

FUELING AND FUEL STORAGE

BENCHMARK

Implement spill prevention measures whenever fuel is handled or stored. Report, minimize, contain and clean up spills that do occur.

FUELING BMPS



Spills of diesel, oil, or gasoline into the water or onto the ground are prohibited, and best management practices should be implemented to prevent them. Spills into the bilge are difficult to completely clean and often wind up in the water. Where practicable, fueling should be done on shore over an impervious surface where any spills can be easily collected and cleaned up.

According to the NFPA, when fueling everyone should follow these rules:

1. Extinguish all flames, including cigarettes
2. Stop all engines
3. Shutting off electricity is recommended
4. Check bilge for fuel vapors, ventilate if necessary
5. Maintain nozzle contact with fill pipe
6. Avoid overfilling
7. When fueling with gasoline it is a good idea to only have the person doing the fueling on board.

Boatyard Bob Says . . .

“Train staff and customers on proper fueling and spill containment procedures.”

“Carefully monitor all fueling activities.”

“A plastic crate with absorbent material is helpful to store nozzles on the dock when not in use.”

“Inspect customers fuel tank vents for traps, if missing recommend installation.”



Helpful signage
Photo credit: Bunnell Marine Consulting



In the Water Fueling

Most spills occur due to overfilling (topping off) and operator inattention. Customers doing their own fueling should:

- Pay close attention when fueling
- Not top off the tank.
- Use oil absorbent pads or “doughnut” around the fuel nozzle to prevent fuel from “burping” out of the fill pipe and catch and contain any spills before they get to the deck, water, or bilge.
- If no vent trap is installed in the boat, use a commercially available device on the outside of the hull over the vent to catch any fuel that might come out.
- Oil or gas absorbent pads or “bilge pillows” should be used in the bilge to absorb any spills.



Dockside spill kit and nozzle storage
Photo credit: Bunnell Marine Consulting

The marina or fuel dock must remove the clips holding the nozzle valve open, requiring someone to hold the nozzle while filling. Fuel tank vent traps should be installed whenever possible to prevent fuel from discharging through the vent line and the fuel fill should be clearly labeled and easy to identify. For more information on fueling safety requirements, refer to “The Fire Protection Standard for Marinas and Boatyards” NFPA 303.

Managing Spills

Both state and federal law require a spill prevention, contingency and countermeasures plan (SPCC plan) for any facility storing more than 1,320 gallons of petroleum products and are required for facilities regulated under a stormwater multi-sector general permit where gas, oil, or hazardous materials are used or stored. You must include all fuel containers over 55 gallons, including heating oil tank(s), when determining whether you are over the threshold.



The SPCC plan must include:

- Potential spill sources including oil and hazardous materials used or stored in the area.
- Prevention measures (e.g. security, inspection, containment, training, equipment),



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Fill Don't Spill program
signs still available



- Spill emergency procedures, including health and safety, notification, and spill containment and control measures and the location of spill control materials.
- A drainage plan, and
- Emergency telephone numbers

Please refer to Sections 3 and 5 that detail all the components of a general SPCC plan. A template SPCC plan can also be found on the Brightwork CD. Section 5 provides further information on this use of the template.

If a spill occurs or any oil or hazardous material is accidentally discharged into the water of the state or onto land with any potential for entry into state surface or ground waters, the Maine DEP Bureau of Remediation and Waste Management should be notified immediately by calling (207) 287-2651 or 1-800-432-0777.

Inform your local harbormaster and fire department about your SPCC plan and equipment. Because the fire department and the harbormaster may be included in any first response action, it may be appropriate for them to have a copy of the SPCC plan. In some cases, the marina operator has granted permission to the city or town to use the response equipment, if necessary. Marina operators may also consider inviting the harbormaster or fire department to participate in drills as they are held at the facility.

Spill Response

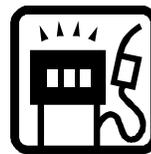
In the event of an actual spill, cleanup efforts should begin immediately and be completed as soon as possible, taking precedence over normal work. The cleanup should include properly disposing of any spilled material and used cleanup material. The following steps should be performed as quickly as possible:



1. Stop the source of the spill.
2. Contain the liquid using containment booms if the spill might reach the water.
3. Cover the spill with absorbent material like oil absorbent pads (if on the water) or kitty litter, or sawdust on land. Do not use straw.
4. Comply with state and federal regulations to contain and clean up the spill, and dispose of materials at an approved facility.
5. Contact the Maine DEP and/or the local fire department.



