

# Spill Prevention and Response

Alaska Department of Environmental Conservation  
Prevention Preparedness and Response Program

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AASB Maintenance Employee Conference

October 17, 2018



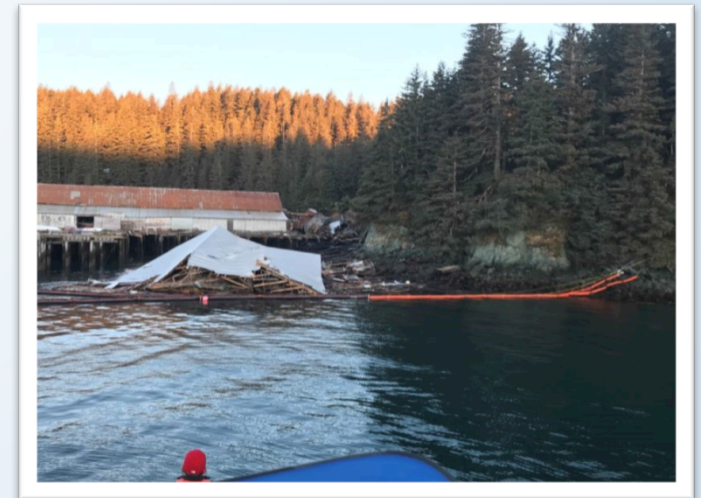
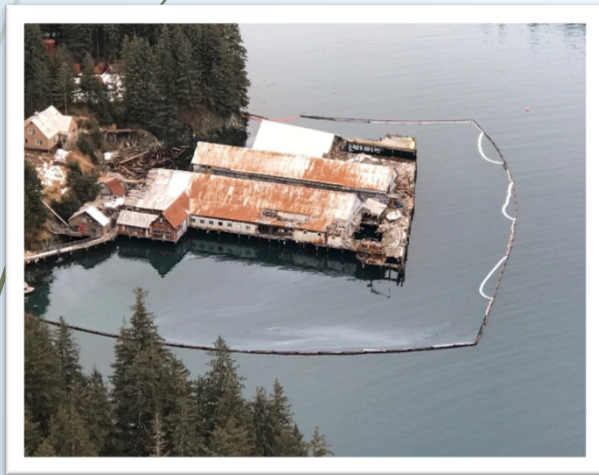
# AGENDA

- Spill Prevention and Response Mission
- Your role in prevention
  - Home Heating Oil Tanks
  - Class 2 Facilities
- Your role in preparedness
- Your role in response
  - Spill Notification Requirements
  - Responsible Party?
  - Safety
- Questions
- Let's play!



# SPAR MISSION

Protect public safety, public health, and the environment through prevention, preparedness, and response to oil and hazardous substance releases





# Prevention



# Prevention tools

- International Agreements and Relationships
- Potential Places of Refuge
- Emergency Towing System
- Relationships and partnerships with state, federal and local agencies and communities




# PREVENTION IS THE ANSWER

“an ounce of prevention is worth a pound of cure”



