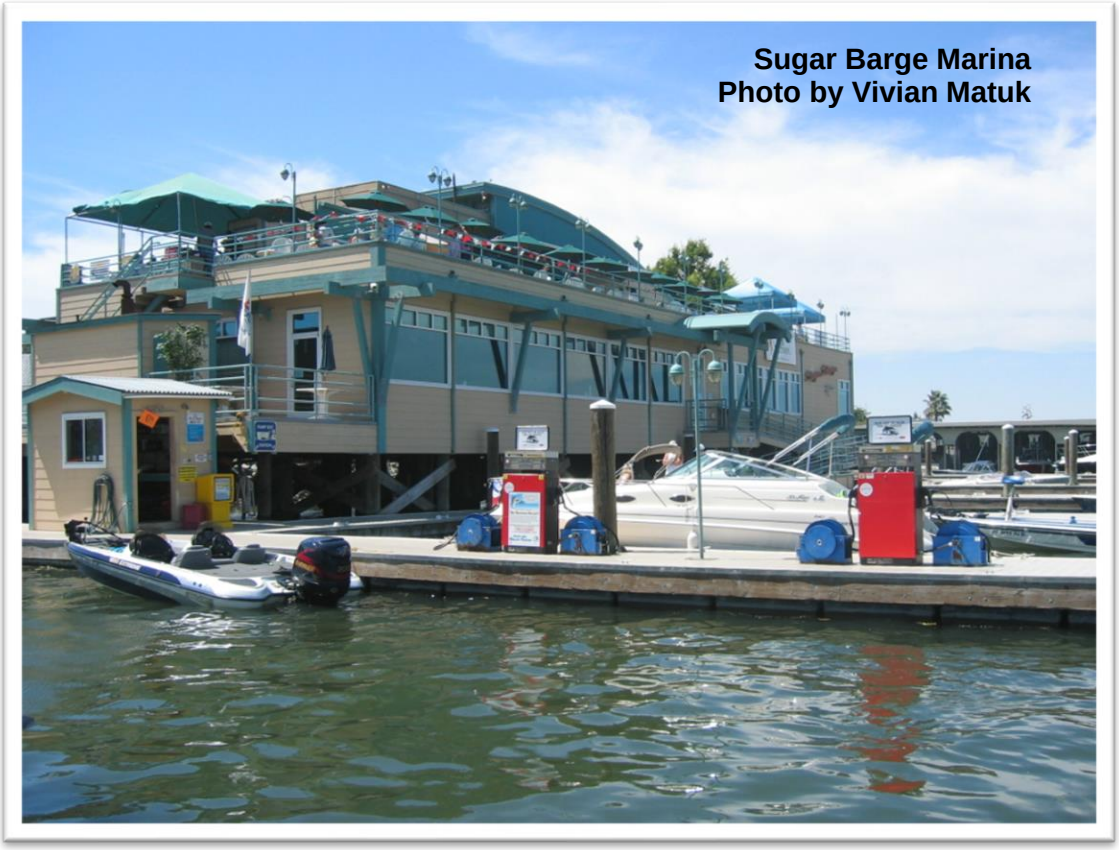
Small Craft Fueling Docks
Best Management Practices



