

Appendix A

Broward County BMPs

001 Discharge of Sewage from Vessels: (excludes "Gray" water), see B.M.P. #002: Marine facility operator shall advise all tenants of the following:

A. It is illegal to discharge raw or untreated sewage into the waters of Broward County and such acts are punishable by fines of up to \$15,000 per day.

B. The location of the nearest public sewage pumpout facilities; and C. All permanently installed sewage systems on vessels must be either approved Type I or II Marine Sanitation Devices or must be locked off while the vessel is docked.

Marine facility operators shall require all tenants to certify their knowledge and acceptance of these provisions in writing before providing dockage and shall further disallow dockage to any vessel which the marine facility operator knows or has reason to know is discharging sewage in violation of this section.

002 Bilge Water: Bilge water and "gray" water that are not contaminated by oil, fuel or other regulated contaminants may be discharged into surface waters or on land. Federal, state and local regulations prohibit the discharge of bilge water and "gray" water that are contaminated by oil, fuel or other regulated contaminants. Boat owners shall be liable for complying with these regulations and marine facilities shall inform facility users of these regulations. Marine facilities shall have supplies and equipment accessible to remove oil and fuel from bilge water so that it may be disposed of legally. These shall include petroleum absorbents and a written action plan to deal with significant quantities of oil, fuel or other regulated contaminants. "Gray" water shall mean waste water from galley operations (dish washing) and from hand basins and showers.

003 Pumpout Facility: All marine facilities which have live-aboard vessels shall:

1) Have a fixed or portable sewage pumpout system facility approved by DPEP which shall be maintained in operating condition and shall have appropriate signage; or

2) Maintain an agreement with a mobile waste hauler who is obligated to remove sewage from all live aboard vessels on a regular basis; or

3) Be located within onehalf mile of a municipal pumpout facility or private pumpout facility which is obligated to provide pumpout services to tenants of the marine facility and about which the tenants of the marine facility have been notified. For purposes of this section, "live aboard" shall be defined as any vessel stored in the water and used primarily as a residence. This term shall not encompass those vessels which accommodate persons for 72 hours or less.

004 Petroleum and Related Products Storage and Handling:

Petroleum products shall not be discharged into a storm drain, sanitary sewer or onto the open ground or surface waters. Care must be taken in handling these products and spills cleaned up promptly at the time detected. All marine facilities shall maintain a supply of petroleum absorbent material and "spill-dry" in a readily accessible location. In addition, all marine facilities must have a written Spill Prevention and Contingency Plan to deal with petroleum product spills. All spills greater than 10 gallons or 80 pounds shall be reported to Broward County Department of Planning & Environmental Protection. All storage containers must be surrounded by secondary containment, preferably covered and isolated from weather elements, which consists of an impermeable membrane or structure in which

tanks or containers are placed. All materials in secondary containment shall be compatible.

[Broward County Code Chapter 27-356]

A. Used Oil: This includes used engine oil, transmission fluid, hydraulic oil, gear oil. Used oil must be stored in a non-leaking container clearly marked "used oil" on an impermeable surface, and covered in a manner that will prevent rain water from entering the container. Oil spills must be prevented from leaving the area by means of a berm or retaining structure. Used oil must be removed from the site by a waste transporter permitted to handle this waste product and records must be retained for inspection. [Broward County Code Chapter 27-356]

B. New Oil: This includes new engine oil, transmission fluid, hydraulic oil, gear oil. These petroleum products must be kept in non-leaking containers on an impermeable surface and covered in a manner that will prevent rainwater from entering the container. Leaking containers must be emptied promptly upon detection, either by transferring the product to a non-leaking container or by disposing of it in the "waste oil" container.

[Broward County Code Chapter 27-356]

C. Anti-Freeze Engine Coolant: Anti-freeze engine coolant, when drained from an engine, must be stored in a clearly marked container on an impervious surface, under cover. It cannot be disposed of down a storm drain or in a septic system. Disposal to a sewer must be permitted by the sewage system owner. Or, it must be removed from the site by a waste transporter permitted to handle this waste product and records must be retained for inspection.