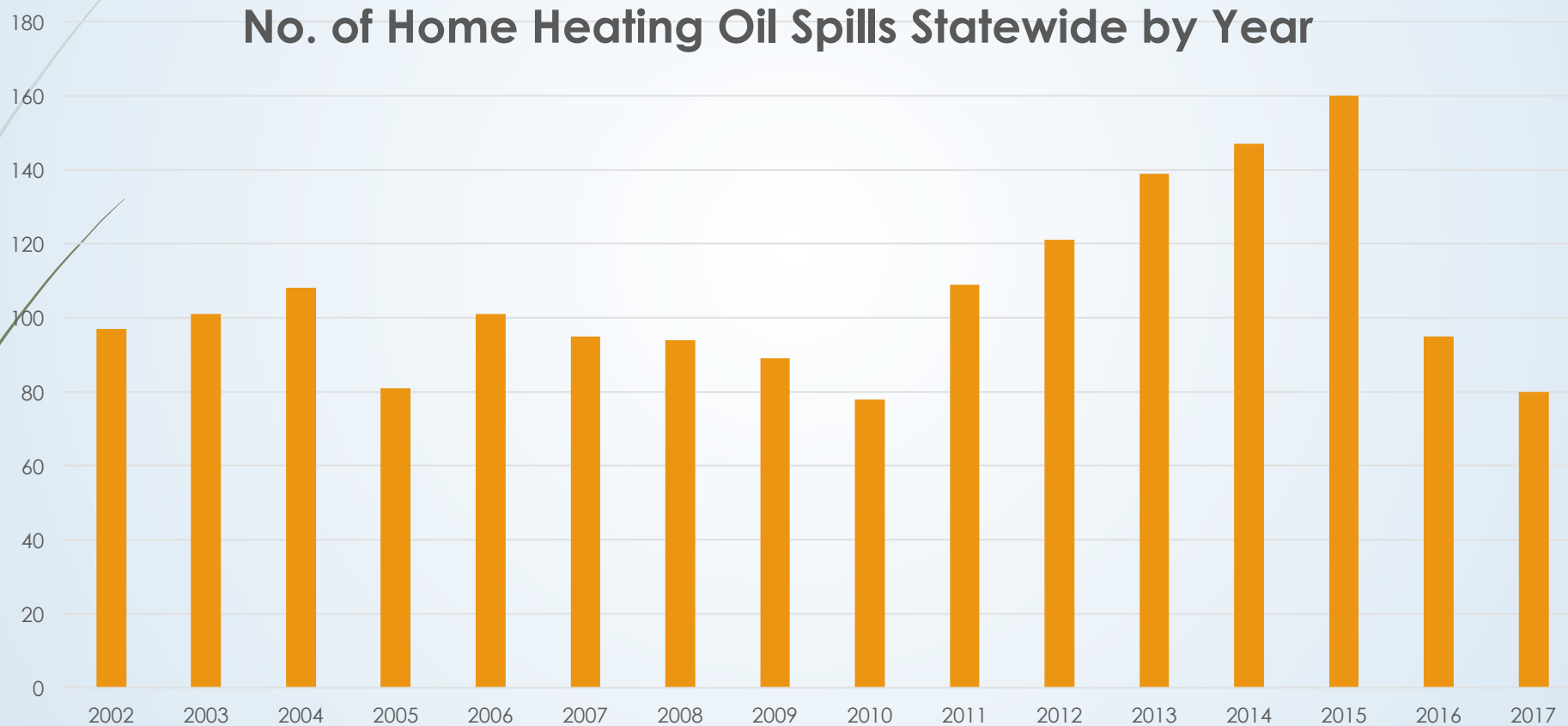




# The Usual Suspects: Home Heating Oil Tanks



# Number of Reported Heating Oil Tank Spills, Statewide



How many more are unreported and unnoticed?



# OIL SPILL COST BY DROPS

RATE OF LEAK	GALLONS PER YEAR LOST	DOLLAR PER YEAR LOST*	TONS OF CONTAMINATED SOIL**
Drop Every 10 Seconds	40	\$160	150
Drop Every 5 Seconds	80	\$320	300
Drop Every Second	410	\$1,640	1,500
Three Drops Every Second	1,200	\$4,800	4,500
Stream that Breaks into Drops	8,600	\$34,400	32,000

(Drops are approximately 11/64 inch in diameter.)

\*At \$4.00 per gallon of heating oil

\*\* Average 1000 ppm total petroleum hydrocarbons





# Periodic Inspections and Maintenance Can Save You Money!



Visit our website!

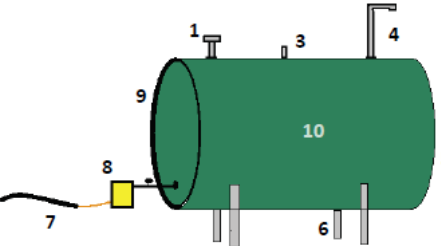
The DEC website contains a handy checklist for inspecting and maintaining your home heating oil tank in an environmentally-conscious and cost-saving way.

<https://dec.alaska.gov/spar/ppr/prevention-preparedness/hho-tanks/>

## Prevent Oil Spills & Save Money Too!!

Use this checklist to inspect your heating oil tank.

Can you answer YES to all 10 questions?

