Are these records kept?

- ☐ Integrity test results
- ☐ Documentation of maintenance and repairs on fuel facilities
- ☐ Leak detection data
- ☐ Details of groundwater monitoring
- ☐ Audit reports
- ☐ Details and certification of the design and installation of new tanks and lines
- ☐ Documentation of tank removal – validation report and remediation

Ongoing management

- ☐ Is there an environmental management plan for the marina operations at the site?
- ☐ Does the environmental management plan address fuel infrastructure maintenance, notification processes, contingency planning, regular compliance auditing, and record keeping?

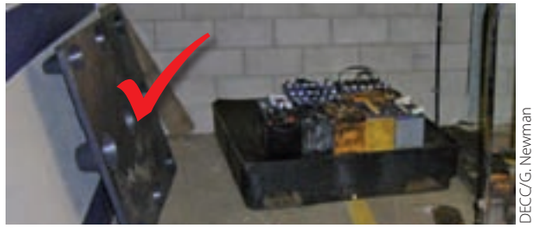
Department of Environment and Climate Change NSW
59–61 Goulburn Street, Sydney
PO Box A290, Sydney South 1232
Phone: 131555 (NSW only – publication and information requests)
(02) 9995 5000 (switchboard)
Fax: (02) 9995 5999
TTY: (02) 9211 4723
Email: info@environment.nsw.gov.au
Website: www.environment.nsw.gov.au

Audit chemicals regularly.

DECC/G. Newman

Chemical storage area

Store chemicals, batteries and parts containing oil in bunded containers in covered areas on sealed surfaces.



DECC/G. Newman

Batteries stored on a bunded platform

DECC/G. Newman

Leaking oil from machinery

Appropriately dispose of or recycle chemicals no longer required, batteries, scrap metal, water from washing mechanical parts, and used batteries.

- Ensure fuel dispensing and tank filling is supervised by trained personnel.
- Report all leaks to the appropriate regulatory authority.
- Concreting slipways, fitting slipways with an effective drain and collection system, and use of containment devices such as floating booms reduce the potential for contamination from spills and leaks.

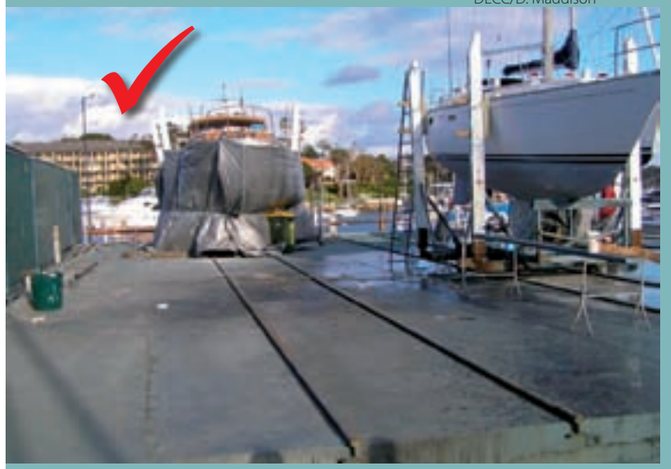
For further advice on ways to avoid land contamination on marina sites contact the Department of Environment and Climate Change NSW (DECC), **upssreg@environment.nsw.gov.au**, or your local council.

Information on marina management can be obtained from DECC or the DECC publications:

- *Environmental Action for Marinas, Boatsheds and Slipways*
- *Best Management Practice for Marinas and Slipways*.

This guide provides information relevant at the time of publication. It is not a regulatory document and does not provide legal advice. For information regarding legal obligations, consult a lawyer, the legislation, DECC or your local council.

DECC/D. Maddison



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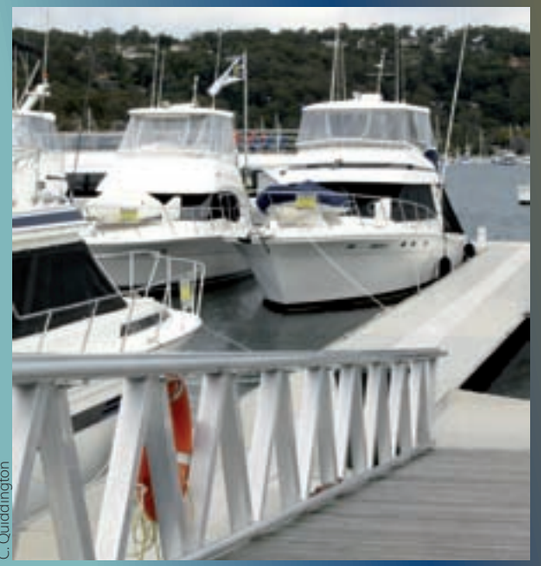
Contaminated sites

Prevention of contamination on marina sites



C. Quiddington

Contamination depreciates property values, harms the environment, is costly to remediate and interferes with business operation.

