

Engine maintenance and repair works

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Introduction

Engine maintenance, cleaning and repair works, if not controlled, can degrade water quality and threaten aquatic life. A large number of small discharges of oily waste add up to a significant problem. Oily waste contains polycyclic aromatic hydrocarbons (PAHs), which are carcinogens. Battery components contain lead and sulphuric acid, which are toxic and corrosive. Degreasers used to clean metal usually contain volatile organic compounds (VOCs) that will pollute air and may pose a fire hazard. If solvents enter waterways, even in small quantities, they may render the water unfit for human consumption and result in the death of aquatic species.

Who this applies to

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

Operators must (required outcomes)

- 1 perform engine maintenance, cleaning and repair works in a designated roofed and bunded area with wastewater management controls
OR
undertake measures to control oils, oily water, solvents, degreasers, coolants, lubricants, fuels and greases from mechanical works that reflect the risk of environmental harm from the activity being performed (refer to recommended practices for options).

Operators should (recommended practices):

- 2 use engines with low emission ratings and have them serviced regularly
- 3 use a drip tray or similar under the engine to collect oil, grease, solvent or detergent
- 4 use a fuel stabiliser to protect engines from corrosion and sludge formation
- 5 clean engine parts with a brush or rag, rather than with solvent or aqueous degreasers such as alkaline or caustic soda
- 6 use a self-contained parts washer that is regularly maintained and ensure wastes are disposed of to a waste transporter

- 7 use water-based, non-VOC cleaners
- 8 never discard degreasing solvents in sinks, floor drains or onto soil
- 9 collect all waste oil for recycling and store in a roofed and bunded area
- 10 not use waste oil for dust suppression
- 11 not mix waste oil and grease with oily water (eg bilges), coolant or solvents
- 12 drain and crush oil filters for recycling
- 13 recycle rags contaminated with hydrocarbons with an industrial laundry service. Store rags contaminated with oil separately from rags contaminated with other hazardous substances such as solvents
- 14 collect all batteries for recycling
- 15 store all batteries in a roofed and bunded area
- 16 segregate waste batteries from flammable materials, such as paper, rags, garbage and scrap metal, with a physical barrier
- 17 store waste batteries upright and stack in layers separated with wood
- 18 inspect waste battery storage area regularly for leaks and case deterioration.

Voluntary Emission Labelling Scheme (VELS)

The Outboard Engine Distributors Association of Australia (OEDA) announced a Voluntary Emission Labelling Scheme (VELS) that came into effect on 1 January 2007. The voluntary code would be based on international emission regulations and is supported by the major outboard distributors including BRP, Honda, Mercury, Suzuki, Tohatsu and Yamaha.

Under the code, engines would have permanent, recognisable external labels that would identify the emission rating of the product. The star rating system will be as follows:

- 0 star (high emission)—generally two-stroke engines
- 1 star (low emission)—many two-stroke engines
- 2 star (very low emission)—some two-stroke direct injection and four-stroke engines
- 3 star (ultra low emission)—most two-stroke direct injection and four-stroke engines
- 4 star (super ultra low emission)—for future technologies

Low emission engines reduce air pollution, use less fuel and oil, produce less noise and smell, and have better resale value than higher emission engines. As well as investing in the most suitable technology when buying a new engine, the boating public could help the environment by ensuring boats and engines are kept in peak operating condition and being careful to avoid fuel spills.

References

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.

EPA, *EPA Guideline: Bunding and spill management*, www.epa.sa.gov.au/xstd_files/Waste/Guideline/guide_bunding.pdf.

EPA, *EPA Guideline: Disposal of used hydrocarbon absorbent materials*, www.epa.sa.gov.au/xstd_files/Waste/Guideline/guide_hydrocarbon.pdf.

EPA, *Stormwater Management: Wash bays*, www.epa.sa.gov.au/xstd_files/Water/Information%20sheet/water_wash.pdf.

SafeWork SA, *SafeWork SA Safeguards: GS 70 Lead/Acid Batteries and Battery Charging*,
www.safework.sa.gov.au/uploaded_files/gS70i.pdf.

SafeWork SA, *SafeWork SA Safeguards: GS 6 Degreasing Equipment*,
www.safework.sa.gov.au/uploaded_files/gS6i.pdf.

Useful websites

EPA Vessel and facility management pages, 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.

Further information

Legislation

Legislation may be viewed at: <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>

For general information please contact:

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