10) Is the fuel tank less than 15 years old? If not, you may want to consider replacing it. [ ] NO [ ] YES	1) Does the fill pipe have a cover to keep water out and is the area around it free of stains? [ ] NO [ ] YES	2) Is the fuel system protected from overhead damage, such as falling ice, snow or trees? [ ] NO [ ] YES	3) If you have a fuel gauge and overfill alarm do they work? [ ] NO [ ] YES
9) Is the tank, especially the ends, free of stains or wet spots? [ ] NO [ ] YES			4) Is the vent pipe clear of debris and insects? [ ] NO [ ] YES
8) Is the fuel filter protected from damage and free of excess water? [ ] NO [ ] YES			5) Is the tank free of dents and rust? Is it painted to protect it? [ ] NO [ ] YES
7) Are the fuel lines protected (lines in the ground or concrete are inside liquid-tight conduit) from damage? [ ] NO [ ] YES	6) Are the tank legs or stand the right size, in good condition and on a stable foundation? The tank should not be touching the ground. [ ] NO [ ] YES		

### Tips for Underground Tanks!!

- Check the tank for water! Excessive amounts of water can indicate the tank is leaking and can corrode the tank from the inside. Ask your fuel provider to test your tank once a year.
- Have the system pressure tested if possible! Return lines can leak for years with no indication of a problem and can cost you a lot in lost fuel.
- Check for dead vegetation, sheen and odors in low areas! These are all signs of a fuel spill.
- How old is your tank? Most underground tanks fail eventually, some in as little as five years. If you don't know how old your tank is, maybe it's time to replace it.
- Are electric lines buried near the fuel tank or fuel lines? Electrolysis can cause premature failure of the tank or fuel lines.



**Alaska Department of  
Environmental Conservation**  
Division of Spill Prevention and  
Response

ADEC Area Response Teams  
Anchorage: (907)-269-3063  
Fairbanks: (907)-451-2121  
Juneau: (907)-465-5340  
Evening & Weekends: 1-800-478-9300

For more information on  
heating oil systems visit:  
[www.dec.alaska.gov/spar/perp/hho.htm](http://www.dec.alaska.gov/spar/perp/hho.htm)





# BETTER Installation Practices



This tank has an enclosure that will protect it from overhead damage like falling ice & snow.

This tank has been painted to prevent exterior corrosion.



This stand is in good condition and has a stable foundation.



These lines are coiled to help absorb shock of falling debris.



This line is protected by a liquid-tight conduit.

# BAD Installation Practices

This tank has a number of problems: no stand, very rusty and a large wet spot.



These fuel lines are not protected and can easily be broken.



Pits are a sign of corrosion and can lead to tank failure.



This stand is starting to fail & is close to no longer being able to support the tank.



This tank is on a crumbling foundation.





## Inspect your tank

Check for tank stability. Legs for tanks should be resting upon a solid foundation. The bottom of the tank should be off the ground and clear of debris.



## Inspect your tank

Replace your tank if it is rusting or if the tank appears damp! Painting tanks with a rust inhibitor paint will prolong the life of your tank.





## Inspect your tank

Check for ice, snow or tree limbs that can fall on your tank or fuel lines. Photo shows a tank at risk of ice and snow falling on it during the winter.



## Inspect your tank

Check fuel lines to make sure they are not damaged or leaking. Pay close attention to connections or joints which can fail.



## Inspect your tank

Check your tank for water!  
Water can corrode a tank from the inside out or cause the fuel filter to crack during cold weather.





## Inspect your tank

Check the tank vent for any obstructions like snow, ice, insects or spiders.



# Signs of a Heating Oil Tank Spill



- Keep track of your fuel consumption. Dramatic increases in fuel consumption may indicate your tank or fuel line is leaking.
- If you have a fuel gauge or an overfill alarm, make sure they are functioning properly.
- Check for fuel stains around the fill or vent pipes.
- Check around the tank for visible signs of a spill such as, sheens on water surfaces, puddles of oil and unexplained dead vegetation.





# What to Do in Case of a Spill

- 1) Try and identify the source of the spill or leak.
- 2) If it is safe, stop or contain the spill to the best of your abilities. (This may mean calling your fuel provider and having the tank emptied.)

- 3) Report the spill to your local ADEC office.

