

CLEAN BOATER TIP SHEET

FUEL & OIL CONTROL

Petroleum in or on the water is harmful and, in some cases, fatal to aquatic life such as fish, birds, and invertebrates. Oil can enter water intakes and affect drinking water, and a gasoline spill poses a significant fire and explosion hazard. Gasoline and oil may also contain cancer-causing chemicals, including benzene and PCBs. In addition, spilled oil is unsightly and can stain the shoreline. Floating petroleum is particularly bad because it blocks sunlight from reaching underwater plants and blocks the exchange of oxygen at the water's surface, which is harmful to fish and aquatic plants.

The Law

The Federal Water Pollution Control Act prohibits the discharge of oil of any kind into or upon the navigable waters of the United States, including the Great Lakes. This includes any discharge that causes a film, sheen, discoloration, sludge, or emulsion on or beneath the surface of the water.

In Case of a Spill

- ☞ If you see a leak of hazardous waste (e.g., fuel or oil) or if you experience a spill, stop the spill at the source and contact the marina staff immediately.
- ☞ Contain the spill.
- ☞ Immediately notify the marina and the Coast Guard if you cause a spill – it's the law. Call the National Response Center at (800) 424-8802.
- ☞ Do not use emulsifiers or dispersants (soap) to treat or disperse a spill; this is prohibited by federal law and may result in a significant fine.
- ☞ If you do have a spill while fueling or see a leak of hazardous waste, clean it up with an oil absorbent material such as a pad, boom, or pillow. Dispose of the used absorbent material appropriately.

Fueling Practices

Gas or diesel may be spilled during the act of fueling as backsplash out of the fuel intake or as overflow from the vent fitting. Spills of this sort harm aquatic life, waste money, and can result in stains on the hull and damage to the gel coat and striping. Follow these tips to avoid problems:

- ☞ Have a trained attendant supervise or fuel your vessel for you.
- ☞ Never leave the fuel hose unattended when fueling.
- ☞ Fill tanks to no more than 90 percent capacity—fuel that is drawn from cool storage tanks will expand as its temperature rises. Don't top off your tank. It will cause a gasoline spill.
- ☞ To prevent spills from the tank vent, install a fuel/air separator or an air whistle in your tank line. Ask the marina staff if they know who can provide this service.
- ☞ To determine when the tank is 90 percent full, listen to the filler pipe, use a sounding stick, and be aware of your tank's volume. Use your hand to feel for air escaping from the vent. You will feel and hear an increase in air flow as the tank approaches full.
- ☞ Rather than filling your tank upon your return to port, wait and fill it just before leaving on your next trip. This practice will reduce spills due to thermal expansion because the fuel will be used before it has a chance to warm up.
- ☞ To fill portable tanks, remove them from your boat and fill them at the pump in a collection pan, where spills are less likely to occur and easier to clean up.
- ☞ Use a spill collection bottle over the fuel vent to catch fuel backsplash, if the marina has one available. Place an absorbent pad or container over the fuel fill or under the fuel vent to collect accidental overflow.
- ☞ Slow down at the beginning and end of fueling.

Bilge Maintenance

Engine oil tends to accumulate in bilges. If no precautions are taken, the oil is pumped overboard along with the bilge water. Discharging oily water is illegal. To avoid fines and to protect water quality, follow these tips:

- 🔧 Keep your engine well turned to minimize the amount of oil that is released. Be sure there are no leaking seals, gaskets, or hoses.
- 🔧 Keep an oil absorption pad or bilge sock in the bilge or below the engine to absorb spilled oil.
- 🔧 Replace used oil absorbent materials regularly.
- 🔧 Look for contractors or marinas that offer a bilge pump-out service.
- 🔧 Do not treat oily water with detergents. Soaps pollute and make spill clean-up impossible. You may be fined for using soaps to dissipate oil.

Disposal of Oil-Absorbent Materials

The disposal of used oil-absorbent material depends on what type of product it is and how it was used:

- 🔧 Engine oil filters and oil absorbent materials will be banned from Wisconsin landfills starting January 1, 2011.
- 🔧 Standard absorbents saturated with oil or diesel may be wrung out over oil recycling bins and reused (if they are saturated with oil or diesel only, not gasoline!).
- 🔧 Always check with the marina operator before disposing of any used material. Call your municipal solid waste department or WNRD regional office for oil recycling locations in your area.

Recycle Regularly

- 🔧 Bring used solvents and waste gasoline to local hazardous waste collection days or check with your marina for collection.
- 🔧 Never dump waste oils and engine coolants on the ground or into storm drains, dumpsters, or open waters.
- 🔧 When disposing of petroleum-based products, such as fuels and engine oils, keep them separate from each other and from other substances, such as antifreezes, solvents, and water. This lowers the disposal cost charged to your marina or collection facility by preventing the creation of mixed “hazardous wastes.”

Emissions Control

Marine engines – especially two-stroke outboard motors – produce the highest average level of hydrocarbon exhaust emission after lawn and garden equipment. Hydrocarbon emissions contribute to ground-level ozone, a known health risk, and greenhouse gases that contribute to climate change. Follow these tips to help your engine operate as efficiently as possible:

- 🔧 Use the gas-to-oil ratio recommended by the engine manufacturer. Too much oil can foul spark plugs and too little can lead to increased engine wear or even failure. Use premium two-cycle engine oil (TC-W3 or TC-W4). Premium oils improve engine performance and reduce pollution because they burn cleaner, contain more detergents, and prevent formation of carbon deposits.
- 🔧 Use gasoline with the octane level recommended by the engine manufacturer.

Preventive Equipment

Commercial products are available that can help you prevent spills and reduce emissions. Actions you can take include:

- 🔧 Install a fuel/air separator along your vent line. These devices allow air, but not fuel, to escape through a vent opening.
- 🔧 Attach a safety nozzle to portable gas cans used to fill outboard engines. These nozzles automatically stop the flow of fuel when the receiving tank is full.
- 🔧 To prevent oily bilge water from being discharged, install a bilge pump switch that leaves an inch or two of water in the bilge. Alternatively, connect a bilge water filter to your vessel’s bilge pump. Filters will remove oil, fuel, and other petroleum hydrocarbons from the water.
- 🔧 When it is time to buy a new engine, select a fuel-efficient, low-emission model.



*Fuel bib
(BoatU.S. Foundation).*