[Broward County Code Chapter 27-356]

D. Waste Gasoline: Must be stored in a nonleaking container, on an impermeable surface and covered to prevent rainwater from entering the container. The container must be clearly labeled "waste gasoline" and the storage location must conform to local Fire Codes. Whenever possible, waste gasoline shall be filtered and used as a fuel. Waste gasoline shall not be discharged to the ground, storm sewers or to surface waters of Broward County. Waste gasoline must be removed from the site by a waste transporter permitted to handle this waste product and records must be retained for inspection.

[Broward County Code Chapter 27-356]

E. Paints, and Waste Diesel, Kerosene, Mineral Spirits: These products must be stored in nonleaking containers on an impermeable surface, and covered to prevent rainwater from entering the container. Each container must be clearly labeled with its contents. The storage locations shall conform to local Fire Codes and to Chapter 27 of Broward County Regulations. The disposal of waste products must be by a waste transporter permitted to handle such wastes, and records must be retained for inspection. Waste petroleum products or paints shall not be discharged to the ground, storm sewers, septic systems, sewage systems or to the surface waters of Broward County.

[Broward County Code Chapter 27-356]

F. Underground Storage Tanks: Storage tanks are regulated by Broward County Code Chapter 27 and may require a separate storage tank license. Information can be obtained from the DPEP Storage Tank Section.

005 Spills: Spills of hazardous materials greater than 10 gallons or 80 pounds shall be reported to Broward County Department of Planning & Environmental Protection at (954)519- 1499. Remediation of contaminated areas may require a license from DPEP in accordance with the requirements of Broward County Code Chapter 27-356.

A. Oil spills on land: Oil spills shall be collected and put into the waste container. Oil residues may be absorbed with "spill-dry" or a similar product and shall be disposed of by a waste transporter

permitted to handle such wastes and records must be retained for inspection. For all spills on land that impose an immediate threat, contact National Response Center (800- 424-8802) and Florida State Warning Point (800-320-0519).

B. Fuel spills on land: Spilled diesel fuel shall be collected and placed in a waste drum. Uncollectible residual amounts may be absorbed using "spill-dry" or other petroleum absorbent materials and shall be disposed of by a waste transporter permitted to handle such wastes, and records must be retained for inspection. All affected materials including soils must be drummed. For spills of 25 gallons or more, a discharge notification form must be completed and filed with DPEP. Spilled gasoline shall be collected and placed in the waste container. Residues remaining on the ground may be absorbed with "spill dry" or absorbent pads, but the absorbent material must be thoroughly aerated before disposing with the regular trash to remove gasoline vapors.

C. Spills on water: There shall be kept on hand a floating containment boom large enough to enclose the area of surface water where a spill may reasonably be expected to occur, but with a minimum length of forty (40) feet. Petroleum absorbent materials shall also be kept available to absorb spills on the surface water. Reporting requirements for fuel spills shall be followed as per Coast Guard (954- 927-1611), DPEP (954- 519-1499) and Florida Marine Patrol (800- DIAL FMP) regulations. Staff at fueling facilities shall have proper training in the deployment of fuel spill equipment and materials.

D. Grease: Spilled or waste grease shall be collected and put into the waste oil container. Residues remaining on the ground may be absorbed with "spill-dry" or a similar product and disposed of with the regular trash.

E. Oil or fuel filters: Oil or fuel filters must be crushed and drained before disposal by placing the filter in a funnel over the appropriate waste collection container to allow the excess petroleum product to drain into the container. Drained filters must be collected and recycled.

006 Fueling Operations: It is the responsibility of the marine facility to properly supervise the fueling operations.

A. Stationary Operations: Fuel nozzles must have automatic back pressure shut-offs and must not have a holding clip to keep the nozzle open (i.e., the nozzle shall only be held open by hand). In the immediate vicinity of the dispenser, there must be petroleum absorbent pads readily accessible in the event of a small spill. If fuel accidentally spills in the water or onto the ground, the person fueling the boat shall use the absorbent pads to remove the fuel from the water surface or from the ground. These absorbent pads shall be dried in the open air under sunlight and may then be disposed of per B.M.P.#005. In cases of larger spills, an appropriate environmental contractor shall be hired, and all affected material shall be drummed and disposed of by the contractor.

B. Mobile Fueling Operations: Mobile fueling operations at any facility shall be the joint responsibility of the marine facility, the tank truck operator and the vessel owner. Extreme caution must be taken to prevent spills from occurring.

007 Used Lead-Acid Batteries: These must be stored on an impervious surface, under cover, and sent to or picked up by an approved recycler. Records must be retained for inspection.