During Normal Business Hours

Phone: (907) 269-3063

Fax: (907) 269-7648

Outside Normal Business Hours

Toll Free: 1-800-478-9300

International: 1-907-269-0667



# The Usual Suspects: Class 2 Facilities



# Class 2 Facilities

- ▶ 1,000 – 420,000 gallon tanks
- ▶ Onshore and non-residential (does not include home heating oil tanks)
- ▶ Noncrude oils such as:
  - ▶ Gasoline
  - ▶ Diesel
  - ▶ Aviation fluid
  - ▶ Motor fuels
  - ▶ Use oils
  - ▶ Lubricants



# Examples of Where Class 2 Facilities May Exist

- Schools
- Gas stations
- Hotels
- Businesses
- Community buildings
- Bulk fuel facilities
- Restaurants
- Hospitals





# Tank Farms and Fueling Operations

- ▶ Every community has one...or two...or three?
  - ▶ Big Unknowns
- ▶ Large volume
  - ▶ High Penalty for Failure
  - ▶ Human interface
- ▶ Changing Landscape
- ▶ Aging infrastructure
  - ▶ Diminishing dollars



From Shageluk WEAR assessment





# Register Class 2 Facilities on the DEC Website

- Download the form from [DEC.Alaska.gov/SPAR/PPR/Prevention-Preparedness/Class-2-Facilities](https://dec.alaska.gov/SPAR/PPR/Prevention-Preparedness/Class-2-Facilities)

Register additions or changes to Class 2 facilities within 30 days

- Submit the form by mail or email

 **CLASS 2 FACILITY REGISTRATION AND NOTIFICATION FORM**  
ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
410 Willoughby Avenue, Suite 303, P.O. Box 111800, Juneau, AK 99811-1800  
Phone: 907-465-5237, E-mail: [dec.spar.class2@alaska.gov](mailto:dec.spar.class2@alaska.gov) 

The following information, as applicable, must be provided for each Class 2 facility. Complete and submit this form no later than 30 days after the following events: a facility was placed in service; an aboveground storage tank (AST) at a previously-registered facility is placed in service or permanently closed; the facility no longer meets the definition of a Class 2 facility; or a change in owner or operator. Submit the form by mail or email. If additional room is needed, use the additional forms available at the Class 2 facility webpage:  
<https://dec.alaska.gov/spar/ppr/prevention-preparedness/class-2-facilities/>  
Refer to 18 AAC 75.835 - 18 AAC 75.849 or contact the department if you have questions.

**A. Purpose of form (check all that apply):**  
☐ Facility registration ☐ No longer a Class 2 facility ☐ Change of owner(s) or operator(s)  
☐ AST(s) placed in service ☐ AST(s) permanently closed

**B. Facility Information**  
Facility Name: \_\_\_\_\_ Year Placed in Service: \_\_\_\_\_  
Primary Facility Contact: \_\_\_\_\_ Title: \_\_\_\_\_  
Email: \_\_\_\_\_ Phone Number: \_\_\_\_\_  
Facility Physical Address (or latitude and longitude): \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Fuel received by (check one): ☐ Water ☐ Air ☐ Land Name of primary fuel supplier: \_\_\_\_\_

**C. Landowner<sup>1</sup> Information**  
Organization: \_\_\_\_\_ Contact Name: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_  
Zip Code: \_\_\_\_\_ E-mail: \_\_\_\_\_ Phone: \_\_\_\_\_  
Landowner Type (check one): ☐ Industrial/Commercial ☐ Individual ☐ Corporation ☐ State ☐ Military  
☐ Federal (Non-Military) ☐ Municipal ☐ Tribal Government ☐ Nonprofit ☐ Other \_\_\_\_\_


**D. Facility Owner<sup>1</sup> Information (if same as above write "Same")** How many owners does this facility have? \_\_\_\_  
Organization: \_\_\_\_\_ Contact Name: \_\_\_\_\_  
Mailing address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_  
Zip Code: \_\_\_\_\_ E-mail: \_\_\_\_\_ Phone: \_\_\_\_\_  
Facility Owner Type (check one): ☐ Industrial/Commercial ☐ Individual ☐ Corporation ☐ State ☐ Military  
☐ Federal (Non-Military) ☐ Municipal ☐ Tribal Government ☐ Nonprofit ☐ Other \_\_\_\_\_

**E. Facility Operator<sup>1</sup> Information (if same as above write "Same")** How many operators does this facility have? \_\_\_\_  
Organization: \_\_\_\_\_ Contact Name: \_\_\_\_\_  
Mailing address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_  
Zip Code: \_\_\_\_\_ E-mail: \_\_\_\_\_ Phone: \_\_\_\_\_

**F. Additional Information**  
What assistance would be valuable to you and your facility? ☐ Site Visit ☐ No-fault/courtesy inspection  
☐ Educational handouts ☐ Spill response plan assistance ☐ Other: \_\_\_\_\_

<sup>1</sup> In cases with more than one land owner, facility owner or operator: a single facility contact may complete this form for all associates providing that the form contains information requested for each party. Please see the Additional Owner and Operator Form if more needed, available at the website listed at the top of this page. Alternatively, each entity may submit individual forms with applicable sections completed.

