

Best Management Practices

The Boatyard General Permit for the State of Washington (Ecology, December 2005) requires the implementation of Best Management Practices (BMPs) to meet the following stormwater requirements:

- No discharge of oil;
- No discharge of floatables;
- No change in receiving water turbidity or color;
- No discharge of process water;
- Oil and Grease concentration in stormwater less than the benchmark of 6.0 mg/L;
- Total Suspended Solids (TSS) concentration in stormwater less than the benchmark of 21 mg/L; and
- Total Recoverable Copper concentration in stormwater less than the effluent limitation or benchmark as specified in the permit according to the receiving water classification.

The following mandatory BMPs are required to be followed at CSR Marine. These BMPs are described in this handout which is provided to all boatyard employees and contractors. The handout is also posted conspicuously within the work areas.

Use of Vacuum Sander

A vacuum sander or rotary tool meeting minimum performance standards shall be used for all paint removal where a sander is appropriate. Non-vacuum grinders are restricted and clearance from the office must be obtained before using non-vacuum grinders. The standards for vacuum sanders are:

- 98% dust extraction
- Suitable for lead abatement work
- Electric or air powered.
- The vacuum must have a static water lift of 60 inches minimum
- Air flow of 116 cufs minimum
- Power of 900 watts
- Filter of 1 micron.

In-Water Vessel Maintenance and Repair

Cleaning, repair, modifications, surface preparation or coating of any portion of a vessel's hull while the vessel is afloat is prohibited. If this work is necessary, then the vessel shall be hauled out to the upland portion of the facility.

Repairs, modifications, surface preparation, or coating of topside or superstructure shall be limited to 25% of the topside or superstructure surface where the deck composes one collection surface. When stripping, sanding, scraping, painting, coating and/or varnishing any deck or superstructure of a vessel in-water, all particles, oils, grits, dusts, flakes, chips, drips, sediments,

debris and other solids shall be collected and managed to prevent their release into the environment and entry into waters of the state.

Drop cloths, tarpaulins, drapes, shrouding or other protective devices shall be securely fastened between various portions of the vessel or between the vessel and the dock, pier, boathouse, bulkhead or shoreline to collect all such materials. No work shall be done from a float or another boat. The cleanup of all collected materials shall be conducted daily to prevent their release into the environment and entry into waters of the state.

Upland Vessel Maintenance and Repair

When stripping, sanding, scraping, painting, coating and/or varnishing any portion of a vessel, all particles, oils, grits, dusts, flakes, chips, drips, sediments, debris and other solids shall be collected and managed to prevent their release into the environment and entry into waters of the state.

Drop cloths, tarpaulins, structures, drapes, shrouding or other protective devices shall be secured around the vessel, as necessary, to collect all such materials. The cleanup of all collected materials shall be routinely undertaken but not less than daily, to prevent their release into the environment and entry into waters of the state.

Solids Management

All particles, oils, grits, dusts, flakes, chips, drips, sediments, debris and other solids from work, service and storage areas of the boatyard shall be collected to prevent their release into the environment and entry into waters of the state. The minimum collection frequency is once per day when solids-generating activity is occurring. Solids shall be kept as dry as possible during collection and shall not be washed into any surface water or into a stormwater collection system.

Paint and Solvent Use

Paints and solvents shall be used in such a manner as to prevent their release into the environment and entry into waters of the state. Drip pans, drop cloths, tarpaulins or other protective devices shall be used during surface preparation, paint and solvent transfer, paint mixing, and application unless completely enclosed in a building.

Painting of the hull surface over water is prohibited except for minor touch up, such as the vessel numbers, with non-metallic paints. When painting decks or superstructure, paint cans shall be placed in a drip pan on top of a drop cloth or tarpaulin. Paints and solvents shall only be mixed at secure locations onshore or on board a vessel.

Paints containing tributyltin are prohibited from use on any vessel less than 25 meters in length (82 feet) except as applied by a licensed applicator for the painting of aluminum hulls of a vessel that is less than 25 meters in length, and for the painting of outboard motors and outdrives of vessels less than 25 meters in length.

Only persons with a current Washington State Department of Agriculture pesticide applicator's license may purchase, handle and apply tributyltin.

Oils and Bilge Water Management

Hydraulic fluids, oily wastes and petroleum products shall not be discharged to waters of the state. Bilge water discharges shall not cause any visible sheen in waters of the state.