008 Washing by Hand Above Water Line: Detergents and cleaning compounds used for washing boats shall be biodegradable and amounts shall be kept to a minimum. The waste water generated by low pressure boat washing, including initial rinse off of boats kept primarily in dry storage, which contains no bottom paint, shall not be considered an industrial discharge or "hazardous waste" as defined in Chapter 27- 352 of the Broward County Code.

009 Steam Cleaning: Must be done on an impervious area designed to collect and contain the cleaning effluent. Discharges to surface waters are prohibited.

A. If detergents or solvents are not used, the steam cleaning effluent shall be directed to a properly sized grease trap/oil-water separator connected to a sanitary sewer. The grease trap/oil-water separator must provide adequate treatment to allow the effluent to meet sewer standards.

B. If detergents or solvents are used, the oil and grease are emulsified, and a grease trap would no longer function properly. In these cases, treatment or recycling systems must be used. This water shall be considered industrial waste water and discharge to septic systems is prohibited. If sanitary sewers are not available, waste water must be hauled by a DPEP licensed hauler.

C. No domestic waste water, industrial waste water, or other wastewater shall be discharged into any sewer designated to carry storm water, nor shall storm water be discharged into a sewer designed to carry domestic waste water. No industrial waste water shall be discharged to sewers without prior approval from the sewage system owner and/or governing municipality.

010 Pressure Cleaning: The use of high-pressure water cleaning equipment for the initial rinse-off of a vessel hauled from the water is acceptable.

This process shall be restricted to an area with an impermeable surface (such as sealed asphalt or sealed concrete) and with a berm or pitch, which allows the wastewater to be contained and collected. Wastewater from pressure cleaning may not be discharged to septic tank or surface waters. Wastewater may be disposed through the sanitary sewer provided the wastewater meets the standards for sanitary sewer disposal. (See BMP 009.) Tanks used to collect wastewater and remove solids shall be considered process tanks. Paint solid constituents classified as hazardous must be removed by a licensed hauler. (Broward County Code Chapter 27-367 and 27-368).

011 Bottom Paint Removal: Boat bottom paints contain metal compounds that are toxic to marine life and the removal of these paints from the bottom of a boat produces a waste product that degrades the environment. Discharges to surface waters are prohibited.

Paints containing tin compounds are regulated by the EPA and these paints may be applied or removed only by persons or organizations licensed by the EPA. The EPA regulations regarding storage, application, disposal of paint containers and paint residues, sanding dust, etc. are incorporated herein by reference.

Bottom paint shall be removed as follows:

A. Wet: Removing bottom paint by high pressure water or with a low-pressure hose and a scrubber or a scraper, produces “industrial wastewater” as defined in Chapter 27. As a result, this activity must be conducted over an impermeable surface such as sealed asphalt or cement (not over open ground) with a retaining berm so that the wastewater can be contained. This wastewater may be recycled or disposed of, but prior to disposal, it must be treated so as to reduce the levels of concentrations of heavy metals (principally copper) and meet the standards for disposal in sanitary sewers, as defined in Chapter 27. Refer to BMP #009 for conditions of discharge to sanitary sewer systems. Paint solids shall be collected and disposed of properly.

B. Dry: Removing bottom paint by dry sanding (either by hand or with power tools) produces a sanding dust containing potentially hazardous metals (principally copper). This sanding must be done over an impervious surface such as asphalt, cement, or a

material such as canvas, plastic, etc. (not over open ground) and there must be a berm or retaining wall surrounding the area so that the sanding dust can be swept or vacuumed and disposed of properly.

- C. Sand blasting should be confined where possible pursuant to FAC 17-2.610(3)(c)7, "Unconfined Emissions of Particulate Matter, Reasonable Precautions." Wet sand blasting shall be subject to the same provisions as other wet paint removal operations. Paint chips, sanding debris and other solids that are hazardous must be removed by a licensed hauler.

012 Sanding Hull or Topsides: The sanding dust generated by this activity shall be collected and disposed of properly and may not be intentionally discharged into a storm drain or onto surface waters. Sand blasting should be confined where possible (Florida Administrative Code Rule 17-2.610(3)(c)7 Unconfined Emissions of Particulate Matter, Reasonable Precautions. Wet sand blasting shall be subject to the same provisions as other wet paint removal operations.