Sugar Barge Marina
Photo by Vivian Matuk

March 2021

CALIFORNIA DEPARTMENT OF FISH & WILDLIFE

CALIFORNIA STATE PARKS SINCE 1864 ®

CALIFORNIA COASTAL COMMISSION

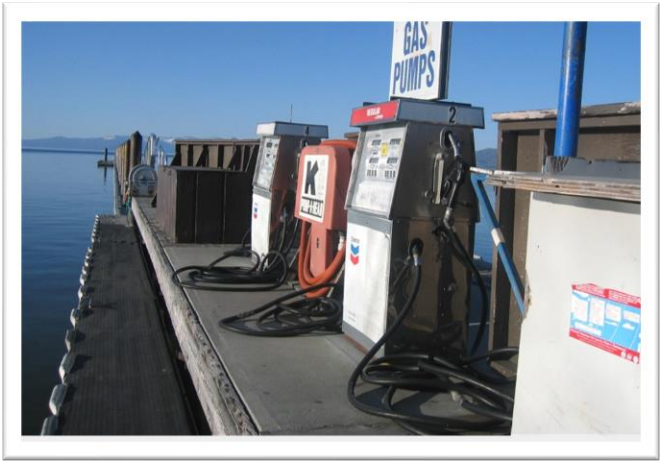
Introduction and Acknowledgements

This informational document is intended as an educational resource for small craft fueling dock operators to provide Best Management Practices (BMP) for preventing pollution incidents during fuel dock operations.

The document and reporting templates are a collaborative effort between the California Department of Fish and Wildlife's Office of Spill Prevention and Response, the California State Parks Division of Boating and Waterways, the Division of Interpretation and Education and the California Coastal Commission in collaboration with representatives from public and private marina operators, regulatory agencies and others. It was developed based on research and results from a survey conducted among owners and operators at California marinas with fueling docks.

Thank you for your valuable recommendations:

Adam Smoyer	Long Beach Shoreline Marina
Brock de Lappe	Oakland Marinas
Chris Lauritzen	Lauritzen Yacht Harbor
Christine Kaplan	Gashouse Cove Marina, Inc. San Francisco Marina - Fuel Dock
Diane Colwell	Monterey Bay Boatworks Co, Ltd/ Breakwater Cove Marina
Jeremy Thomas	U.S. Guard Sector San Francisco Incident Management Division
Laura Fisher	California State Water Resources Control Board
Michael DeLio	Maxum Petroleum, Marine Division
Tom Dunkelman	U.S. EPA Region 9
Virginia St. Jean and Darryn Elder-Gotta	San Francisco Department of Public Health



Camp Richardson Marina, Lake Tahoe
Photo by Vivian Matuk

The goal of this document is to share Best Management Practices (BMPs) related to operations with small craft fueling dock operators and staff. BMPs are activities, procedures, and structural facilities that, when used individually or in combination, prevent or reduce the release of petroleum to water. Even small spills are a problem as their cumulative impact is significant. The most effective way to minimize petroleum hydrocarbon (gasoline, diesel-*collectively known as fuel*-, oil) pollution at small craft fueling docks is to locate, design, build, and operate a boat fuel dock or station so that most spills are prevented and those that do occur are quickly contained and cleaned up.

California has approximately 230 small craft fueling docks. Fuel docks vary widely in design but are generally comprised of storage tanks with aboveground, underground, over-water, and underwater piping systems[1].

- Regulatory oversight of small craft fueling docks is complex with the State Water Resources Control Board's Underground Storage Tank (UST) program, local fire authorities and Certified Unified Program Agencies (CUPAs) all have some level of authority.
- The National Fire Protection Association (NFPA) establishes standards which may apply to small craft fueling docks, check with your local fire authority for more information.
- UST Systems require operating permits.
- Under the Aboveground Petroleum Storage Act (APSA), CA Health and Safety Code, Chapter 6.67, owners/operators of aboveground tanks (storage of petroleum products in single tanks exceeding 1,320 gallons, and/or aggregate storage of petroleum in containers 55 gallons or greater that when combined, exceed 1,320 gallons) are required to file storage statements to their local CUPA's, pay a fee and implement measures to prevent spills[2].