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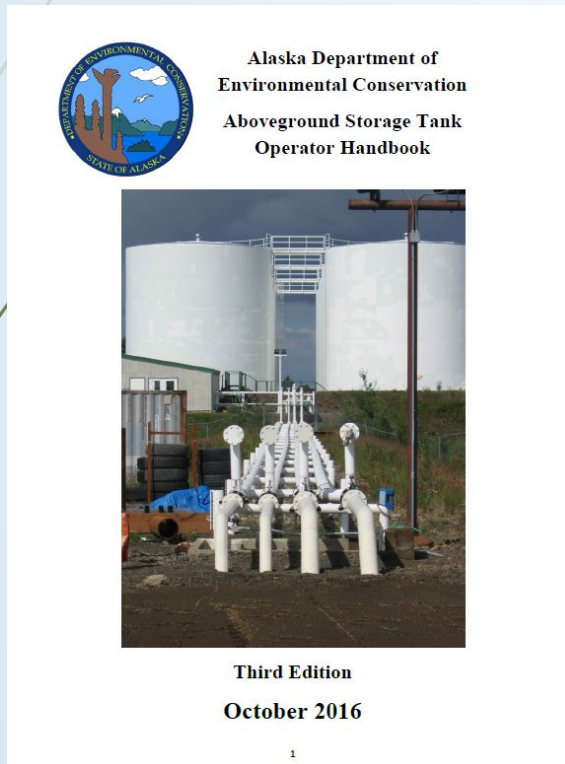




# Upcoming Class 2 Opportunities

- ▶ Class 2 facility staff will be in Nome the week of November 5 to attend and present at the Kawarek Regional Conference.
- ▶ Presentation currently scheduled at 10:30-noon on November 6
- ▶ Class 2 Coordinator – Amanda Compton 907-465-5237 or [dec.spar.class2@alaska.gov](mailto:dec.spar.class2@alaska.gov)
- ▶ Free and subsidized opportunities are listed on the Class 2 website:
  - ▶ Training information, such as the bulk fuel operator training and the Zender RACEJT program
  - ▶ Financial services such as grants and other assistance
- ▶ <https://dec.alaska.gov/spar/ppr/prevention-preparedness/class-2-facilities/outreach/>

# Resources



- Train employees annually in correct operating procedures, transfer procedures and spill prevention, preparedness and response
- Absolutely no alcohol or drugs at the facility
- Adopt a product inventory program and reconcile product and inventory data on a regular basis
- Establish and adhere to regular maintenance schedules
- Conduct routine standardized inspections, record inspection findings and take follow-up corrective actions
- Plan and design facility to recognized industry standards
- Take pride and responsibility for your AST facility