- A) Where sanding is conducted on land, reasonable precautions shall include laying drop cloths beneath the area being sanded and collecting the debris for proper disposal.
- B) Where sanding is conducted in the water, reasonable precautions shall include surrounding the immediate area with floating booms and removing the debris with a skimmer to the greatest extent possible.

013 Spray Painting: All spray-painting operations shall be performed in compliance with Broward County Code of Ordinances, Section 27- 173 (d) Objectionable Odor, and (e) Volatile Organic Compounds (VOC) Emissions or Organic Solvent Emissions. This involves good work practices such as:

- Store waste paint and solvent only in covered containers to prevent evaporation to the atmosphere;
- Direct solvent from cleaning spray equipment into containers to prevent evaporation to the atmosphere;
- Whenever possible use solvents with low volatility and coating with low VOC content; and
- Use coatings application technique to allow or high transfer efficiency.

At all facilities where more than 2.5 gallons of coatings are sprayed in a five-day week, the paint spray operation shall be performed in compliance with Broward County Code of Ordinances, Sec. 27-173 (f), Table II that requires an appropriately enclosed area.

- A) **Spray painting on land:** Must occur over an impermeable surface and in such a manner that overspray does not fall on open ground or surface waters. A boom must be available to contain any overspray on surface waters. Overspray on water must be removed immediately from the surface of the water.
- B) **Spray painting over water:** Area must be boomed such that all overspray can be collected via skimming or other effective method.

014 Washing by Hand above the Water Line: Detergents and cleaning compounds used for washing boats shall be biodegradable and amounts shall be kept to a minimum. The wastewater generated by low pressure boat washing, including initial rinse off of boats kept primarily in dry

storage, which contains no bottom paint, shall not be considered an industrial discharge or "hazardous waste" as defined in Chapter 27-212.

015 Petroleum and Related Products Storage and Handling: Petroleum products shall not be discharged into a storm drain, sanitary sewer or onto the open ground or surface waters. Care must be taken in handling these products and spills cleaned up promptly at the time detected. All marine facilities shall maintain a supply of petroleum absorbent material and "spill-dry" in a ready accessible location. In addition, all marine facilities must have a written Spill Prevention and Contingency Plan to deal with petroleum product spills. All spills greater than 10 gallons or 80 pounds shall be reported to Broward County Office of Natural Resource Protection. All storage containers must be surrounded by secondary containment, preferably covered and isolated from weather elements, which consists of an impermeable membrane or structure in which tanks or containers are placed. All materials in secondary containment shall be compatible. [Broward County Code Chapter 27-367]

- A. Waste Oil:** This includes waste engine oil, transmission fluid, hydraulic oil and gear oil. Waste oil must be stored in a non-leaking container clearly marked "waste oil" on an impermeable surface and covered in a manner that will prevent rainwater from entering the container. Oil spills must be prevented from leaving the area by means of a berm or retaining structure. Waste oil must be removed from the site by a waste transporter permitted to handle this waste product and records must be retained for inspection. [Broward County Code Chapter 27-367 and 27-368]
- B. New Oil:** This includes new engine oil, transmission fluid, hydraulic oil and gear oil. These petroleum products must be kept in non-leaking containers on an impermeable surface and covered in a manner that will prevent rainwater from entering the container. Leaking containers must be emptied promptly to a non-leaking container or by disposing of it in the "waste oil" container. [Broward County Code Chapter 27-367 and 27-368]
- C. Anti-Freeze Engine Coolant:** Anti-freeze engine coolant, when drained from an engine, must be stored in a clearly marked container on an impervious surface, under cover. It cannot be disposed of down a storm drain or in a septic system. Disposal to a sewer connected to a POTW must be permitted by the POTW owner. Or, it must be removed from the site by a waste transporter permitted to handle this waste product and records must be retained for inspection. [Broward County Code Chapter 27-367]
- D. Waste Gasoline:** Must be stored in a non-leaking container, on an impermeable surface and covered to prevent rainwater from entering the container. The container must be clearly labeled "waste gasoline" and the storage location must conform to local Fire Codes. Whenever possible, waste gasoline shall be filtered and used as a fuel. Waste gasoline shall not be discharged to the ground, storm sewers or to surface waters of Broward County. Waste gasoline must be removed from the site by a waste transporter permitted to handle this waste product and records must be retained for inspection. [Broward County Code Chapter 27-367 and 27-368]
- E. Paints, and Waste Diesel, Kerosene, Mineral Spirits:** These products must be stored in non-leaking containers on an impermeable surface and covered to prevent rain water from entering the container. Each container must be clearly labeled with its contents. The storage locations shall conform to local Fire Codes and to Chapter 27 of