Department of **Environment & Climate Change** NSW

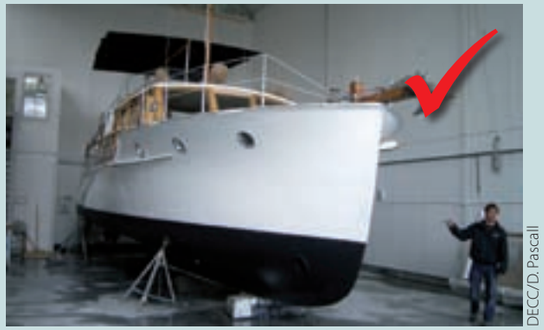
Prevent soil, sediment, groundwater and surface water contamination at vessel repair operations and marinas with good environmental practices and controls.

Oils, scrap metal, paints and abrasive blasting waste from shipbuilding and repairs can cause contamination of soil, sediment and waters (surface water and groundwater).

DECC/G. Newman

Work carried out on a sealed surface in covered area

- Carry out spray painting and abrasive blasting in enclosed areas on sealed hardstands.
- Dispose of excess scrap metal appropriately.
- Use inert materials (i.e. not copper slag) for abrasive blasting.
- Operate dust extraction systems for all dust-generating work .
- Ensure work areas drain inward to a collection system and not to stormwater or other areas of the site.
- Use sealed hardstands for mechanical work, antifouling, shipbuilding and repairs.



DECC/D. Pascall

Ship repair on a sealed surface in covered area

Establish appropriate infrastructure and work practices where fuel/waste oil is stored or dispensed.

- Use non-corrodible tanks and lines with secondary containment.
- Ensure bowsers are bunded if possible, with a sump beneath the bowser.
- Install a leak detection system which may comprise inventory control and reconciliation, such as statistical inventory reconciliation analysis, and/or interstitial monitoring where possible with double walled pipes and tanks.
- Carry out manufacturers' recommended tank and pipe integrity tests at recommended intervals.
- Provide a master valve for emergency fuel cutoff.
- Install groundwater monitoring wells and test groundwater regularly.
- Appropriately decommission and remove underground storage tanks which are no longer in use.

Undertake environmental management planning which addresses, as a minimum:

- the monitoring and maintenance of fuel and waste oil tanks and lines
- notification processes and contingency plans for leaks and spills
- compliance audits and record keeping.

Keep records, including:

- integrity test results
- documentation of maintenance and repairs
- leak detection data (such as regular or daily tank dipping results for inventory control)
- details of groundwater monitoring
- audit reports
- details and certification of the design and installation of new tanks and lines
- documentation of tank removal – validation, remediation and method of decommissioning.

DECC/D. Maddison

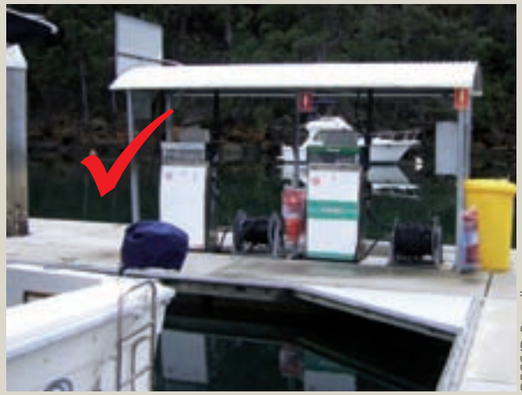
Emergency fuel cut-off switch.

DECC/D. Pascall

Sump beneath a fuel bowser.

DECC/D. Pascall

Drums stored on an unsealed surface



DECC/D. Pascall

Fuel storage area

Checklist for prevention of contamination

General

- ☐ Is all shipbuilding, painting, antifouling, sanding and boat repairing undertaken indoors and on hardstand?
- ☐ Does the workshop floor drain inward?
- ☐ Are all gaps between the walls and the floor sealed and bunded?
- ☐ Is abrasive blasting material inert (i.e. not copper slag)?
- ☐ Is staining visible on the ground surface?
- ☐ Are parts containing oil stored in covered and sealed areas?
- ☐ Are parts containing oil transferred in secure and bunded containers?

Fuel and waste oil storage and dispensing

- ☐ Are tanks and lines non-corrodible?
- ☐ Do tanks and lines have secondary containment?
- ☐ Are bowsers bunded?
- ☐ Is there a sump beneath each bowser?
- ☐ Has a leak detection system been installed?
- ☐ Are tank and pipe integrity tests undertaken at the recommended intervals?
- ☐ Is there a master valve for emergency fuel cutoff?
- ☐ Is boat refuelling supervised by trained personnel?
- ☐ Have groundwater monitoring wells been installed?
- ☐ Is groundwater regularly tested and results assessed?
- ☐ Are contamination and leaks reported to the appropriate regulatory authority?
- ☐ Have underground storage tanks which are no longer in use been appropriately decommissioned and removed?