***"There is no such thing as a leak too small to fix"***

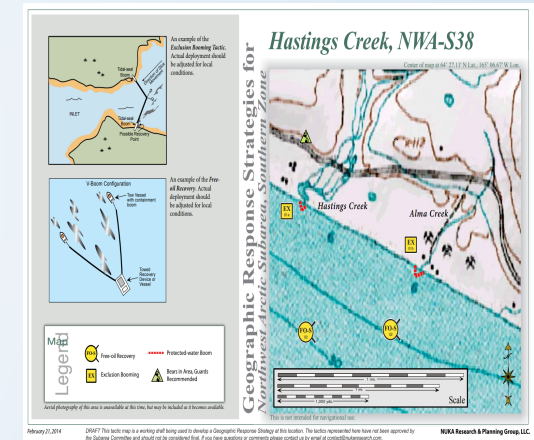
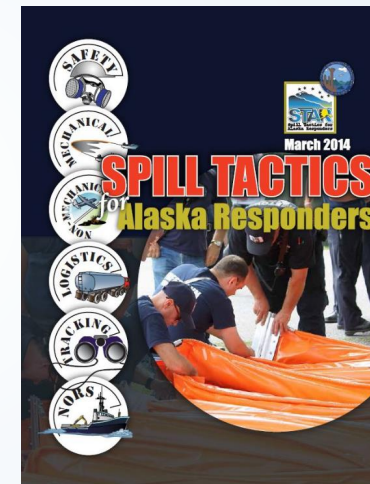
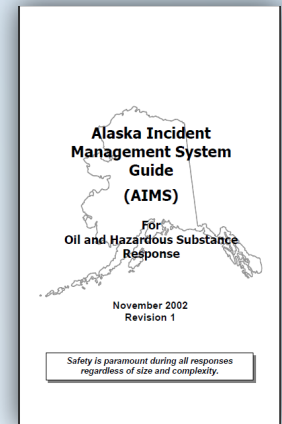
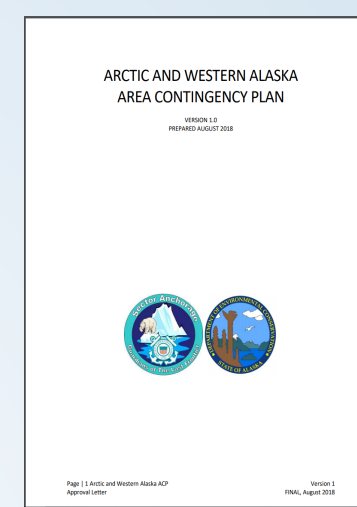
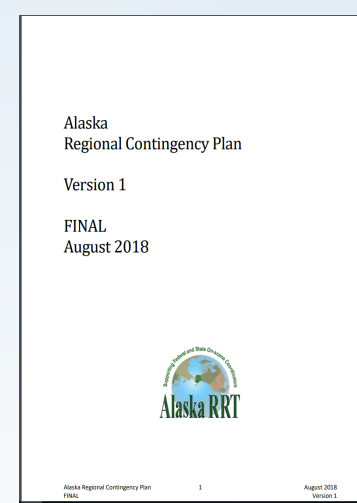




# PREPAREDNESS

# Preparedness: Plans & Tactics

- ▶ Oil Discharge Prevention and Contingency plans
- ▶ Alaska Regional Contingency Plan and 4 Area Contingency Plans
- ▶ Geographic Response Strategies
- ▶ Other State
  - ▶ Spill Tactics for Alaska Responders (STAR) manual
  - ▶ Alaska Incident Management System (AIMS) Guide
  - ▶ Tundra Treatment Guidelines
  - ▶ STAR Training Videos



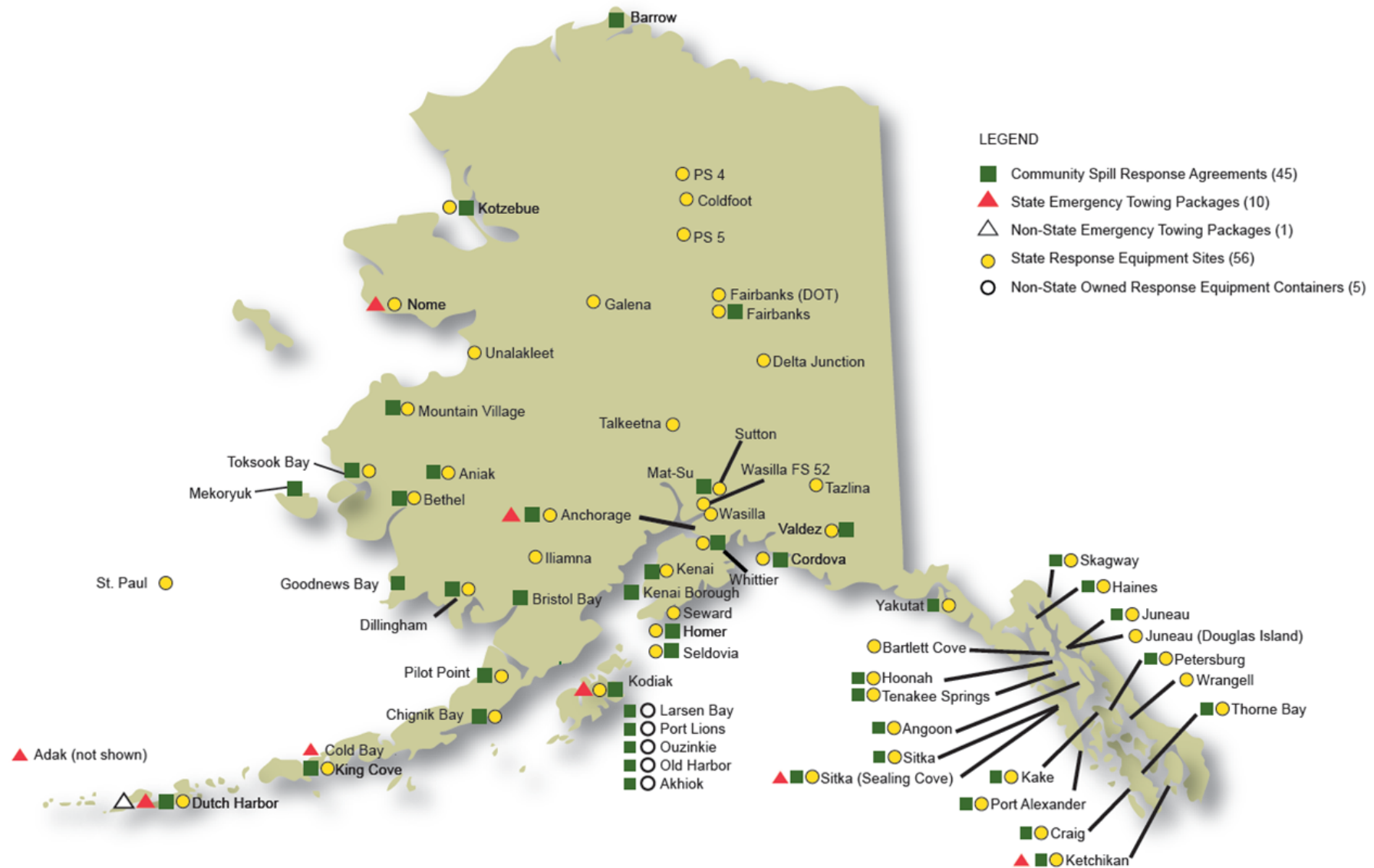
# Preparedness: Pre-Staged Spill Response Containers



