	(907) 269-7648
Northern Alaska	Fairbanks	phone:	(907) 451-2121
		fax:	(907) 451-2362
Southeast Alaska	Juneau	phone:	(907) 465-5340
		fax:	(907) 465-2237

**Outside normal business hours, call:
1-800-478-9300 (International 1-907-428-7200)**



Alaska Department of Environmental Conservation
Division of Spill Prevention and Response

rev. June/2010

Spill Contact Information

Alaska Department of Environmental Conservation					
Discharge Notification and Reporting Requirements <i>AS 46.03.755 and 18 AAC 75 Article 3</i>					
Notification of a discharge must be made to the nearest Area Response Team during working hours:					
Anchorage	(907) 269-3063 (907) 269-7648 (FAX)	Fairbanks	(907) 451-2121 (907) 451-2362 (FAX)	Juneau	(907) 465-5340 (907) 465-2237 (FAX)
OR					
to the 24-Hour Emergency Reporting Number during non-working hours: 1-800-478-9300 (International 1-907-428-7200)					
Notification Requirements					
Hazardous Substance Discharges					
Any release of a hazardous substance must be reported as soon as the person has knowledge of the discharge.					
Oil Discharges					
■ TO WATER					
• Any release of oil to water must be reported as soon as the person has knowledge of the discharge.					
■ TO LAND					
• Any release of oil in <i>excess of 55 gallons</i> must be reported as soon as the person has knowledge of the discharge.					
• Any release of oil in <i>excess of 10 gallons, but 55 gallons or less</i> , must be reported within 48 hours after the person has knowledge of the discharge.					
• A person in charge of a facility or operation shall maintain, and provide to the Department on a monthly basis, a written record of any discharge of oil <i>from 1 to 10 gallons</i> .					
■ TO IMPERMEABLE SECONDARY CONTAINMENT AREAS					
• Any release of oil <i>in excess of 55 gallons</i> must be reported within 48 hours after the person has knowledge of the discharge.					
Special Requirements for Regulated Underground Storage Tank (UST) Facilities*					
If your release detection system indicates a possible discharge, or if you notice unusual operating conditions that might indicate a release, you must notify the Storage Tank Program at the nearest DEC Office within 7 days:					
Anchorage	(907) 269-7886 (907) 269-7679				
*Regulated UST facilities are defined at 18 AAC 78.005 and do not include heating oil tanks. rev. June/2010					

Spill Notification Form



ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
OIL & HAZARDOUS SUBSTANCES SPILL NOTIFICATION FORM

CLEAR FORM

ADEC USE ONLY

ADEC SPILL #:		ADEC FILE #:		ADEC LC:	
PERSON REPORTING:		PHONE NUMBER:		REPORTED HOW? (ADEC USE ONLY) <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> Troopers	
DATE/TIME OF SPILL:		DATE/TIME DISCOVERED:		DATE/TIME REPORTED:	
INCIDENT LOCATION/ADDRESS:		DATUM: <input type="checkbox"/> NAD27 <input type="checkbox"/> NAD83 <input type="checkbox"/> WGS84 <input type="checkbox"/> Other _____		PRODUCT SPILLED:	
		LAT. _____			
		LONG. _____			
QUANTITY SPILLED: <input type="checkbox"/> gallons <input type="checkbox"/> pounds	QUANTITY CONTAINED: <input type="checkbox"/> gallons <input type="checkbox"/> pounds	QUANTITY RECOVERED: <input type="checkbox"/> gallons <input type="checkbox"/> pounds	QUANTITY DISPOSED: <input type="checkbox"/> gallons <input type="checkbox"/> pounds		
POTENTIAL RESPONSIBLE PARTY:		OTHER PRP, IF ANY:		VESSEL NAME:	
<i>Name/Business:</i>					
<i>Mailing Address:</i>				VESSEL NUMBER:	
<i>Contact Name:</i>					
<i>Contact Number:</i>				> 400 GROSS TON VESSEL: <input type="checkbox"/> Yes <input type="checkbox"/> No	
SOURCE OF SPILL:				CAUSE CLASSIFICATION:	
CAUSE OF SPILL: <input type="checkbox"/> Under Investigation				<input type="checkbox"/> Accident <input type="checkbox"/> Human Factors <input type="checkbox"/> Structural/Mechanical <input type="checkbox"/> Other	
CLEANUP ACTIONS:					
DISPOSAL METHODS AND LOCATION:					
AFFECTED AREA SIZE:	SURFACE TYPE: <i>(gravel, asphalt, name of river etc.)</i>		RESOURCES AFFECTED/THREATENED: <i>(Water sources, wildlife, wells, etc.)</i>		
COMMENTS:					

ADEC USE ONLY

SPILL NAME:		NAME OF DEC STAFF RESPONDING:		C-PLAN MGR NOTIFIED? <input type="checkbox"/> Yes <input type="checkbox"/> No	
DEC RESPONSE: <input type="checkbox"/> Phone follow-up <input type="checkbox"/> Field visit <input type="checkbox"/> Took Report		CASELOAD CODE: <input type="checkbox"/> First and Final <input type="checkbox"/> Open/No LC <input type="checkbox"/> LC Assigned		CLEANUP CLOSURE ACTION: <input type="checkbox"/> NFA <input type="checkbox"/> Monitoring <input type="checkbox"/> Transferred to CS or STP	
COMMENTS:		Status of Case: <input type="checkbox"/> Open <input type="checkbox"/> Closed		DATE CASE CLOSED:	
REPORT PREPARED BY:				DATE:	

Revised 2/5/2008