Broward County Regulations. The disposal of waste products must be by a waste transporter permitted to handle such wastes, and records must be retained for inspection. Waste petroleum products or paints shall not be discharged to the ground, storm sewers, septic systems, POTW's or to the surface waters of Broward County. [Broward County Code Chapter 27-367 and 27-368]

016 Disposal of Solid Waste: All facilities shall provide an adequate number of leak proof containers for the disposal of solid waste and garbage. All marina facilities shall post a minimum of two (2) signs prominently placed to educate the public to keep trash from entering the water.

017 Fueling Operations: It is the responsibility of the marine facility to properly supervise the following operations.

B. Mobile Fueling Operations: Mobile fueling operations at any facility shall be the joint responsibility of the marine facility, the tank truck operator and the vessel owner. Extreme caution must be taken to prevent spills from occurring.

018 Bilge Water: Federal, state and local regulations prohibit the discharge of bilge water and "gray" water that is contaminated by oil, fuel or other regulated contaminants. Boat owners shall be liable for complying with these regulations and marine facilities shall inform facility users of these regulations. Marine facilities shall have supplies and equipment accessible to remove oil and fuel from bilge water so that it may be disposed of legally. These shall include petroleum absorbents and a written action plan to deal with significant quantities of oil, fuel or other regulated contaminants. "Gray" water shall mean wastewater from galley operations (dish washing) and from hand basins and showers.

019 Hurricane Preparedness Plan: All marine facilities shall prepare a written hurricane preparedness plan for their facility and provide a copy to all vessel owners using the facility during hurricane season.

020 Tenant Notification by Facility Owner: All marine facilities shall make their tenants aware of the applicable requirements set out by these Best Management Practices and tenant's responsibility for tenant's infractions. Except as otherwise noted in these practices, this notification may take the form of a sign, easily readable and posted at a conspicuous common area of the facility, which contains the following information:

Vessels with the capacity to store 10,000 gallons or more of diesel fuel are required to have a Vessel Spill Contingency Plan according to Chapter 376, Florida Statutes. The captain and crew members designated as "Spill Response Officer(s)" and "Emergency Response Team" in the plan are required to complete an eight (8) hour OSHA training class in emergency response.

The facility owners and operators are committed to the preservation of the local water, land and air quality and comply with the requirements of the Broward County Best Management Practices for Marine Facilities.

Sound environmental practices require all Tenants obey the following rules:

- 1) No raw sewage or oil-contaminated bilge water may be discharged into the water.
- 2) All hazardous chemicals, including waste oil, engine coolant, hydraulic fluid, gasoline, diesel, paint, and mineral spirits may only be disposed of in the marked barrels/containers located at the Service Shop.
- 3) All spills of gas, diesel, oil or other hazardous materials must be reported immediately to the facility operator.
- 4) Boats may only be washed with biodegradable soaps and the amount of soap used must be kept to a minimum.
- 5) Removed paint chips must be captured and taken to the marked barrels located . If more than a small area is being sanded, sanding debris must also be captured by tarps or booms and thrown in the trash. This debris may not be allowed to enter the water or the ground and may not be left where it might be exposed to rainwater.

Violations of these rules should be reported to the Broward County Office of Natural Resource Protection at 756-4900 Violators subject to heavy fines.

021 Spills: Spills greater than 10 gallons or 80 pounds shall be reported to Broward County Office of Natural Resource Protection at (305) 765-4900. Remediation of contaminated areas may require a permit from BROWARD COUNTY in accordance with the requirements of Broward County Code Chapter 27-367.

A. Oil Spills on Land: Oil spills shall be collected and put into the waste container. Oil residues may be absorbed with "spill-dry" or a similar product and shall be disposed of by a waste transporter permitted to handle such wastes, and records must be retained for inspection.