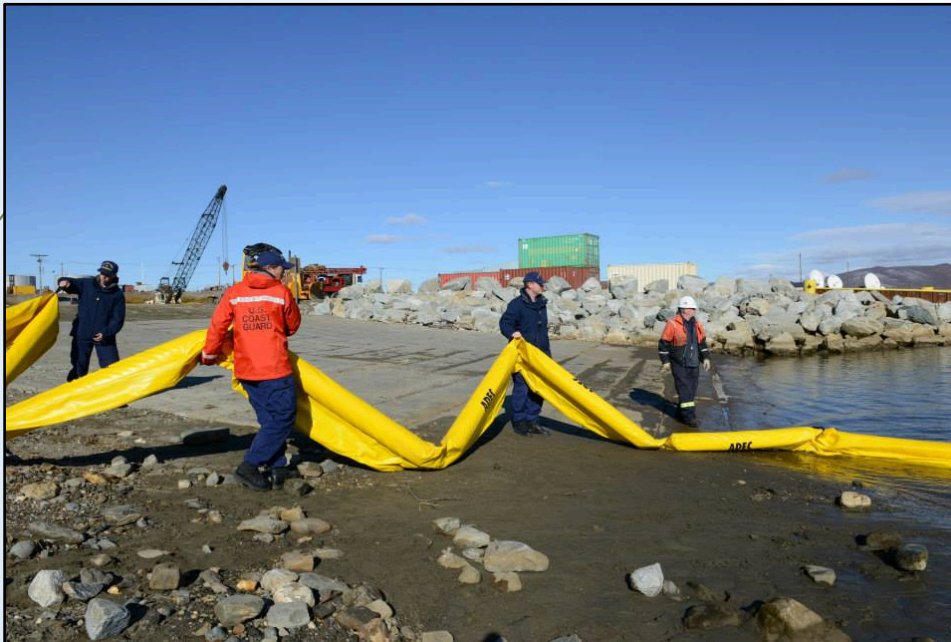


# Map of Community Spill Response Agreements, Response Equipment Containers, and Emergency Towing Packages in Alaska

as of December 4, 2014



# Preparedness: On the local level



## ▶ Have a Plan:

- SCERP
- SPCC
- FRP

## ▶ Have some supplies:

- Perryville response drum
- PPE
- Sorbent pads and boom
- Liner



# RESPONSE



# ADEC ROLE IN RESPONSE

- ▶ When an event can't be prevented, we respond.
- ▶ Response efforts are prioritized:
  - ▶ **Life/safety of responders and the public.**
  - ▶ Protection of the environment:
    - ▶ Control the source
    - ▶ Protect sensitive areas
    - ▶ Clean up spills
- ▶ We work closely with Responsible Party, USCG, EPA, response organizations, stakeholders, and community.