To learn more about applicable regulations and requirements visit:

- California Waterboards Underground Storage Tank Program
- California Waterboards Above Ground Storage Tank Program
- Office of the State Fire Marshall, Farm Fact Sheet
- National Fire Protection Association

[1] State Water Resources Control Board Underground Storage Tank Program. 2006, August. *Marine Fueling Facility Project Report*. Retrieved June, 2019, from http://www.swrcb.ca.gov/ust/leak_prevention/marina/docs/mff_projectreport.pdf

[2] San Francisco Department of Public Health. January 2011. Pollution Prevention Toolkit for Maritime Industries. Retrieved June, 2019 from https://www.sfdph.org/dph/files/EHSdocs/Green/MarineFinalReport.pdf

Planning

A **Spill Prevention, Control and Countermeasure Plan** (SPCC) is a federal requirement (40 CFR Part 112) for all facilities that provide above ground oil/fuel storage capacity in excess of 1,320 gallons or one above ground container of oil with a capacity of more than 660 gallons, or underground storage capacity in excess of 42,000 gallons and there is a reasonable expectation of an oil discharge into or upon navigable waters of the U.S. or adjoining shorelines. Even if these regulations do not apply to your facility, an SPCC or Oil Spill Contingency Plan should still be developed. In California, those sites that are regulated under the Aboveground Petroleum Storage Act and they must submit notifications to their local CUPA and maintain current SPCCs. **** It is your responsibility to review this plan on an annual basis. ****

The regulation requires that SPCC plans be certified by a professional engineer. Not all marinas are required to prepare and submit an SPCC plan, but if fuel is stored or transferred at a marina, even if only from a portable gasoline container filled at a distant gas station, being prepared to handle a spill is good environmental practice.

Important Elements of an SPCC Plan

- Facility diagram and description of the facility
- Oil discharge predictions
- Appropriate secondary containment or diversionary structures (containment boom yellow or orange)
- Facility drainage
- Site security
- Facility inspections
- Requirements for bulk storage containers including inspections, overfill, and integrity testing requirements
- Transfer procedures and equipment (including piping)
- Requirements for qualified oil-filled operational equipment
- Loading/unloading rack requirements and procedures for tank cars and tank trucks
- Brittle fracture evaluations for aboveground field constructed containers
- Personnel training and oil discharge prevention briefings
- Recordkeeping requirements
- Five-year plan review
- Management approval
- Plan certification (by a Professional Engineer (PE) or in certain cases by the facility owner/operator)

✓ **Implement Your SPCC**. The SPCC plan should be written to apply to all locations in the marina where fuel or oil is stored or transferred, and it should clearly explain spill emergency procedures, including health and safety, notification, and spill containment and control measures. For additional information and the SPCC components, visit U.S. EPA National Management Measures Guidance.

Training

✓ Train fuel dock staff in spill prevention, containment, and cleanup procedures.

- Marinas should have at least one key staff member fully trained and certified in spill management, and this person should be designated to be responsible for inspection, training, and control of any spill. Hazardous materials response training, such as 40-hour HAZWOPER training, First Responder Awareness and First Responder Operations are recommended. Contact the local agency responsible for hazardous waste response or a fire department for information.

- Document all training sessions. Keep records of all training sessions for spill response.

- All staff members should know the location of absorbent materials and how to use them to remove the fuel immediately from the water or ground. In addition, employees should know the location of the emergency shut-off switch, fire extinguishers, spill materials and spill reporting procedures.

- Staff should properly dispose of used absorbents as hazardous waste. Check CalRecycle Directory for County facilities.

- Regular training drills ensure that staff is familiar with the proper use of these materials. NFPA recommends employers host trainings and practice drills at least twice a year. You may want to invite the local fire department to host a training session at your facility regularly.

✓ **Reporting -** Staff should be trained on proper spill reporting procedures.