B. Fuel Spills on Land: Spilled **diesel fuel** shall be collected and placed in the waste container. Un-collectible residues amounts may be absorbed using "spill-dry" or other petroleum absorbent materials and shall be disposed of by a waste transporter permitted to handle such wastes, and records must be retained for inspection.

Spilled **gasoline** shall be collected and placed in the waste container. Residues remaining on the ground may be absorbed with "spill-dry" or absorbent pads, but the absorbent material must be thoroughly aerated before disposing with the regular trash to remove gasoline vapors.

C. Spills on Water: There shall be kept on hand a floating containment boom large enough to enclose the area of surface water where a spill may reasonably occur, but with a minimum length of forty (40) feet. Petroleum absorbent materials shall also be kept available to absorb spills on the surface water. Reporting requirements for fuel spills shall be followed as per Coast Guard, (305) 927-1611 and BROWARD COUNTY, (305) 765-4900 regulations. Staff at fueling facilities shall have proper training in the development of fuel spill equipment and materials.

- D. Grease:** Spilled or waste grease shall be collected and put into the waste oil container. Residues remaining on the ground may be absorbed with "spill-dry" or a similar product and disposed of with the regular trash.
- E. Oil or Fuel Filters:** Oil or fuel filters must be crushed and drained before disposal by placing the filter in a funnel over the appropriate waste collection container to allow the excess petroleum product to drain into the container. Drained filters must be collected and recycled.

022 Pump-out Facility: All marine facilities that have live-aboard vessels shall:

- 1) have a fixed or portable sewage pump-out system facility approved by Broward County which shall be maintained in operating condition and shall have appropriate signage, or
- 2) Maintain an agreement with a mobile waste hauler who is obligated to remove sewage from all live aboard vessels on a regular basis, or
- 3) be located within one-half mile of a municipal pump-out facility or private pump-out facility which is obligated to provide pump-out services to tenants of the marine facility and about which the tenants of the marine facility have been notified.

Appendix B

EPA General Permit Requirements, Measures and Controls

Part IV.D.3

Each facility covered by this permit shall develop a description of storm water management controls appropriate for the facility and implement such controls. The appropriateness and priorities of such controls in a plan shall reflect identified potential sources of pollutants at the facility. The description of storm water management controls shall address the following minimum components, including a schedule for implementing such controls: Good housekeeping, preventative maintenance, visual inspections, spill prevention and response, sediment and erosion control, management of runoff, employee training and record keeping and recording.

EPA General Permit Requirements, Non-Storm Water Discharges

Part IV.D.3.g(1)

The Plan must include a certification that all storm water outfalls have been tested for the presence of non-storm water discharges. Examples of non-storm water discharges include any water used directly in the manufacturing process, air conditioner condensate, non-contact cooling water, vehicle washwater, or sanitary wastes. Unless permitted by a NPDES permit, such discharges are illegal.

EPA Non-point Source Guidelines, Chapter 5, Section E

States apply this management measure to new and expanding marinas, and to existing marinas for at least the hull maintenance areas. This measure is not applicable to runoff that enters the marina property from upland sources under the “Coastal Zone Act Re-Authorization Amendments of 1990”.

The proper design and operation of the marina hull maintenance area is a significant way to prevent the entry of toxic pollutants from marina property into surface waters. Recommended design features include the designation of discrete impervious areas (e.g., cement areas) for hull maintenance activities; the use of roofed areas that prevent rain from contacting pollutants; and the creation of diversions and drainage of off-site runoff away from the hull maintenance area for separate treatment. Source controls that collect pollutants and thus keep them out of runoff including the use of sanders with vacuum attachments, the use of large vacuums for collecting debris from the ground, and the use of tarps under boats that are being sanded or painted.

The pervious nature of non-hull maintenance areas should be maximized to reduce the quantity of runoff. Maximizing porosity can be accomplished by placing filter strips around the parking areas. Design a boat hull maintenance area to minimize contaminated runoff.

Boat hull maintenance areas can be designed so that all maintenance activities that are significant potential sources of pollution can be accomplished over dry land and under roofs (where practical), allowing the collection and proper disposal of debris, residues, solvents, spills, and storm water runoff. Boat hull maintenance areas can be specified with signs, and hull maintenance should not be allowed to occur outside these areas. The use of impervious surfaces (e.g., cement) in hull maintenance areas will greatly enhance the collection of sanding dust, paint chips, etc. by vacuuming or sweeping.

A. Implement source of control practices.

Source control practices prevent pollutants from meeting runoff. Sanders with vacuum attachments are effective at collecting hull paint sanding's (Schlomann, 1992). Encouraging the use of such sanders can be accomplished by including the price of their rental in boat haul-out and storage fees, in effect making their use by marine patrons free. Vacuuming impervious areas can be effective in preventing pollutants from entering runoff. The tarpaulins will collect paint chips, sanding and paint drippings and should be disposed of in a manner consistent with State policy.

B. Sand filter.

Sand filters (also know as filtration basins) consists of layers of sand varying grain size (grading from coarse sand to fine sands of peat), with an underlying gravel bed for infiltration of perforated under drains for discharge of treated water.

C. Chemical and Filtration Treatment Systems.

Chemical treatment of wastewater is the addition of certain chemicals that causes small solid particles to adhere together to form larger particles that settle out or can be filtered. Filtration systems remove suspended solids by forcing the liquid through a medium, such as folded paper in a cartridge filter. The solid waste generated by these systems may be considered hazardous waste and may be subject to disposal restrictions.

D. Holding Tanks.

Holding tanks act as underground detention basins that capture and hold storm water until it can receive treatment. There are generally two classes of tanks -- first flush and settling tanks. The contents of the first flush tank are transported via pump-out or gravity to another location for treatment. Settling tanks are used when a pronounced first flush is not expected. Settling tanks require periodic cleaning.

EPA General Permit Requirements, Non-Storm Water Discharges
Part IV.D.3.g.(1)

The plan must include a certification that all storm water outfalls have been tested or evaluated for the presence of non-storm water discharges. The certification shall include:

1. Identification of potential non-storm water discharges;
2. A description of the results of any test and/or evaluation for the presence of non-storm water discharges;
3. The evaluation criteria or test method used;
4. The date of testing and/or evaluation; and
5. The on-site drainage points that were directly observed during the test and/or evaluation.

EPA Non-Point Source Guidelines, Chapter 5, Section C

This management measure minimizes entry of potentially harmful liquid materials into marina and surface waters through proper storage and disposal.

Build curbs, berms, or other barriers around areas used for the storage of liquid material to contain spills. Store materials in areas impervious to the type of material stored.

To contain spills, curbs or berms should be installed around areas where liquid material is stored. The berms or curbs should be capable of containing 10 percent of the liquid stored or 110 percent of the largest container, whichever is greater. There should not be drains in the floor.

Waste oil includes waste engine oil, transmission fluid, and gear oil. A filter should be drained before disposal by placing the filter in a funnel over the appropriate waste collection container. The containers should be stored on an impermeable surface and covered in a manner that will prevent rainwater from entering the containers. Containers should be clearly marked to prevent mixing of materials with other liquids and to assist in their identification and proper disposal. Waste should be removed from the marina site by someone permitted to handle such waste, and receipts should be retained for inspection.

Care should be taken to avoid combining different types of antifreeze. Standard antifreeze (ethylene glycol, usually identifiable by its blue or greenish color) should be recycled. If recycling is not available, propylene-glycol-based anti-freeze should be used because it is less toxic when introduced to the environment. Propylene glycol is often a pinkish hue (Gannon, 1990). Many States, including Maryland, Washington, and Oregon, have developed programs to encourage the proper disposal of used antifreeze.

Direct marina patrons as to the proper disposal of all liquids using signs, mailings, and other means.

If individuals within a marina collect, contain, and dispose of their own liquid waste, signs and education programs should direct them to proper recycling and disposal options.

EPA Non-Point Source Guidelines, Chapter 5, Section G

This management measure is being applied by States, to new and expanding marinas in areas where adequate marine sewage collection facilities do not exist. Marinas that do not provide services for vessels that have marine sanitation devices (MSDs) do not need to have pump-outs, although dump stations for portable toilets and restrooms should be available.

Two of the most important factors in successfully preventing sewage discharge are (1) providing "adequate and reasonably available" pump-out facilities and (2) conducting a comprehensive boater education program.

Interpretive and instructional signs placed at marinas and boat-launching sites are a key method of disseminating information to the boating public.

Appropriate signage to direct boaters to the nearest pump-out facility to alert boaters to its presence would very likely stimulate increased use of pump-out facilities.

Appendix C
Copy of Notice of Intent (NOI)