

Many BMPs and fact sheets are available on the Internet.

- ◀ **BMPs for Marinas and Small Boatyards in BC** - Environment Canada, 1995
- ◀ **BMPs for the Ship and Boat Building and Repair Industry in BC** - Environment Canada, 1995
- ◀ **Clean Harbour Initiatives** - Fisheries and Oceans Canada, Small Craft Harbours
- ◀ **Clean Marinas Clear Value** - US EPA, 1996

These organizations may also provide on-line resources:

- ◀ BC Ministry of Water, Land and Air Protection - Environmental Management Branch and Non-point Source Pollution
- ◀ Washington State Department of Ecology - Boatyard Permits
- ◀ US EPA - Polluted Runoff
- ◀ Local or regional governments on stormwater and waste disposal

Links to these and other resources are available at:

www.pyr.ec.gc.ca/boatyards

Samples of wash water from the pressure washing of boat hulls have been tested and were found to **kill fish even when diluted over 100 times!**

Boatyards are expected to capture their wash water and antifouling paint residues, and **prevent these deleterious substances from entering into the aquatic environment.**



Paint chips and residue not properly contained may flow into fish bearing waters, resulting in a violation of the Fisheries Act.

“... no person shall deposit or permit the deposit of a deleterious substance of any type in water frequented by fish or in any place under any conditions where the deleterious substance may enter any such water. ... “
Fisheries Act, ss.36(3)



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Don't Foul Things Up!



Information for Boatyards

This information is provided as a convenience. Guidelines and BMPs do not affect the application of legislation. Please consult the Fisheries Act for complete legal details of the Pollution Prevention provisions.

The federal Fisheries Act and Hull Maintenance BMPs

Issue

Wastes generated during hull preparation (washing, scraping, sanding and blasting) **contain residues of antifouling paint that are harmful to aquatic organisms.** Despite this risk to the environment, many facilities have not implemented suitable practices to contain these wastes. These wastes must not enter the aquatic environment.



Lack of proper containment during antifouling paint removal can result in deleterious substances being released into the aquatic environment.

Goals

Environment Canada is responsible for enforcing the Pollution Prevention provisions of the *Fisheries Act*. The goals of this brochure are to promote the protection of water quality by fostering **Best Management Practices (BMPs) at boatyards**, and to enable the enforcement of the *Fisheries Act* in a fair, predictable and consistent manner.

Deleterious Substances

Antifouling paints and their residues contain heavy metals, such as copper, that are **toxic to aquatic organisms**, including salmon and shellfish. Wash water and solid residues from the washing, scraping, sanding and blasting of antifouling paints from boat hulls are **“deleterious substances”** under the *Fisheries Act*. **Releasing these wastes to fish bearing waters is a violation of the Act.**

Antifouling Paints



ENVIRONMENTAL HAZARDS

Toxic to aquatic organisms. Do not contaminate water. Do not apply directly to water by cleaning equipment or disposal of wastes. Do not allow chips or dust generated during paint removal to enter water.

Potential Penalties under the Fisheries Act

... no person shall deposit or permit the deposit of a deleterious substance of any type in water frequented by fish or in any place under any conditions where the deleterious substance may enter any such water.

(From ss.36(3) of the federal *Fisheries Act* provisions on Pollution Prevention)



... and upon conviction in a court of law, every person who contravenes this provision is guilty of a criminal offence . . . Maximum penalties are a fine up to \$1,000,000 or up to 3 years in prison, or both.

(From ss.40(2) of the federal *Fisheries Act* provisions on Pollution Prevention)

BC's *Environmental Management Act* has similar provisions on waste disposal, as well as regulations on hazardous waste and contaminated sites.

What's New?

Since the **BMPs for Marinas and Small Boatyards in BC** were published by Environment Canada in 1995:

- Paints containing organotins (i.e TBT) have been banned.
- Agencies have tested samples of wash water from pressure washing of boat hulls and these were determined to be deleterious to fish.
- BMPs for bridge painting have been successfully implemented. Similar practices, such as shrouding, can be applied at boatyards.
- Boatyards in Washington State operate under strict permits and are required to contain, treat and monitor their wastes.
- A Canadian shipyard was convicted under the *Fisheries Act* and paid \$95,000 in penalties for releasing to the environment spent abrasives containing antifouling paint chips.



Toxicity testing of wash water.

Liability

Anybody with an opportunity to prevent pollution is potentially responsible under the *Fisheries Act*.

This could include: property owners (including agents and directors), facility managers and employees, vessel owners and contractors.

Best Practices

The BMPs are not new, and should be implemented in order to protect the environment:

Keep your site clean so that no wastes enter the aquatic environment. Use shrouding, tarps and drop cloths to capture paint scrapings and sanding residues.

Contain and treat your wash water. Do not let wash water from pressure washing a boat hull enter the aquatic environment.

Do not perform hull maintenance on tidal grids or in any area without containment.

In-water hull washing must not release antifouling paint. Discoloured water is an indication that paint is being released.

Train, educate and supervise your staff, contractors and clients.

