

Fact File 39



Fire Industry Association



Environmental Guidance

Foam Fire Extinguisher Disposal

Foam Fire Extinguisher Disposal

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INTRODUCTION

This Fact File is intended to give guidance on the environmental issues relating to foam fire extinguishers and their disposal. It covers the applicable legislation, how to handle the extinguishers at the customer's site, and looks at the available options for collection and disposal.

ENVIRONMENTAL ISSUES

The Groundwater Regulations are designed to prevent dangerous substances from causing direct or indirect pollution to groundwater (used as a source of drinking water).

Fire fighting foams cannot be discharged to groundwater and need to be disposed of safely via foul sewer to a waste water (sewage) treatment plant, or by incineration.

Note: Foam extinguisher concentrates and extinguisher foam charges must NOT be discharged onto car parks, hard standings, grass, waste land, streams, rainwater/storm drains or any other outdoor site.

FOAM EXTINGUISHERS

Annual service

During the annual service, the recommendations in the FIA guide to servicing and/or the manufacturer's instructions should be followed. When the extinguisher is emptied, the foam solution contents (media) should be stored in an appropriate container before returning to the extinguisher. If the media requires replacing, the discarded media should be kept in a container until all the extinguishers have been serviced. If at the end of the service only a few extinguishers (1-5) have been emptied, then it should be possible to dispose of the collected media down the foul water sewage system where it cannot enter groundwater. Steps should be taken to minimise foaming. The media should never be discarded anywhere on-site other than the foul water system. Alternatively, if the collected media is from more than five extinguishers, it should be collected for disposal by the methods described in sections 4 & 5 below.

Five year discharge testing

Discharge testing is now a contentious issue; the run-off from the extinguisher cannot enter the groundwater system. Therefore the previous practice of carrying out the discharge on the customer's site in areas where it could reach the groundwater (eg car parks, grass, verges, ditches, bare soil, rainwater drains or wasteland) is not permitted and could result in legal proceedings by the Environment Agency.

It should be possible to discharge small numbers of extinguishers into the foul water system as described above, under the site owner's 'trade effluent discharge consent'. However, the practicality of discharging extinguishers down toilets needs to be considered' as this may lead to health & safety issues for technicians. Discharging a foam extinguisher on the upper floors of multi-storey building should also be avoided.

Note: Trade effluent is deemed to be all waste that is not 'domestic production', so extinguisher discharges thus fall into this category. Site owners will hold a 'discharge consent' from their local water undertaking for declared discharges. The disposal of trade effluent into the foul sewage system on a customer's site will be covered under their permissions and consent under the Trade Effluents (Prescribed Processes and Substances) Regulations 1989 – if in doubt, the site owner and the water undertaking should be consulted.

HANDLING OF EXTINGUISHERS OFF-SITE/AT SERVICE DEPOT

Collection

Note: To transport any waste you, as a company, are required to hold a waste carriers licence. An item is defined as waste the moment the owner no longer requires or has possession of the item.

When transporting extinguishers from customers' sites you will need to comply with the requirements of the ADR 2009 (see Fact File 23). The ADR states that UN No 1044 fire extinguishers provided with protection against inadvertent discharge and securely packaged in strong outer packaging, are exempt from the ADR requirements. This can mean that the original packages are secured in the van or a secure lockable cage. If you transport extinguishers not secured as described above, you will have to comply and this means your drivers will have to be fully trained and certificated under ADR 2009.

Note: Under the Environmental Protection (Duty of Care) Regulations, duty of care note must be given to the client when you remove waste from their site.

Noting the transport issue above, there are a number of options available for the collection of foam for disposal and the practicality of each should be considered before agreeing a procedure for collecting and disposing of foam.

- Keeping the media in the extinguisher and replacing the old extinguisher with a new extinguisher. The extinguishers are returned to the service depot for safe collection and disposal as a complete unit or the contents emptied into a secure container for storage/disposal.
- Keeping the media in the extinguisher and replacing the old extinguisher with a new extinguisher. The old extinguishers are then left on the customer's site for collection by licensed waste disposal company.
- Collecting the foam in a secure container in the technician's vehicle before transferring to a larger container at the service depot.

Storage

Measures should be taken to ensure that any stored media cannot leak and reach groundwater.

The media should be stored in sealed containers.

DISPOSAL OF FOAM

Foul water sewage system

It is currently permitted to dispose of foams (except PFOS based) via the foul water sewage system (see 3.2 on page 3).

Note: If you are collecting and disposing of the foam media from large numbers of extinguishers over 50L (per previous agreements with the water undertakings) at any one time, you will need to obtain consent to discharge from your local water undertaking.

Whenever you intend to dispose of any media via the foul sewage system, this should be covered by a discharge consent from the local water undertaking for the site where the discharge is taking place.

High temperature incineration

PFOS foams must be disposed of via high temperature incineration.

Recycling of components

Fire extinguisher parts and components should be recycled through registered facilities.

APPLICABLE REGULATIONS

Detailed information on the regulations that apply to foam fire extinguishers are given in Fact File 20, however below is a list of some of the regulations with which you will need to comply:

- The Groundwater Regulations 1998
- Water Resources Act 1991
- Water Industries Act 1991
- Environmental Protection (Duty of Care) Regulations 1991
- Control of pollution (Amendment) Act 1989/ Controlled waste (registration of carriers & seizure of vehicles) Regulations 1991
- The Trade Effluents (Prescribed Processes and Substances) Regulations 1989
- The Environmental Permitting (England and Wales) (Amendment) Regulations 2009 (SI 1799 2009)
- Environmental Permitting (England and Wales) Regulations 2007 (SI 358 2007)

SOURCES OF FURTHER INFORMATION

The following websites provide more information on environmental issues and legislation:

- **Environment Agency**
www.environment-agency.gov.uk/
- **Environment Agency NetRegs**
www.netregs.gov.uk/
- **Envirowise**
www.envirowise.gov.uk/

DISCLAIMER

The information set out in this document is believed to be correct in the light of information currently available but it is not guaranteed and neither the Fire Industry Association nor its officers can accept any responsibility in respect of the contents or any events arising from use of the information contained within this document.



Fire Industry Association

Tudor House, Kingsway Business Park, Oldfield Road, Hampton, Middlesex TW12 2HD
Tel: +44 (0)20 3166 5002 • www.fia.uk.com