

SENNOCKE Client update

Bundling of Oil Storage Tanks (new Legal requirements from March 2002)

Problems caused by Oil Pollution

The storage of oil is carried out on thousands of industrial and commercial sites throughout the country. Every year there are hundreds of incidents arising from inadequate storage, poor practice, vandalism and theft. Many of these result in pollution of water courses, drains, sewers or the land.

The Environment Agency has updated its guidance on this subject and new regulations making bunding compulsory in most situations is currently under consideration by the Government.

Oil is responsible for about 25% of all pollution incidents. Pollution, whether accidental or deliberate, is a criminal offence and can kill birds, fish and other wildlife.

Oil spreads rapidly over the surface of a body of water, killing fish and invertebrates by cutting off oxygen. Only a small amount of oil is necessary to create pollution - a gallon of oil can cover an acre of water.

The Legal Framework

The Control of Pollution (Oil Storage) (England) Regulations came into force on 1st March 2002. The regulations apply to industrial, commercial and institutional sites storing more than **200 litres** of oil and private dwellings storing more than **3500 litres**. The regulations apply to new and modified installations immediately. Existing facilities at significant risk have to comply by 1st September 2003 and all facilities by 1st September 2005.

In addition, the present law has severe penalties for those who cause pollution. Under Section 85 of the Water Resources Act 1991, it is an offence to pollute a water course, whether this is done deliberately or accidentally. Fines of up to £20,000 can be incurred and if there has been major pollution, the fine is unlimited. Therefore it is imperative that oil storage facilities and oil loading/ unloading activities are reviewed and improvements put in place where necessary.

NB: Polluting groundwater by oil spillage is also an offence.

Best Practice: Oil Tanks 22.01.04

The following guidance is aimed at fixed storage areas. The new regulations also apply to mobile bowsters.

Siting - Wherever possible, tanks should be located away from any watercourse or drain. Normally this distance should not be less than 10 metres or 50 metres from a well or borehole. Installations within this distance are regarded as at significant risk.

Labelling - All tanks should be clearly labelled with their content and capacity. The use of HAZCHEM labels on tanks is advised. It is also good practice to erect a notice giving details of safe delivery procedures and actions to be taken in an emergency, including a spillage.

Materials - The tank should be constructed of good quality materials and well maintained. The tank should be sited within an oil-tight bund.

The Bund - The bund itself should consist of a base and surrounding walls constructed and lined with material impervious to the material stored. Pipework should not normally pass through the bund wall.

Outlets - The bund should have no outlet connecting it to a drain, watercourse, sewer, or discharging onto any yard or unmade ground.

Removing Rainwater and Accumulated Vegetation etc - If necessary, any accumulated rainwater etc can be removed by manually baling it from the bund. This water may be contaminated and should be disposed of with care. Any accumulation of vegetation etc. should also be regularly removed.

Bund Capacity - The capacity of a bund must be a minimum of 110% of the total tank volume for single tanks or hydraulically linked tanks.

Where two or more tanks are sited within the same bund, the bund capacity is 110% of the largest tank or 25% of the total capacity of all the tanks, whichever is the larger.

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Construction - Bunds should be of reinforced construction. Specifications are available for construction of bunds using concrete, bricks and blocks (see References).

Pipework - Pipework should be above ground wherever possible and labelled to indicate the contents and direction of flow. If pipework has to be laid underground, it should be placed within a protective sleeve or duct.

Separate fill pipes should be provided for each tank, unless tanks are interconnected by a suitable balance pipe.

Flexible draw off pipes should be fitted with a non-return valve and locked within the bund when not in use. Such equipment should be to BS 3395 (see References).

Vent pipes should be positioned so that they can be seen easily during delivery. They should be sited so that any discharge from them passes into the bund.

Key Action Steps

- ? Review all oil storage facilities, especially tanks, bunds and associated pipework.
- ? Where necessary, upgrade tanks, bunds and pipework to the standards above.
- ? Ensure that inspection of oil storage facilities is part of the routine maintenance schedule.
- ? Ensure that all bunded areas are kept free of vegetation or other rubbish.

References

Environment Agency/Scottish Environment Protection Agency Pollution Prevention Guidelines, PPG 2, revised 11/2001.

Construction of Bunds for Oil Storage Tanks, RP 516, Construction Industry Research and Information Association, London.

Concrete Bunds and Masonry Bunds, Environment Agency, CIRIA.

BS EN 13605 1997- Rubber Hoses and Hose Assemblies for Measured Fuel Dispensing, British Standards Institution, London.

Further Information

The Environment Agency, Bristol Head Office, Tel 01454 624400, or Environment Agency Regional Offices.