# ADEC ROLE IN RESPONSE

- Provide the State On-Scene Coordinator and Manage the Response for the State
- Provide Direction for Resource Protection
- Oversee response, cleanup and recovery actions to determine adequacy by the Responsible Party
- Augment the Responsible Party's Efforts
- Takeover the response if inadequate

# YOUR ROLE IN RESPONSE: Notification

**IT'S THE LAW!**  
AS 46.03.755 and 18 AAC 75.300


**REPORT  
OIL AND HAZARDOUS  
SUBSTANCE SPILLS**


**During Normal Business Hours**  
call the nearest response team office:

<b>Central Alaska:</b> Anchorage	<b>(907) 269-3063</b> Fax: (907) 269-7648
<b>Northern Alaska:</b> Fairbanks	<b>(907) 451-2121</b> Fax: (907) 451-2362
<b>Southeast Alaska:</b> Juneau	<b>(907) 465-5340</b> Fax: (907) 465-5245
<b>Alaska Pipeline:</b> Fairbanks	<b>(907) 451-2121</b> Fax: (907) 451-2362

**Outside Normal Business Hours**

<b>Toll Free</b>	<b>1-800-478-9300</b>
<b>International</b>	<b>1-907-269-0667</b>



 **Alaska Department of  
Environmental Conservation**  
Division of Spill Prevention and Response  
[www.dec.alaska.gov/spar/spillreport.htm](http://www.dec.alaska.gov/spar/spillreport.htm)

**Hazardous Substance**  
Any hazardous substance spill, other than oil, must be reported immediately.

**Oil – Petroleum Products**

**To Water**

- ◆ Any amount spilled to water must be reported immediately.

**To Land**

- ◆ Spills in **excess of 55 gallons** must be reported immediately.
- ◆ Spills in **excess of 10 gallons, but 55 gallons or less**, must be reported within 48 hours after the person has knowledge of the spill.
- ◆ Spills of **1 to 10 gallons** must be recorded in a spill reporting log submitted to ADEC each month.

**To Impermeable Secondary Containment Areas**

- ◆ Any spills in **excess of 55 gallons** must be reported within 48 hours.

**Additional Requirements for Regulated Underground Storage Tank Facilities**  
Regulated Underground Storage Tank (UST) facilities are defined at 18 AAC 78.005 and do not include heating oil tanks.

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 ADEC UST Program within 7 days.

**UST Program: (907) 269-3055 or 269-7679**



# Preliminary Spill Information

- ▶ Date/Time of Spill
- ▶ Date/Time Discovered
- ▶ Location of Spill
- ▶ What was spilled?
- ▶ How much was spilled?
- ▶ Who is the responsible party, and how can they be contacted?
- ▶ Spill Source
- ▶ What caused the spill?
- ▶ What clean up actions have happened?
- ▶ How were contaminated materials disposed of?
- ▶ What surface type was the spilled to?



# Anyone can report a spill!



- Minimize impacts
- Protect your community's health and resources
- Keep our home clean and beautiful

# YOUR ROLE IN RESPONSE

- **Are you the RESPONSIBLE PARTY?**
  - **The RESPONSIBLE PARTY is the person, company, or organization that caused the spill or operated the facility (bulk fuel tank, heating oil tank, vessel, etc.) when the spill occurred.**
  - **The RESPONSIBLE PARTY has a statutory obligation to report and respond to a spill**
  - **The RESPONSIBLE PARTY must safely control, contain, and cleanup the spill with their own resources, equipment, and workers.**
  - **If the RESPONSIBLE PARTY does not have the appropriate resources on site and employees do not have the appropriate training or experience to safely respond, the RESPONSIBLE PARTY must hire contractors with the appropriate resources.**



# RESPONSE SAFETY

Your Safety is ADEC's top priority  
—

If it Doesn't Look Right,  
**Don't Do It...**

If it Doesn't Feel Right,  
**Don't Do It...**

If You're Not Sure,  
**Don't Do it!**



# Questions?

Alaska Department of Environmental Conservation  
Division of Spill Prevention and Response  
Prevention, Preparedness and Response Program

Kathy Shea

907-269-3071

[kathy.shea@alaska.gov](mailto:kathy.shea@alaska.gov)

