

Minimizing an Oil Spill Clean-Up Bill continued from page 1 . . .

4. Know where your vessel's vents and valves are. Many owners and operators do not know their fuel systems well enough to describe them to a diver. Make a diagram of the fuel system, noting sizes of pipes and fittings. Leave this diagram in a safe place where it can be found quickly. Do not keep the only copy onboard.

5. Always know how much fuel is on board. This keeps costs down, preventing extra contractor trips to the site because of initially insufficient equipment.

6. Whenever possible, opt for fuel tanks that can be pumped from outside the boat. A deck fitting opening is not sufficient as it will let in water. Unfortunately, stove oil tanks and hydraulic or lube oil tanks are often accessible only from inside the vessel, making them difficult to pump. For safety reasons, divers do not want to go inside submerged boats.

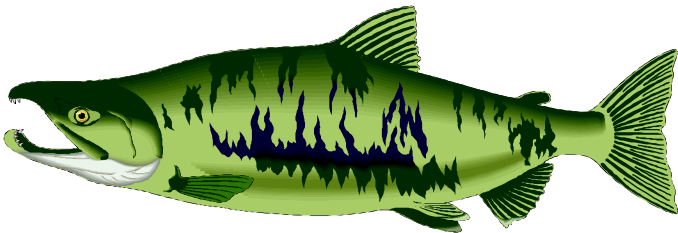
7. Have oil absorbent materials on hand for small clean-up jobs. Keep your vessel clean.

8. A boat should never be used as a storage vessel for unnecessary fuel. Jugs of bad fuel, waste oil and spare fuel not needed for the trip should be left ashore. They are sources of potential pollution problems.

9. The most common sources of pollution are overfull tanks. Have scupper plugs and use them when fueling. Have absorbents within reach when refueling. Refueling is a two-person job. One person stands by vents with absorbents and the other fuels.

10. When building or rebuilding a boat, use straight plumbing drops into tanks, if possible. This makes it easier to remove fuel from tanks.

11. Early action to effectively plug tanks is critical. When a contractor cannot curtail pollution from tanks with pumps, the whole vessel becomes a source of pollution. Booms, skimmers and full crews are then needed to deal with oil as it surfaces. This becomes *really* expensive!



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COMPASS & ROPE

EXERCISE CARDS

for exercise explained on page 5

POSITIONS #1 & #3

1. Find bearing of 90 magnetic degrees to the east, walk 24 steps
2. Find bearing of 360 magnetic degrees, walk 4 steps
3. Find bearing of 270 magnetic degrees, walk 24 steps
4. #1 will end up at position #3
#3 will end up at position #5

POSITIONS #2 & #4

1. Find bearing of 270 magnetic degrees to the west, walk 24 steps
2. Find bearing of 360 magnetic degrees, walk 8 steps
3. Find bearing of 90 magnetic degrees, walk 24 steps
4. #2 will end up at position #6
#4 will end up at position #8

POSITIONS #5, #7 & #9

1. Find bearing of 90 magnetic degrees to the east, walk 20 steps
2. Find bearing of 180 magnetic degrees, walk 4 steps
3. Find bearing of 270 magnetic degrees, walk 20 steps
4. #5 will end up at position #3
#7 will end up at position #5
#9 will end up at position #7

POSITIONS #6, #8 & #10

1. Find bearing of 270 magnetic degrees to the west, walk 20 steps
2. Find bearing of 180 magnetic degrees, walk 8 steps
3. Find bearing of 90 magnetic degrees, walk 20 steps
4. #6 will end up at position #2
#8 will end up at position #4
#10 will end up at position #6