Required Notification

Call **BOTH of** the following agencies, as follows:

Note: If you are the responsible party (the spiller), you need to make this notification within 30 minutes.

a. National Response Center: 1-800-424-8802 or 202-267-2675

b. State Warning Center 1-800-852-7550 or 800-OILS-911

Recommended Notification

a. Local United States Coast Guard unit and/or harbor marine patrol as appropriate

b. 9-1-1 or the Local Emergency Response Agency (such as Fire Department) and local Certified Unified Program Agency (CUPA)

State law requires the spiller (or responsible party) to notify these agencies in the event of a spill. Failure to report can result in potential fines. Reporting a spill does not always result in the assessment of fines. Immediate notification is required so that cleanup efforts can begin promptly. Anyone is encouraged to report a spill that presents a threat to public health or the environment.

General

- ✓ Assure that mooring points (such as Cleats) are solid and spaced properly to provide secure tight tie-ups.
- ✓ Keep dock surfaces maintained, and clear of loose gear or obstructions that could impede foot traffic or cause tripping hazards; maintain dock stability with proper floatation to avoid unsafe (unstable) walking surface.
- ✓ Keep the dock and fuel systems clean and free of trash and debris.
- ✓ At all times, ensure proper lighting at the dock.

San Francisco Marina
Photo by Vivian Matuk

****Refer to the Boating Facilities Best Management Practices for operational guidelines to consider during health emergencies such as COVID 19.**

Fuel System

- ✓ Conduct regular inspections (ideally daily inspections) of all tank system components including fuel pumps, hoses, fuel lines, valves, connectors, and dispensers (as prescribed in site's Spill Prevention Plan) to detect excessive wear, damage, leakage, or other potential problems.
- ✓ Keep an inspection log as both a reminder and a record, and to help plan for routine maintenance. Likewise, take periodic fuel inventories to detect any product loss and verify accuracy of gauges. If electronically monitored, check monitoring panel for any indications of potential leaks or malfunctions. If visually monitored, log inspection and note and report any problem areas. Determine if any follow up action is needed!
- ✓ Regular cleaning and maintenance of the fueling system components and leak detection devices will minimize problems. Repair damaged and/or replace deteriorated parts immediately; take a pump (or hose, etc.) out of service pending repair or replacement, as even small leaks or drips may make the situation worse and become larger problems before a service technician can repair them.

Operations

- ✓ Always have a trained employee on duty to supervise, monitor and control fueling operations at the fuel dock; this will establish that the boater is present, not impaired/distracted, and limit problems during the fueling process. If staff has concerns in this regard, monitor the boater closely, or refuse service.

- ✓ Follow the practice of wrapping the nozzle in an absorbent pad or fuel bib when handing across the water.

- ✓ If no attendant is present there should be a method to monitor the dock visually and communicate with the boater on the dock (such as video, monitoring and/or intercom), either way, staff should be able to shut off the fuel pump(s) if a problem develops.

- ✓ Allow fueling ONLY in designated areas and at approved fueling stations.

- ✓ Consider storing hoses on racks or reels when not in use to reduce tripping hazards, damage from dragging over dock surfaces, or degradation by sunlight.

- ✓ Nozzles should have an automatic shut off feature.

- ✓ Hang and keep nozzle upright when not in use to prevent fuel remaining in hose from draining out after use. When the fuel dock is closed, the nozzle should be locked in its slot on the side of the fuel pump.

- ✓ Provide secondary containment (such as catchment or pan) around the dispensing area, fuel pumps and associated connections to prevent oil spills from flowing into waterways.

- ✓ If there is an onshore fueling station, install curbing or grade the area around the fueling station to prevent gasoline or diesel from flowing into the waterways.

- ✓ Post signage and prohibit washing spills into the waterways and/or storm drains. **It is illegal**.

- ✓ Post signage and prohibit the use of soaps, dispersing agents or detergents for spill cleanup. **It is illegal**.

- ✓ If safe, recommend all passengers disembark during fueling operations. Remember, when passengers are removed from the vessel, fewer people are exposed to a risk of injury if a fire occurs.

- ✓ Recommend boat operator to use an absorbent sheet to cover the vent in case of a “burp.”

