Boat Cleaning

Applicability

This section applies to marina operators and individual boat owners.

Background

A man pressure washes a boat hull in a designated area equipped to reduce the impact of wastewater (Source: U.S. EPA Clean Marinas/Clear Value).

As noted in the Liquid Materials section on pages 55-57, some of the common products used by boat owners and marina operators to clean boats can cause harm to the aquatic environment if care is not taken during their use. Special care and consideration should be taken when cleaning boats in the water. Some cleaning products contain harsh chemicals such as chlorine, ammonia, and phosphates that can harm fish and wildlife. If the product is labeled as being harmful to the user ("toxic" or "may cause burns") it is most likely harmful to aquatic life. While the potential of harm in cleaning a single boat is quite low, it must be multiplied by the number of people cleaning their boats. Many products on the market promise a sparkling shine and ensure that they will get the surface clean with minimal effort by the user. However, there are old-fashioned, environmentally-sound methods of boat cleaning. The old adage "use a little elbow grease" is a good mantra to follow.

An additional concern regarding boat cleaning involves the antifouling paints that are used on boat hulls to prevent the boats from getting covered in algae or slime or encrusted with zebra mussels. Aggressive cleaning such as mechanical scrubbing below the waterline can displace this paint, allowing it to settle to the bottom.

Some of the chemicals contained in cleaners or antifouling paints can bioaccumulate in aquatic organisms. They become more concentrated as they are ingested successively by animals higher up on the food chain. Ultimately, these contaminants could wind up in the fish that are eaten by people. If boat cleaning is done in an environmentally-sensitive manner the introduction of these chemicals can be reduced.

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Existing Federal and State Laws

Marina operators should note that under the Clean Water Act, the National Pollutant Discharge Elimination System Permitting Program defines boat wash water as "processed water" (U.S. EPA, 2001). Discharge of any processed water is illegal without a permit from IDEM under this program. Any questions involving this program should be directed towards IDEM's Office of Water Quality, Permit Branch at (800) 451-6027.

The Indiana Department of Natural Resources regulates the disposal of wastes near lakes and prohibits the disposal of contaminants or wastes within 15 feet of a lake or in a floodway. It is illegal to discharge waste, oil, trash or other toxic substances into Indiana state waters under IC 14-15-2-8.

Best Management Practices

Recreational boaters and marina operators can implement these best management practices while cleaning boats.

- Whenever possible, wash the boat on land in a contained area where the wash water can be collected and treated.
- Wash boat hulls above the waterline by hand using a soft sponge and frequently enough so that the need to use cleaners will be reduced.
- Avoid using caustic cleaners such as bleach, ammonia or lye. Do not use petroleum-based cleaning products.

This professional boat cleaning service uses "elbow grease" and environmentally-friendly cleaning products.

- If possible, use cleaning products that are environmentally friendly (e.g., non-toxic or phosphate-free). Always follow the instructions on the label and test the product in an inconspicuous area. Use the products sparingly and only when "elbow grease" is not working. Beware of biodegradable cleaners that may still be toxic. Some homemade non-toxic cleaning alternatives are listed on page 64.
- Use long-lasting or low-toxicity antifouling paints. Use silicone or hard-surfaced nonablative copper metal-based paints.

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These boat cleaning professionals wash boats on land.

- Take precautions to prevent the spread of aquatic invasive species when transferring boats from one water body to another by using hot water and allowing the boat to thoroughly dry for a minimum of five days. Boaters in the Great Lakes can take additional precautions to help prevent the spread of viral hemorrhagic septicemia (VHS) by disinfecting their boat and gear with a dilute bleach solution. Disinfection with bleach should occur away from lakes and rivers because it is toxic to aquatic life. Please refer to pages 71-77 for more information on nuisance and aquatic invasive species.
- Keep your boat waxed. A good coat of wax will prevent surface dirt from becoming ingrained in the hull and makes your boat easier to clean later.
- Minimize the impacts of wastewater from pressure washing. This can be done by using settling traps where the wash water is allowed to sit long enough for the large particles to settle to the bottom before discharging the water, by using a filtration unit that screens out particles, and chemical or biological treatment of the collected water. Treatment can remove oil, grease, metals and other contaminants. Effluent from pressure washing usually will require a storm water discharge permit.

Tip

If collecting and treating wastewater is not feasible, wash boats on a permeable surface such as gravel or on a lawn as far away from the waterway or storm drain as possible. This will allow the wastewater to infiltrate into the ground. Make sure, however, that there is no drinking water well nearby. Place filter fabric over the permeable surface to collect solids. Dispose of solids in an appropriate manner.

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Non-Toxic Cleaning Alternatives

- **All Purpose Cleaner**
  Straight vinegar, vinegar and salt, or a paste of baking soda and water are all effective grease cutters.

- **Aluminum Cleaner**
  After removing as much substance as possible, fill a pan with one quart of water and two tablespoons cream of tartar. Bring to a boil and simmer for ten minutes. Rinse well.

Environmentally-friendly cleaning products have less of an impact on the environment than toxic or phosphate-containing products.

- **Window/Glass Cleaner**
  Fill a spray bottle with equal amounts of vinegar and water. Apply with a soft cloth and dry with a squeegee or newspaper.

- **Furniture Polish**
  Use olive oil on all wood surfaces. Apply with a soft cloth, rub in, let stand for several hours, and then polish with a soft, dry cloth to remove any residue.

- **Tile Cleaner**
  Sprinkle baking soda on a sponge or green scouring pad. Add vinegar to remove rings or soap scum.

- **Decorative Metal Cleaner**
  (for brass, copper or pewter)
  Combine 1/2 cup of salt with 1/2 cup white vinegar. Add enough flour to make a paste. Apply and let sit 15 minutes to one hour. Rinse thoroughly to prevent corrosion. Salt and vinegar should not be used on metals that have a lacquer coating.

- **Copper Cleaner**
  Make a paste of lemon juice, salt and flour.

- **Fiberglass Stain Remover**
  Use a paste of baking soda.

- **Mildew Remover**
  Combine lemon juice and salt or white vinegar and salt to make a paste.

For More Information

Appendix D – (pages 105-110)
Complying With the Hazardous Waste Rules

Appendix H – (pages 159-162)
Hazardous Waste Generator Status and How the Rules Apply to You

Appendix I – (pages 163-169)
Selecting a Waste Transporter and Waste Management and Recycling Company