Fact Sheet 1 - Petroleum

Petroleum in or on the water is harmful and, in some cases, fatal to aquatic life.Floating petroleum is particularly bad because it reduces light penetration and the exchange of oxygen at the water's surface. Floating oil also contaminates the microlayer. The microlayer refers to the uppermost portion of the water column. It is home to thousands of species of plants, animals, and microbes. 99% of the Chesapeake Bay's blue crab larvae feed in the microlayer which also serves as a nursery ground for rockfish. The abundance of life in the microlayer attracts predators: seabirds from above and fish from below. Pollution in the microlayer has the potential to poison much of the aquatic food web.

The Law

The Federal Water Pollution Control Act (also called the Clean Water Act) prohibits the discharge of oil or oily waste into or upon the navigable waters of the United States or the waters of the contiguous zone if such discharge causes a film or sheen upon, or discoloration of, the surface of the water, or causes a sludge or emulsion beneath the surface of the water. Violators are subject to a penalty of $5,000 from the U.S. Coast Guard. State law also prohibits the discharge of oil with additional fines as a consequence.

Methods

Fueling Practices

Gas or diesel that is spilled during the act of fueling, as a result of backsplash out the fuel intake or as overflow out the vent fitting is harmful to the environment and coasts you money. Silled gas and diesel fuel are harmful to aquatic life and can stain boat hulls and damage gel coatings. Follow these tips to avoid problems:

- Fill tanks to no more than 90% capacity- gas that is drawn from cool storage tanks will expand as it warms up onboard your vessel.
- To determine when the tank is 90% full, listen to the filler pipe, use a sounding stick, and be aware of your tank's volume.
- 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 fuel will be used before it has a chance to warm up.
- Fill portable tanks ashore where spills are less likely to occur and easier to clean up.
- Use oil absorbent pads to catch all drips.
- Slow down at the beginning and ending 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 tuned to minimize the amount of oil that is released. Be sure there are no leaking seals, gaskets, or hoses. This will also save you costly engine repairs in the future.
- Place oil absorbent materials or a bioremediating bilge boom in the bilge.
- Place an oil absorbent pad under the engine.
- Replace oil absorbent materials regularly. Recycle them if practical.
- Look for contractors or marinas that offer a bilge pumpout service.
- **Do not** treat oily water with detergents. Soaps pollute and make clean up impossible. You may be fined up to $25,000 for using soap 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. Follow these tips:

- Standard absorbents that are saturated with gasoline may be air dried and reused.
- Standard absorbents saturated with oil or diesel may be wrung out over oil recycling bins (if they are saturated with oil or diesel only!) and reused. Alternatively, they should be double bagged with one plastic bag sealed inside of another and tossed in your regular trash.
- Bioremediating bilge booms may be disposed in your regular trash as long as they are not dripping any liquid. Because the microbes need oxygen to function, do not seal them in plastic bags.

Air Emissions Control
Marine engines-especially 2-stroke outboard motors- produce the highest average level of hydrocarbon exhaust emissions in the air after lawn and garden equipment. Hydrocarbon emissions contribute to ground level ozone, a known health risk. 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
Products are available commercially which can help you prevent spills and reduce emissions.

- 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.

In Case Of A Spill
• Stop the flow
• Contain the spill
• Call the U.S. Coast Guard National Response Center at (800) 424-8802.