- ✓ Recommend boat operator to use an oil absorbent, fuel donut or fuel bib around the deck filler (available at some marinas and marine supply stores) to catch spills and overflow. Recommend boat operator to properly dispose of fuel-soaked absorbents as hazardous waste.

For more best management practices for boaters check the following ***fueling video***

Proper Safety Equipment

Fire Extinguishers

✓ At a minimum, NFPA requires a minimum of an 80 B:C type extinguisher. This extinguisher would cover an area of eighty square feet and would be appropriate for both flammable liquids and electrical fires. Consult your local **Fire Department** for more information and proper fire extinguisher locations.

✓ Depending on the vessels fueled at your facility, a foam dispensing cart may also be an appropriate piece of safety equipment. Consult your local **Fire Department** for more information.

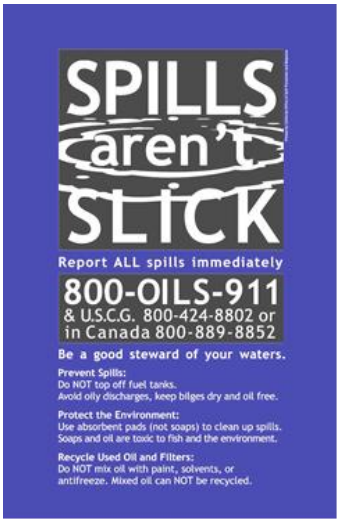
Emergency Fuel Shut-Off Switch

✓ A minimum of 25 feet away from the fuel pump, NFPA recommends an emergency fuel shut-off switch. The switch should be clearly labeled with a sign with two-inch red letters. Consult your local **Fire Department** for more information.

Signage

✓ Install easy-to-read signs on the fuel dock that explain proper fueling procedures (before, during and after fueling), spill prevention and response procedure and spill reporting phone numbers to:

- The marina office and to **BOTH**
- The US Coast Guard National Response Center (1-800-424-8802) and the State Warning Center (1-800-852-7550 or 1-800 OILS911).



✓ Post signs with a 24-hour phone number where someone designated by the owner or operator of the facility can be reached to start the spill response. The contact phone number must be posted on the dock or transfer location so that it is easy to read.

✓ Post “No Smoking” signs on fuel docks.

✓ Post signs explaining that it is illegal to use any oil or fuel spill cleanup agents (such as detergents, dispersants, bioremediates, particulate sorbents).

Spill Response Materials

✓ Locate a spill response locker with response equipment near attached or adjacent to the fuel dock, easily accessible and clearly marked.

- It is recommended to have enough containment boom on hand to enclose twice the largest vessel expected at your facility. It is recommended to develop a list of local responding companies. You may also want to communicate with your neighboring marinas to find out what emergency equipment they have.

- Remember to also have available adequate personal protective equipment.

- Appropriate response training is recommended such as First Responder Awareness and First Responder Operations.

- There are several commercial spill kits available in different sizes. Consult your fuel distributor for recommendations.

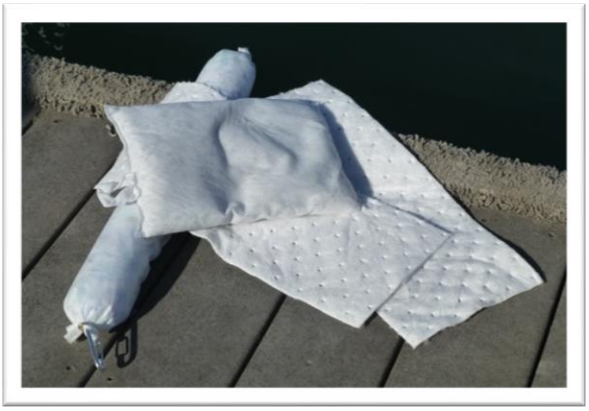


Photo by Vivian Matuk

Handling Spills (Check Appendix 3 for Checklist for Fuel/Oil Spills)

When a spill occurs, consider the following:

On the Water Incident

1. Assess magnitude of spill.
2. Identify the material that has been spilled.

    a. If gasoline
        i. Evacuate area **immediately**. ***Gasoline spills are extremely dangerous.***
        ii. Clear area of people. Do not allow smoking of any kind.
        iii. Shut off power and close the fuel supply valve, if possible.
        iv. Contact the Fire Department: 911 and follow the notification procedure found on **Page 11 and Appendix 1** "SPILL NOTIFICATION AND EMERGENCY CONTACT NUMBERS Resource Phone Tree."
        v. Look for source - Stop source if able to do so safely.
        vi. Do not contain gasoline spills because they pose an extreme explosion and fire threat.

b. If not gasoline – Continue with steps 3-8 below

3. Identify the source.
4. Stop source if able. *Do not use any soap or dispersing agents. It is illegal!*
5. Contain spill if possible, place containment boom or absorbent materials. Remember to use adequate personal protective equipment (*appropriate response training is recommended* such as First Responder Awareness and First Responder Operations).
6. When the incident is secured complete an Incident Report. To properly report the spill, please check the handout found in this packet entitled "***SPILL NOTIFICATION AND EMERGENCY CONTACT NUMBERS Resource Phone Tree***"
7. Record information about the boat owner/operator (boat registration number).
8. Used absorbents are presumed to be hazardous waste. Remove and dispose of the used spill response material as hazardous waste.

**** Remember: Any** spill must be reported to **BOTH** the National Response Center and the State Warning Center, if it:

- produces a film or a sheen upon, or discoloration of, the surface of the water or adjoining shorelines,
- or would cause a sludge or emission to be deposited beneath the surface of the water or upon the adjoining shoreline).

Education

✓ Promote/recommend the installation and use of fuel spill prevention devices by boaters. Such devices include:

- Fuel/air separator installed in the air vent on a built-in fuel tank.
- Fuel gauges with audible alarm to let the boater know the tank is nearly full.
- Absorbent collars or "doughnuts", or fuel bibs encircling fuel nozzle to catch "splash back" spills (saturated absorbents must be disposed of as hazardous waste).
- Spill containers attached to the outside of the air vent to catch spills caused by back-pressure build-up.
- For outboard tanks, spill-proof nozzles on portable fuel cans.

Photo by BoatUS Foundation

It is recommended devices be available at your fuel dock for boaters to use and/or marina's boat supply shop.

- ✓ Educate boaters about proper fueling practices. For detailed information visit the Boating Clean and Green Program website here and post the fueling clean boating video in your facilities website. You may want to include this information in your facility environmental policies or lease agreements.

For more best management practices for boaters check the following ***fueling video***

References

California, Coastal Commission. May, 2004. *The California Clean Marina Toolkit: A Resource for Environmentally Sound Marina Management and Operation.* Retrieved June, 2019 from https://dbw.parks.ca.gov/pages/28702/files/marina-toolkit.pdf

California Department of Fish & Wildlife Office of Spill Prevention and Response, California State Parks Division of Boating and Waterways and California Coastal Commission and The California Governor's Office of Emergency Services. 2014. *Marinas and Yacht Clubs Spill Response Communication Packet.* Retrieved June, 2019 from https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=55469&inline=true

California State Parks and California Coastal Commission's Boating Clean and Green Program's website www.BoatingCleanandGreen.com

Environmental Protection Agency. November, 2001. *National Management Measures Guidance to Control Nonpoint Source Pollution from Marinas and Recreational Boating. Section 4*. Retrieved June 2019 from https://www.epa.gov/sites/production/files/2015-10/documents/2001_10_30_nps_mmsp_section4.pdf

Environmental Protection Agency. June, 2010.*Spill Prevention, Control, and Countermeasure (SPCC) Regulation 40 CFR part 112 – A Facility Owner/Operator's Guide to Oil Pollution Prevention*. Retrieved June, 2019 from https://www.epa.gov/sites/production/files/documents/spccbluebroch.pdf