Bilge waters shall not be discharged to waters of the state or if solvents, detergents, emulsifying agents or dispersants have been added to the bilge. If a vessel is moved prior to pumping out the bilge, absorbent pads shall be used to prevent the accidental discharge of oils to waters of the state. At no time will bilges be discharged while in the yard. If bilge water removal is required one of the following contractors can be engaged to remove the waste.

Marine Vacuum Service Inc. (206) 762-0240

Drip pans or other containment devices shall be used during all petroleum product transfer operations to catch incidental leaks and spills. Absorbent pads and/or booms shall be available during petroleum transfer operations occurring over water.

Sacrificial Anode (Zincs) Management

Zincs used as sacrificial anodes shall not be disposed of into waters of the state. Spent zincs shall be turned into the office for proper disposal.

Zebra Mussel Control

All boats received by the yard from out of state must be inspected for an infestation by Zebra Mussels. These bi-valves are a voracious marine animal that will quickly wipe out native species. It is therefore critical that all boats from out of state be inspected for these animals. If Zebra mussels are found the boat must be quarantined and the Officer Eric Anderson, Aquatic Foreign Species Control Officer, for the Department of Fish and Wildlife must be notified. Officer Anderson can be contacted at (360) 918-3868 cell, (360) 902-2724 office.

Chemical Management

Solid chemical products, chemical solutions, paints, oils, solvents, acids, caustic solutions and waste materials, including used batteries and lead and copper waste, shall be stored under cover on an impervious surface. Check with the office for proper disposal locations.

All chemical liquids and fluids shall be stored on a durable impervious bermed surface capable of containing 10% of the total tank and container volume or 110% of the largest tank or container volume, whichever is greater.

Sewage and Gray Water Discharges

Owners of vessels moored for repair or under repair at CSR Marine shall not discharge sewage (including discharges from the vessel's galley) into waters of the state. Sanitary waste discharges shall be to either the sanitary sewer or into a holding tank. Discharge of black and gray water is prohibited in the yard. Below is an available contractor who will dispose of sanitary waste water, waste fuel and bilge slops if it becomes necessary.

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Good Housekeeping

The following good housekeeping activities are mandatory at CSR Marine:

- Clean regularly all accessible work, service and storage areas to remove debris, and any other potential stormwater pollutants.
- Promptly contain and clean up solid and liquid pollutant leaks and spills including oils, solvents, fuels, and dust from operations on any soil, vegetation, or paved area exposed to stormwater.
- Sweep paved areas regularly as needed, but not less than daily, to collect and dispose of dust and debris that could contaminate stormwater. Do not hose down pollutants from any area to the ground, storm drain, conveyance ditch, or receiving water.
- Collect spent abrasives regularly and place in covered trash cans provided throughout the yard.
- Dispose of greasy rags, oil filters, air filters, batteries, spent coolant, and degreasers properly.
- Contract for sanitary sewage disposal by commercial mobile pump-out facilities or other appropriate onshore facilities if disposal is required..
- Spray painting, blasting or sanding activities over open water are prohibited.
- Do not dump or pour waste materials down floor drains, sinks, or outdoor storm drain inlets.
- Immediately clean up any spillage on dock, boat or boat deck areas and dispose of the wastes properly.
- Consider recycling paint, paint thinner, solvents, used oils, oil filters, pressure and any other recyclable materials.
- Perform paint and solvent mixing, fuel mixing, etc. on shore.
- Use solid absorbents, e.g., clay and peat absorbents and rags for cleanup of liquid spills/leaks, where practicable.

- Spray painting is prohibited in the yard.
- Use fixed platforms with appropriate plastic or tarpaulin barriers as work surfaces and for containment when work is performed on a vessel in the water to prevent material or paint overspray from contacting stormwater or the receiving water. Use of such platforms will be kept to a minimum and at no time be used for extensive repair or construction (anything in excess of 25% of the surface area of the vessel above the waterline).
- Use plastic or tarpaulin barriers beneath the hull to contain and collect waste and spent materials. Clean and sweep regularly but not less than daily to remove debris.
- Enclose, cover, or contain sanding activities to the maximum extent practicable to prevent abrasives, dust, and paint chips, from reaching storm sewers or receiving water. Use plywood and/or plastic sheeting to cover open areas between decks when sanding (scuppers, railings, freeing ports, ladders, and doorways).

Spill Prevention and Reporting and Emergency Cleanup

- Stop, contain, and clean up all spills immediately upon discovery. Do not flush absorbent materials or other spill cleanup materials to a storm drain or to surface water. Collect the contaminated absorbent material as a solid and place in appropriate disposal containers.
- Notify the office at once if you have a spill.