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Pollution reduction

For more technical information

The requirements in this chapter have been informed by, and may refer to, the following technical references, codes and regulations. If you are building, fitting-out or making substantial changes to a vessel, we strongly recommend you refer to, and take account of, the codes and standards below:

- **BS EN ISO 8099:2001 'Small Craft. Toilet waste retention systems'**

Pollution reduction

Our waterway environments are important to all boaters, visitors and the wider community. Good water quality is vital to the safety and enjoyment of people, animals and wildlife, in and around rivers, lakes and canals.

Pollution can harm a waterway's environment, cause health problems for people affected and, whilst pollution incidents are being controlled, restrict or stop people from navigating in the vicinity.

Most navigation authorities have duties to safeguard the environment.

These requirements address the potential for boats and their use to cause water pollution.

Boats obliged to meet BSS requirements must comply with the following:

30 Any leakage of oil from engine equipment must be contained and prevented from being avoidably discharged overboard.

31 Bilge pumping and toilet systems must be designed, installed and maintained in a way that minimises the risk of avoidable pollution.

There are more ways to protect the quality of navigable waters

The Green Blue is an environmental initiative specifically for boat users promoted by the Royal Yachting Association and the British Marine Federation. The Green Blue offers a lot of practical information about the environmental impacts of boating, and how to minimise them. It will answer questions such as what to do in the case of a small fuel spillage and what detergents to use on board, as well as encourages boat users to think about 'how green is my boating'? To find out more, go to www.thegreenblue.org.uk

Oil

9.1 Engine/gearbox oil leak collection

In general, it is better to maintain engines so that they do not leak oil and fuel. However, any leaks and drips which do develop, must be contained and prevented from running into other sections of the boat (this may also pose a fire hazard from unseen accumulation), or overboard causing waterway pollution.

Even regularly maintained engine and gearbox installations can leak.

When oil leaks from your engine(s) or gearbox(es), oil or oil soaked debris can build up within the engine space and become a fire hazard as well as increase the risk of pollution linked to emptying the bilges.

9.1.1/R REQUIREMENT

Will all oil leaks from the engine/s or gearbox(es) be collected in an engine tray or oil-tight area?

Check for the presence and condition of an engine tray or oil-tight area under all fixed internal combustion engines and gearboxes.

Estimate the volume of any engine tray and the capacity of the protected engine and gearbox.

All fixed internal combustion engine and gearbox installations must have an engine tray or oil-tight area.

Each engine tray or oil-tight area must be at least as long and as wide as the combined length/width of the engine and gearbox.

The material of each engine tray or oil-tight area must be non-porous and oil resistant.

All engine trays or oil-tight areas, including joints and seams, must be free of signs of leaks, damage and deterioration.

The volume of each engine tray or oil-tight area must be sufficient to retain the estimated capacity of the engine/gearbox sumps.

Note – Oil-tight areas must collect from within the engine/gearbox space and must not extend into other parts of the vessel.

If you cannot introduce an oil-tight area or you have fixed bilge pumps that will draw from an area with the potential for oil to mix with water, you must prevent the avoidable discharge of oily water into the waterway. We outline two acceptable routes for fixed bilge pumps.

9.1.2/R REQUIREMENT

Does the bilge pumping system minimise the risk of avoidable pollution?

Check for presence of a fixed bilge pump or fixed bilge suction pipe within an engine tray or oil-tight area.

If present, check for the presence of a bilge water filter installed in the overboard discharge line or the facility to discharge to a holding tank.

If a bilge water filter is present, verify the discharge level performance by examining any markings on the filter. If necessary, have an appropriate declaration from the manufacturer or supplier available.

Fixed bilge pumps and bilge suction pipes must not draw from an engine tray or oil-tight area, unless the:

- discharge is through a bilge water filter capable of a 5 parts per million discharge performance level, as verified by markings on the filter or an appropriate declaration from the manufacturer or supplier; or,
- discharge line is connected to a holding tank.

Notes – Portable bilge pumps or bilge suction pipes should not be used within an engine tray or oil-tight area. Discovery during a BSS examination of such usage will prompt advice.

Where the discharge performance level of a bilge water filter cannot be verified, the filter will be considered as non-compliant until the performance level is verifiable. You will need to provide manufacturer's or supplier's supporting paperwork on request.

If a significant quantity of fuel is found to be escaping, a warning notice will be issued and the navigation or harbour authority informed.

Best practice

Check regularly for signs of oil outside the oil-tight area. If found and there is no pump-out protection, please check the arrangements to keep the general bilge area oil-tight. If they are not effective, the boat does not comply with the Requirements.

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Information:
If large quantities of fuel or other substances escape into a waterway you should contact the Environment Agency or the Scottish Environment Protection Agency Pollution Hotline on 0800 80 70 60 (24hrs).

Sewage

9.2 Sanitation systems

Any sewage discharge into a waterway is offensive and is prohibited by law on most inland waterways. Here we examine the risk of a boat's toilet system creating pollution.

If your boat's toilet system is capable of discharging overboard directly into the waterway, you must guard against this happening.

9.2.1/R REQUIREMENT

Is a valve fitted in the discharge line of any toilet appliance or holding tank with overboard discharge?

Check all toilets and holding tanks for the presence of an overboard discharge line.

If present, check for the presence and condition of a valve installed in the discharge line.

All toilets and holding tanks systems having an overboard discharge line must have a valve fitted in the discharge line.

The valve and connections must be complete and leak-free.

Notes – Diverter valves to holding tanks not capable of being discharged overboard are compliant.

Discharge outlets having a 'tools-to-remove' cap, or overboard discharge lines from holding tanks discharged solely by shore-side pumping arrangements, are both compliant.

If toilet waste is found to be escaping into the watercourse from your boat, your navigation or harbour authority will be informed. If your boat's sanitation arrangements inevitably result in any toilet waste discharging overboard, please contact the BSS Office.

Best practice

Closed toilet-systems help protect our waterways. If you are fitting a holding tank for quayside pump-out, we recommend the system complies with standard BS EN ISO 8099. It is important that the pump-out deck fitting be manufactured precisely in accordance with the dimensions prescribed to ensure an effective connection during pump-out. A further back-up seal can be provided by some deck fittings.

To avoid risk of tank collapse or implosion during pump-out, we also recommend holding tank vent pipes have a minimum 38mm (1½ in) internal diameter.

Information

Owners of boats based in, or visiting, an inland waterway are advised to check with the relevant navigation authority concerning any restriction in place in respect of sea toilets capable of discharging directly overboard. Examiners are not required to render sea toilets inoperable. However, some navigation authorities require owners to inform them of the presence of sea toilets.