State Water Resources Control Board Underground Storage Tank Program. August, 2006. *Marine Fueling Facility Project Repor*t. Retrieved June, 2019, from http://www.swrcb.ca.gov/ust/leak_prevention/marina/docs/mff_projectreport.pdf

San Francisco Department of Public Health. January, 2011. *Pollution Prevention Toolkit for Maritime Industries*. Retrieved June, 2019 from https://www.sfdph.org/dph/files/EHSdocs/Green/MarineFinalReport.pdf

Appendix 1 - SPILL NOTIFICATION AND EMERGENCY CONTACT NUMBERS

Resource Phone Tree

Form Updated on _____ *(Marina Fueling Facility Operator: Please include the date when this form was updated)*

Complete the entire form found in this packet (Section: Information Needed To Report A Spill Incident To The National Response Center - NRC) before you call NRC. **Make sure you record the case file number**

Required Notification

1. Call **ALL** the following agencies first as follows **(Required).** ***Note**: If you are the responsible party (spiller), you need to make this notification **within 30 minutes**.*

    a. National Response Center **1-800-424-8802 or 202-267-2675**
    b. State Warning Center **1-800-852-7550 or 916-845-8911**

State law requires the spiller (or responsible party) to notify these agencies in the event of a spill. Failure to report can result in potential fines. Reporting a spill does not always result in the assessment of fines. Immediate notification is required so that cleanup efforts can begin promptly. Anyone is encouraged to report a spill that presents a threat to public health or the environment.

2. **Recommended Notification**
    a. Local United States Coast Guard unit and/or harbor marine patrol as appropriate
    b. 9-1-1 or the Local Emergency Response Agency (such as Fire Department) and local Certified Unified Program Agency (CUPA)

3. If Boating Facility Operator isn't on-site, contact him/her or the marina/yacht club person in charge and other important staff
    - Name: _____
    - Title: _____
    - Office Phone Number: _____
    - Mobile Phone Number: _____
    - Home Phone Number: _____

4. Boating Facility notifies appropriate parties (such as City Mayor, City and/or County Officials, among others)

5. Report oiled wildlife to the Oiled Wildlife Care Network (**877) 823-6926**

Additional Resources to be Considered. *This section needs to be completed in coordination with the boating facility operator.*

- Oil Spill Cleanup Contractor. (such as: Check Oil Spill Response Organizations (OSRO)
  Contractor: _____

- Salvage Companies (include a **minimum of 3**)
  1. Name: _____
     Phone Number: _____
  2. Name: _____
     Phone Number: _____
  3. Name: _____
     Phone Number: _____

- Divers, if needed (include a **minimum of 3**)
  1. Name: _____
     Phone Number: _____
  2. Name: _____
     Phone Number: _____
  3. Name: _____
     Phone Number: _____

- Vessel assists: (800) 367-8222

- Nearby boatyards or boat repair facilities (include a **minimum of 3**)
  1. Name: _____
     Phone Number: _____
  2. Name: _____
     Phone Number: _____
  3. Name: _____
     Phone Number: _____

Appendix 2- Checklist for Fuel/Oil Spills

The goal of this checklist is to collect as much information as possible in case of a fuel/oil spill so that the responding agencies and or clean up responders have a clear understanding what they are responding to and what equipment they might need.

Where is the spill location?

☐ From a vessel anchored or under way (provide location, description, name number of boat)
Location: _____
Vessel description: _____
Vessel registration/documentation number: _____
Vessel Name:_____
Vessel owner, if known: _____

If the spill comes from a vessel, what type of vessel?
- ☐ Sport or commercial vessel
- ☐ Recreational vessel
- ☐ Other: _____

What is the estimated size of subject vessel?
- Length: _____ft.
- Width (Beam):_____ft.