MMTA & MEDEP Fill Don't Spill program spill kit stickers and nozzle tags still available



Spill clean-up materials on dock
Photo Credit: Bunnell Marine Consulting

Make spill response equipment readily available.

In order for it to be used, spill response equipment must be easy to find and easily accessed by staff. Some marinas choose to make the spill equipment accessible for all patrons to use at their discretion, potentially encouraging quick response to smaller spills. If spills can occur in different locations throughout the facility, multiple response kits should be available.

The type of spill response equipment needed depends on the type of boating facility and the type of vessels that frequent the marina or boatyard. At a minimum, the

response kit should include:

- Absorbent pads and booms,
- A fire extinguisher,
- A brief set of instructions.

Clean-up materials include the following:

- Oil-absorbing floating booms prevent oil from spreading and absorb the oil
- Absorbent pads absorb and trap spilled materials for easy disposal.

Oil-only absorbent pads often float and will not absorb water and are used for quickly cleaning up small fuel spills by throwing them into the oil slick and retrieving them once saturated.

Other absorbent pads are designed for acids or other water-based chemical, and will absorb water and sink.

Some marinas have adopted the practice of securing oil absorbent material at the waterline of floating fuel docks to quickly capture small spills.

Traditional dispersants (liquid soaps) should not be used. These chemicals move the contaminants from the surface of the water to the bottom trapping them in bottom sediments, potentially causing long-term damage.

Please refer to section 4 for more spill cleanup material guidelines.

CLEAN-UP

Used absorbent material rags or other debris may be flammable and can spontaneously ignite. Rags should be stored in an approved ignition suppressive container in a cool dark place until such time as disposal is appropriate. Oil



contaminated materials may be disposed of as a solid waste if the oil cannot be squeezed out of the material and if contained in plastic bags. Gasoline contaminated clean-up materials are considered hazardous waste and must be handled accordingly.

FUEL STORAGE BMPS



For more information, please refer to NFPA 30, 30A and 303. Any above ground fuel storage areas must:

- Have secondary containment equal to 110% of the total volume stored.
- Have covered, undrained, secondary containment
- Protect piping and fittings from damage from vehicles and other physical damage.
- Meet current standards if any piping or fittings runs underground.



Double walled tank with protection
Photo Credit: Bunnell Marine Consulting

- Be inspected weekly for leaks. Joints and connection points outside of any secondary containment should be checked very carefully.

If you meter your fuel, as regulated by the Department of Agriculture, measure fuel volume daily and perform a reconciliation of fuel sold and fuel bought to ensure that they balance. If you store more than 1,550 gallons of gasoline, diesel fuel or fuel oil you are required to submit annual reports under the Emergency Planning and Community Right to know Act (EPCRA).



Secondary containment and protection
Photo Credit: MEDEP

Fill pipes should be readily accessible to the tanker operator, but should be protected. Providing absorbent pads and secondary containment around the fill pipes will minimize spills during fuel delivery.

CUSTOMER RELATIONS

Boatyards and marinas are ultimately responsible for all activities that take place at the yard or marina, including fueling, by the boat owners. Therefore, it is in your interest to clearly communicate the proper management

practices to boat owners through clear signage.



LEGAL REQUIREMENTS

The following summaries of Federal and State laws and regulations are for general reference only and do not represent the laws fully. For a complete review of the pertinent laws and regulations use the references below to find either the complete text of the law or regulation or a detailed and complete summary in Section 2.

GENERALLY

Discharge of Pollutants to Water - 38 M.R.S.A § Section 413

Section 413 prohibits discharging (spilling, leaking, dumping) of pollutants into state waters without a license from the Department of Environmental Protection. See page 3-33 or the Brightwork CD for more detailed regulatory information.

For additional information: Bureau of Land and Water Quality, Maine Department of Environmental Protection, 17 State House Station, Augusta, ME 04333, phone # (207) 287-2111.

Pollution and corruption of waters and lands of the State prohibited – 38 M.R.S.A §543

Section 543 prohibits the discharge of oil into or near the waters for the state. If a spill happens that causes a sheen on the waterbody, you have violated this section of the law. Call the Oil Spill report line at 800-482-0777.

For additional information: See page 3-52 or the Brightwork CD for more detailed regulatory information. Contact information below.

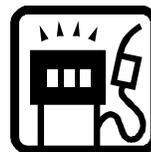
Removal of prohibited discharges - 38 M.R.S.A §548.

Section 548 requires the clean up of any spill that is covered under section 543. If the responsible party does not clean up the spill, this section allows the state to clean it up and charge the responsible party for all costs incurred as part of the cleanup.

For additional information: See page 3-52 or the Brightwork CD for more detailed regulatory information. Contact information below.

Enforcement; penalties - 38 M.R.S.A §550.

Section 550 provides protection from fines if the spill is reported, and subsequently cleaned up and paid for by the responsible party. Under the federal oil spill law, there is no such protection.



For additional information: See page 3-52 or the Brightwork CD for more detailed regulatory information. Bureau of Remediation and Waste Management, Maine Department of Environmental Protection, 17 State House Station, Augusta, ME 04333, phone # (207) 287-2651

Oil Pollution Prevention 40 CFR Part 112.1 (A)(4)(f)(2)(ii)

This section of the federal law addresses the requirements for SPCC plans and other oil pollution prevention provisions.

Spill Prevention and Control - 38 MRSA §570-K, sub-§5

Section 570 addresses the requirements for SPCC plans and other oil pollution prevention provisions at oil storage facilities used in the marketing and distribution of oil to others, including marinas that sell fuel.

For additional information: See page 3-52 or the Brightwork CD for more detailed regulatory information. Bureau of Remediation and Waste Management, Maine Department of Environmental Protection, 17 State House Station, Augusta, ME 04333, phone # (207) 287-2651

Rules and Regulations for Flammable and Combustible Liquids 16-219 CMR Chapter 31

These rules are enforced by the state Fire Marshal's Office and regulate the storage of fuels in above ground storage tanks.

Regulation of underground oil storage facilities used to store motor fuels or used in the marketing and distribution of oil - 38 M.R.S.A §564.

This section addresses the underground fuel storage tank requirements.

For additional information: See page 3-52 or the Brightwork CD for more detailed regulatory information. Bureau of Remediation and Waste Management, Maine Department of Environmental Protection, 17 State House Station, Augusta, ME 04333, phone # (207) 287-2651

National Fire Protection Association (NFPA) Sections 30, 30A and 303

NFPA publishes the fire protection standards for many industries, Sections 30 and 30A relate to storage and distribution, 303 is specifically targeted at marinas and boatyards.

For additional information: See page 3-52 or the Brightwork CD for more detailed regulatory information.



REPORTING REQUIREMENTS

Emergency Planning and Community Right to know Act (EPCRA) –
Superfund Amendments and Reauthorization Act of 1986, Title III and 37-B
M.R.S.A Chapter 13 §791-806

The Emergency Planning and Community Right to know Act (EPCRA) of 1986 established requirements for federal, state, local governments and industry regarding emergency planning and notification reporting on hazardous and toxic chemicals. The requirements include provisions to increase the public's access to information on chemicals at facilities, their uses and any releases to the environment. The reporting requirements are also very important for the safety of local emergency response personnel (fire, police and rescue).

The EPCRA and state laws require that a facility submit to the local and state emergency planning organizations: 1) copies of all or a list of material safety data sheets (MSDS) for chemicals or any “extremely hazardous substance” used at the facility that are present on the property over the reportable quantity 2) chemical inventory reporting forms for those chemicals noted above and 3) facility emergency response plans for any extremely hazardous substance present over the threshold planning quantity. Some chemicals may trigger only one-time reporting, while others may trigger annual reporting. The laws require fees to be submitted on an annual basis depending on reporting requirements and quantities.

For marinas and boatyards, the most common extremely hazardous substances or hazardous substances that would exceed reportable quantities are: sulfuric acid (about 5 lbs. in each series 24 battery), and gasoline, diesel or fuel oil. If you have more than 200 regular car size batteries at your facility, you probably trigger the planning threshold for sulfuric acid and are required to submit a facility emergency response plan to your emergency planning organizations. However, if you have lots of consumer-sized batteries that are in use (in the boats) you may subtract the sulfuric acid volume from your total for determining whether you must submit an annual report on sulfuric acid. If you have more than 1557 gallons of gasoline, or diesel or fuel oil (not cumulative) stored on site (including gas tanks in boats) then you must submit an annual report and registration fee and perhaps an inventory fee).

For additional information: See page 3-52 or the Brightwork CD for more detailed regulatory information or, Maine Emergency Management Agency, attn: SERC 72 State House Station, Augusta, ME 04333-0072, phone # (207) 626-4503 or 1-800-452-8735