

## Vessel cleaning (including in-water hull cleaning)

Issued December 2010

*EPA 927/10: This information sheet is part of a series on environmental management practices for vessel and facility management on marine and inland waters. The information is extracted from the code of practice published in 2008.*

### Introduction

The wash-down water produced when cleaning vessels may contain chemicals such as chlorine, copper, zinc, phosphates, ammonia, biofouling, fish waste, paint chips and introduced or invasive pest species. All of these have detrimental and accumulative impacts on water quality. Biofouling occurs when marine life, such as algae or barnacles, attaches to any surface, including hulls, anchors or fishing gear. Once attached, pests can be moved into and around Australia.

### Who this applies to

- vessel operators
- slipway operators
- marina operators
- boat yard operators
- boat ramp operators
- boat and yacht club operators
- contractors

### Operators must (required outcomes)

- 1 not perform in-water hull cleaning, that results in the removal of applied surface coating material (eg antifoulant), unless under extraordinary circumstances, when written approval by the EPA has been provided
- 2 remove vessel from water for hull and deck cleaning and make use of purpose-built slipways or wash bays with waste containment and wastewater controls

OR

if vessel is afloat during deck cleaning, undertake measures to avoid the discharge of wash-down water that reflect the risk of environmental harm from the activity being performed (refer to 'recommended practices' for options).

### Operators should (recommended practices)

- 3 dry dock the vessel wherever practical
- 4 apply a marine wax to the outside of the vessel and a protective film on glass windows. This creates a beading effect, reducing dirt and salt build-up making it easier to clean

- 5 use soft brushes, sponges or towels to remove minor build-up of slime on hull
- 6 remove biofouling, using approved means, from the vessel before travelling to another location
- 7 rinse trailered vessels with freshwater after each trip, ensuring that the wastewater runoff does not re-enter the marine environment, and inspect the vessel for attached organisms. Remove any that are found and dispose of to a bin for landfill. Do not return organisms to water
- 8 clean and check anchor, fishing gear and seawater cooling systems on vessels as some marine pests can survive in the internal plumbing of vessels and can be translocated
- 9 report biofouling that has not been sighted before
- 10 ensure vessel engine is running smoothly. This reduces the amount of unburnt carbon in the exhaust that can accumulate on the deck and hull, requiring more cleaning
- 11 wash or rinse outboard motors in an area where the runoff drains to a pit and can be treated, reused or disposed of to sewer
- 12 install oil/grease separation or filtration devices in sumps where vessel wash-down waters are collected (eg boat ramp cleaning facilities)
- 13 Sweep and collect material from surfaces prior to rinsing
- 14 rinse vessel decks and exteriors with water only
- 15 check product labels and use low nitrogen and phosphorus detergents for onboard cleaning
- 16 use high-pressure water instead of chemicals to remove grime
- 17 use a mop and bucket or spill control equipment (absorbent sausages) to control wash-down water containing cleaning chemicals
- 18 dispose of wash-down water in bucket to sewer/septic systems or landscaped areas
- 19 mix the minimum amount of detergent required in a bucket to remove grime. Do not apply detergents directly onto brushes or the vessel
- 20 not use detergents where they can directly enter water, such as on the scum lines of the hull. Use warm water and/or rags or a brush instead
- 21 use warm instead of cold water as this leads to greater cleaning efficiency
- 22 when cleaning, use a soft sponge or cloth. Pigmented (coloured) wastewater indicates that too much force is being used and that antifouling is being lost
- 23 ensure compliance with water use restrictions. Attach a trigger nozzle to the hose so it can be turned off when not in use.

## **Record keeping**

Report cards could be used to record information that act as a measure of accountability for having conducted a maintenance operation in an environmentally responsible manner. Having this type of record would be advantageous if ever there came a time where a maintenance operation was investigated for potentially causing environmental harm.

## **Hull cleaning**

Hull cleaning aims to ensure boats maintain their hull speed, fuel efficiency and appearance. Diver cleaning, using manual or power tools, is the most common form of in-water hull cleaning. Scrubbing hulls coated in antifouling paints releases toxic metals and possible pest species, which may contaminate the water and bottom sediment. By performing this task in the water there is little opportunity to recover and contain these toxic pollutants.

Removing biofoulants from the vessel before travelling to another location is very important to avoid the translocation of marine pest species; as such regular hull cleaning is advised. However, the EPA strongly discourages in-water hull cleaning and recommends that slipways be used and the wastewater and solids captured for land-based disposal.

Under certain circumstances, soft cloth cleaning of racing yachts, to remove minor build-up of slime and dirt, may be acceptable.

## Marine pests

It is estimated that more than 250 exotic marine species have been introduced into Australian waters, although not all have become pests. Some that have invaded include broccoli weed (NSW, Tas, Vic), the Asian mussel (Tas, Vic, WA), the black-striped mussel (eradicated from NT), the Caribbean tubeworm (Qld), the giant fan worm (NSW, SA, Tas, Vic and WA) and the northern Pacific seastar (Tas and Vic). Marine pests can be very costly to eradicate. They often spread rapidly and may prey on, or compete with and displace native species.

## References

EPA, *EPA Guideline: Bunding and spill management*, [www.epa.sa.gov.au/xstd\\_files/Waste/Guideline/guide\\_bunding.pdf](http://www.epa.sa.gov.au/xstd_files/Waste/Guideline/guide_bunding.pdf).

EPA, *Stormwater Management: Wash bays*, [www.epa.sa.gov.au/xstd\\_files/Water/Information%20sheet/water\\_wash.pdf](http://www.epa.sa.gov.au/xstd_files/Water/Information%20sheet/water_wash.pdf).

EPA, *Stormwater management: Disposal of soaps and detergents*,  
[www.epa.sa.gov.au/xstd\\_files/Waste/Information%20sheet/soaps\\_detergents.pdf](http://www.epa.sa.gov.au/xstd_files/Waste/Information%20sheet/soaps_detergents.pdf).

EPA, *Code of practice for vessel and facility management (marine and inland waters)*,  
[www.epa.sa.gov.au/xstd\\_files/Water/Code%20of%20practice/vessels.pdf](http://www.epa.sa.gov.au/xstd_files/Water/Code%20of%20practice/vessels.pdf).

## Useful websites

EPA Vessel and facility management pages, [www.epa.sa.gov.au/vfm](http://www.epa.sa.gov.au/vfm).

## Disclaimer

This publication is a guide only and does not necessarily provide adequate information in relation to every situation. This publication seeks to explain your possible obligations in a helpful and accessible way. In doing so, however, some detail may not be captured. It is important, therefore, that you seek information from the EPA itself regarding your possible obligations and, where appropriate, that you seek your own legal advice.

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## Further information

### *Legislation*

Legislation may be viewed at: <[www.legislation.sa.gov.au](http://www.legislation.sa.gov.au)>

Copies of legislation are available for purchase from:

Service SA Government Legislation Outlet  
Adelaide Service SA Centre  
108 North Terrace  
Adelaide SA 5000

Telephone: 13 23 24  
Facsimile: (08) 8204 1909  
Website: <[shop.service.sa.gov.au](http://shop.service.sa.gov.au)>

***For general information please contact:***

Environment Protection Authority  
GPO Box 2607  
Adelaide SA 5001

Telephone: (08) 8204 2004  
Facsimile: (08) 8124 4670  
Freecall (country): 1800 623 445  
Website: <[www.epa.sa.gov.au](http://www.epa.sa.gov.au)>  
Email: <[epainfo@epa.sa.gov.au](mailto:epainfo@epa.sa.gov.au)>

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