Make and model of vessel if known :_____.
Makes it possible to understand and estimate how much fuel the vessel holds if the vessel sinks.

Type of construction and age if known: _____
Construction material (Wood, fiberglass, metal, concrete) : _____

☐ At a fuel dock, (Provide name, location)
Fuel dock name: _____
Location:_____

☐ At a berth (facility name (marina, yacht club or harbor), berth number, location)
Facility name: _____
Berth number: _____
Location: _____

☐ Other: _____

☐ If it is a sheen drifting, source unknown

Describe the Spill

Product if known:

- ☐ Gasoline
- ☐ Diesel
- ☐ Oil
- ☐ Hydraulic fluid
- ☐ Bilge water
- ☐ Other: _____

Approx. dimension (estimated length and width) _____
Estimated volume, if known: _____
Appearance: _____
Odor: _____
Spill trajectory/direction of travel, if moving: _____

Appendix 3 - INFORMATION NEEDED TO REPORT A SPILL INCIDENT TO THE NATIONAL RESPONSE CENTER - NRC

Before calling the National Response Center (NRC) (**1-800-424-8802 or 202-267-2675)** to report a spill, collect as much information about the incident as possible including:

Reporting Party

Reporting Party Name and Last Name: _____

Reporting Party Phone Number: _____

This phone number belongs to a ____Cell Phone ___ Pager ___ Work Phone number ___ Home Phone number

Reporting Party Organization's Name: _____

Reporting Party Organization's Type (such as: Federal Government, Fire Department, Foreign Agency, Local Government, Military, N/A, Police Department, Private Citizen, Private enterprise, Public Utility, Sea Partners Program, State Government, Tribe, Unknown)
_____

Reporting Party Organization's Address: _____

Suspected Responsible Party

Suspected Responsible Party Name and Last Name:_____

Suspected Responsible Party Phone Number: _____

This phone number belongs to a ____Cell Phone ___ Pager ___ Work Phone number ___ Home Phone number

Suspected Responsible Party Organization's Name: _____

Suspected Responsible Party Organization's Type (such: Federal Government, Fire Department, Foreign Agency, Local Government, Military, N/A, Police Department, Private Citizen, Private Enterprise, Public Utility, Sea Partners Program, State Government, Tribe, Unknown)
_____

Suspected Responsible Party Address: _____
_____

Vessel Registration number: _____
Vessel Name: _____
Vessel Slip # (if applicable): _____

Date and time of the incident: _____

Location of the incident (Address and if at a slip, slip #):
_____

Source and cause of the discharge: _____

Types of material(s) discharged (such as Diesel, Gasoline, Oil, Other): _____

Estimated quantity of materials discharged: _____

Danger or threat posed by the discharge: _____

Number and types of injuries (if any): _____

Weather conditions at the incident location:_____

Other information to help emergency personnel respond to the incident:
_____
_____
_____

National Response Center Report Case Number: _____ **Time and Date:** _____

State Warning Center Report Case Number: _____ **Time and Date:** _____

Give a short narrative of the event and the result of your actions:
_____
_____

On-Line Reporting Tool

The National Response Center (NRC) has deployed an On-Line Reporting Tool. This tool provides users of the internet the ability to easily submit incident reports to the NRC. In addition, the tool will transmit an email containing the report number back to the Reporting Party. The on-line HELP feature will assist users in all facets of the tool. We invite you to utilize the NRC On-Line Reporting Tool by clicking here.

Reports taken by the NRC are based on the "Incident Type." Each Incident Type requires a different subset of information. The NRC On-Line Reporting Application "HELP" feature describes these areas in detail. All incident types are available for submission via the application.

The NRC will contact the Reporting Party within 30 minutes of receiving an online report to provide an official NRC Report Number. If you have not received an email confirmation from the NRC within 45 minutes of submitting a report, please contact us by phone using our toll free number (800-424-8802).