

Environmental Concerns

Petroleum in or on the water is harmful and, in some cases, fatal to aquatic life. Gasoline contains benzene which can cause cancer. Oil contains zinc, sulfur, and phosphorous. Petroleum products introduced into the environment are a chronic problem. Cumulative small incremental discharges of petroleum products have significant environmental consequences. A gallon of fuel can contaminate over a million gallons of water. Once petroleum is introduced into the water, it may float at the surface, evaporate into the air, become suspended in the water column, or settle to the water's bottom. Floating petroleum is particularly noxious because it reduces light penetration and the exchange of oxygen at the water's surface. Floating oil also contaminates the microlayer the uppermost portion of the water column, home to thousands of species of plants, animals, and microbes. Blue crab larvae almost exclusively feed in the microlayer, which also serves as a nursery for striped bass. The abundance of life in the microlayer attracts predators including seabirds and fish. Consequently, a polluted microlayer may poison much of the aquatic food web.

Box 2: Oil Absorbent Material

Oil and fuel absorbent pads, booms, and pillows absorb petroleum products and repel water. Depending upon the type, they may hold up to 25 times their weight in oil. These types of products are useful for capturing spurts at the fuel dock, cleansing bilge water, and wiping up spills in engine maintenance areas.

There are a number of new twists on basic oil absorbent materials. One new variety of oil absorbent boom captures oil from the bilge and solidifies into a hard rubber bumper. Other types contain microbes that digest the petroleum. The oil is converted to carbon dioxide and water. Because the microbes take 2 to 3 weeks to digest a given input of oil, it is inappropriate to use these types of products for a spill of any significant size. Rather, they are intended to control the minor drips associated with routine operations. Care must still be taken to ensure that free-floating oil is not discharged overboard.

Yet another type of oil absorbent product is a boom constructed out of oil absorbent polypropylene fabric and filled with dehydrated microbes. These booms hold the petroleum in the fabric until microbes digest it. Harm associated with free-floating petroleum is thereby minimized.

Pump Contaminated Bilge Water.

- ___ ✓ (5) Draw contaminated water from bilges into a holding tank and have the holding tank pumped out by an authorized waste hauler.

(5) Total Points for BMP

Total N/A Points

Offer Spill-Proof Oil Changes.



Drain the filter by punching a hole in the dome end. Recycle the collected oil. Recycle the metal canister if practical. If not, double bag and discard in your regular trash.

___ ✓ (1)

Purchase a non-spill pump system to draw crankcase oils out through the dipstick tube. Use the system in the boat shop and rent it to boaters who perform their own oil changes.

___ ✓ (1)

Slip a plastic bag over the used oil filter prior to removal to capture any drips.

___ ✓ (1)

Encourage the use of spill-proof oil change equipment as a condition of your slip rental agreement.

(3) Total Points for BMP

Total N/A Points

Minimize & Contain Spills and Leaks from Machinery.

___ ✓ (1)

Use non-water-soluble grease on Travelifts, fork lifts, cranes, and winches.

___ ✓ (5)

Place containment berms with containment volumes equal to 1.1 times the capacity of the fuel tank around fixed pieces of machinery that use oil and gas. Place the machinery on an impervious pad. Design containment areas with spigots to drain collected materials. Dispose of all collected material appropriately. Refer to the Waste Containment and Disposal section of this guidebook. If possible, cover the machinery with a roof to prevent rainwater from filling the containment area.

___ ✓ (1)

Place leak-proof drip pans beneath machinery. Empty the pans regularly, being conscientious to dispose of the material properly (uncontaminated oil and anti freeze may be recycled).

___ ✓ (1)

Place oil-absorbent pads under machinery.

___ ✓ (5)

Maintain a supply of oil and fuel absorbent pads and pillows on site to mop up any spills.

- (1) Place small gas cans in fuel absorbent-lined drip pans when filling.
- (5) Offer your service to install fuel/air separators on boats to eliminate vent line overflow during refueling.

(19) Total Points for BMP

Total N/A Points

Community Right to Know.



A marina must report storage of gasoline, diesel fuel, propane or fuel oil (all of which require Material Data Safety Sheets) in excess of 10,000 lbs to the appropriate authorities. This does not include the fuel in boats dockside. Gasoline weighs about 6.19 lbs. per gallon, diesel weighs about 7.05 lbs. per gallon, and propane weighs about 4.23 lbs. per gallon at 60 degrees Fahrenheit (see Laws and Regulations).

Develop Emergency Response Plans.

- (5) Develop plans for likely emergencies including:
 - fuel spill
 - holding or water tank filled with gas
 - spill at the storage area: used oil, antifreeze, solvents, etc.
 - fire
 - health emergency
 - hurricane, etc.

- (5) Develop written procedures describing actions to be taken under given circumstances. The plans should be clear, concise, and easy to use during an emergency, e.g., use a large type size. Each emergency response plan should contain the following information:

Where:

- In the very front of the plan, insert a laminated 11 by 17-inch site plan of the facility showing valves, pipes, tanks, structures, roads, hydrants, docks, power and fuel shutoffs, hazardous material storage locations, and telephones.
- Describe where response material is located.
- Identify who is responsible for taking what action, e.g., deploying equipment, contacting emergency agencies, etc.
- Designate one person on the marina staff as the official spokesperson for the facility.
- Include a list of emergency phone numbers: National Response Center (800) 424-8802, NJDEP's Emergency Hotline 1-877 WARN DEP, county health department, local fire and police departments, owner, and neighboring marinas that have emergency response equipment.
- Include a brief description of each agency's jurisdiction and information about what type of equipment and services are available from neighboring marinas and spill response firms.

What:

- State the actions to take during emergencies that could reasonably occur and identify what equipment should be deployed. Include information about the types of equipment on site and their characteristics and capabilities.
- Characterize the marina’s waterfront and vessels.
- Describe the type, amount, and location of materials stored on site, e.g., petroleum and hazardous materials.

How:

- Explain how the equipment is used and discarded.

When:

- Indicate when to call for assistance.
- ___ ✓ (1) Update the plans annually to include any new technology or equipment and to confirm phone numbers.

(11) Total Points for BMP

Total N/A Points

Make Plans Accessible.

___ ✓ (1) Keep copies of all Emergency Response Plans in a readily accessible location.

___ ✓ (1) Place a second copy of the Oil Spill Response Plan (SPCC) in the oil spill response kit.

(2) Total Points for BMP

Total N/A Points

Train Employees.

___ ✓ (5) Review plans and response procedures with staff at the beginning of each boating season and provide interim training for newly hired untrained staff.

___ ✓ (5) Train employees in the use of containment measures.

___ ✓ (5) Run emergency response drills at least twice annually.

___ ✓ (1) Invite the local fire department to demonstrate emergency response procedures at your boatyard.

(16) Total Points for BMP

Total N/A Points

Share Your Emergency Response Plans.

- (1) Inform your local fire department and harbormaster about your emergency response plans and equipment.
- (1) Inform neighboring businesses about the resources that are available at your facility.

(2) **Total Points for BMP** **Total N/A Points**

Maintain Oil Spill Response Equipment.

- (5) Maintain sufficient oil spill response equipment to contain the largest potential spill at your facility.

(5) **Total Points for BMP** **Total N/A Points**

Store Oil Spill Response Equipment Smartly.

- (1) Store the equipment where there is the greatest risk of an oil spill, such as fuel receiving and fuel dispensing areas.
- (1) Store materials in an enclosed container or bin that is readily accessible to all staff- especially those who handle the fueling operations.
- (1) Mark the storage site with a sign reading “Oil Spill Response Kit.” Include instructions for deploying pads and booms and notification that all spills must be reported to the National Response Center at (800) 424-8802, NJDEP at 1-877 WARN DEP, and county health department.
- (1) Check the bin inventory regularly.

(4) **Total Points for BMP** **Total N/A Points**


Be Prepared for a Fire.

- (1) Be sure hydrants are available for fighting fires at your facility.
- (1) Install smoke detectors.
- (5) Provide and maintain adequate, readily accessible, and clearly marked fire extinguishers throughout the boatyard.
- (1) Inspect and test all fire fighting equipment and systems regularly. Test fire extinguishers annually.
- (1) Train personnel on fire safety and response: who to call, location of hydrants, use of portable extinguisher, etc.

(9) Total Points for BMP

Total N/A Points

Maintain Material Safety Data Sheets.

-  Keep a file of Material Safety Data Sheets (MSDS) for all products used at your facility, as required by the Occupational Safety and Health Act of 1970 (29 USC Sec. 657). Store the file in an office away from material storage areas. Keep in mind that during an emergency the file will not reflect either the quantities of materials on site or even whether all the listed materials are present.
- (1) Inform the local Emergency Planning Committee what materials you store and what is released when they burn.

(1) Total Points for BMP

Total N/A Points

Chapter Total:

_____ (94)

Chapter Total N/A Points:
