

LIF Technical Statement No. 10

The Handling and Disposal of Lamps

**Control of Substances Hazardous to Health (COSHH) Regulations 1994 (SI No 3246)
(As amended) Health and Safety at Work Act 1974.**

**Management of Health & Safety at Work Regulations 1992
Personal Protection Equipment at Work Regulations 1992
Control of Pollution (Amendment) Act 1989
Environmental Protection Act 1990 (duty of Care) incl COPA 1989 Carrier Regs.
Hazardous Waste Regulations 2005
Water Resources Act 1991 wrt to List 1 (Mercury) substances
Waste Electrical and Electronic Equipment (WEEE) directive 2003**

The Control of Substances Hazardous to Health (COSHH) Regulations 1994 place duties on employers to protect employees and other persons who may be exposed to substances hazardous to health, for example: to solids, liquids or gases that may be toxic, harmful, corrosive or irritant. Safety standards, for example, exposure limits of hazardous substances in air, are separately prescribed by the Health and Safety Executive.

Specialists from the main lamp and lighting companies have studied the applicability of the COSHH regulations to their products and this statement sets out their conclusions. Guidance is given on the handling and disposal of lamps containing mercury and/or sodium lamps. Products are considered in both the intact and broken state.

Intact Products

Lamps are finished assemblies without free substances and they comply with separate regulatory requirements that products shall be safe. No special lamp handling precautions under the above regulations are required during storage, installation or use.

Broken Products

Hazardous substances can be released when some lamp types are broken and the following general recommendations are made for dealing with broken lamps. No problems are foreseen with other lighting products.

Accidental breakage of a lamp

In the event of an accidental breakage of a lamp normal good housekeeping is required, care being necessary to prevent injury from broken glass. For fluorescent lamps the generation and inhalation of air borne dust should be avoided when cleaning up; for low-pressure sodium lamps avoid skin and eye contamination with debris and prevent exposure to moisture.

Controlled lamp breakage

When lamps have been removed from service the principal physical hazard is broken glass. Placing them in the packaging provided with the new lamps is one way of protecting them from accidental mechanical breakage or scratching, which could lead to glass fracture and possible flying fragments.

Crushing of lamps is considered by the Environment Agency to be a waste management activity and will require the appropriate permit and compliance with the pertinent health and safety legislation

Disposal of Lamps at End of Life

Discarded lamps may be disposed of through:-

- ◆ Recycling (preferred method) at suitably licensed and contained sites/for fluorescent and other mercury containing lamps, the sites must be registered for acceptance of hazardous waste, or
- ◆ Landfill at suitably licensed and contained sites/for fluorescent and other mercury containing lamps, the sites must be registered for acceptance of hazardous waste, or
- ◆ Recovery of some or all of the components
- ◆ Incineration is not a recommended disposal route. Lamps should be kept intact and use made of specialist companies who will remove intact lamps from premises for recovery or disposal to landfill.

General Legislation Requirements for Lamp Disposal

Firstly fluorescent tubes and other mercury containing discharge lamps together with low and high pressure sodium lamps waste are now classified as hazardous under the Hazardous Waste Regulations 2005. These regulations came into force 16th July 2005 in England and Wales replacing the Special Waste Regulations 1996. Most producers of hazardous waste will need to register with the Environment Agency and make sure that their waste is properly described and consigned to an authorised disposal facility.

A description for the different lamps for separate collection is given below:

<i>Lamp Type</i>	<i>Code for waste stream</i>
Fluorescent tubes and other mercury containing waste	20 01 21
Low pressure sodium lamps	16 02 13
High pressure sodium lamps	16 02 13

For further details see the Environment Agency web site at the link below. Here you will find information, guidance and registration details:

http://www.environment-agency.gov.uk/newruleson_waste

Proposed EU Legislation on the Recycling of Gas Discharge Lamps

To meet the need for the increasing demand for approved lamp recycling services, LIF has introduced an accreditation scheme for companies providing services for the collection and recycling of end of life lamps. A list of recommended service providers is attached. (See also the WEEE Statement from SustainaLite, which follows).

The EU Commission has proposed legislation within the management of Waste Electrical and Electronic Equipment (WEEE) directive proposal that would require all gas discharge lamps to be recycled at end of life. The existing proposal would require that all gas discharge lamps be treated to remove mercury (if present) and recycling undertaken to enable a high percentage of the materials of construction to be reused. Government has advised that these requirements will be implemented in 2006. Full details can be seen on the government web site: <http://164.36.164.20/sustainability/weee/index.htm>

The lamp producers have set up a company, Recolight, to operate for the lamp industry a compliance scheme for the WEEE regulations, and full details can be seen on the Recolight web site: <http://www.recolight.co.uk>

LIF give guidance on the implantation in their Technical Statement No 37: The implementation in the UK of the RoHS Directive

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IMPLEMENTATION OF THE EU LANDFILL DIRECTIVE IN THE UK – FULFILLING YOUR ‘DUTY OF CARE’ WHEN DISPOSING OF FLUORESCENT AND OTHER MERCURY CONTAINING LAMPS

The Landfill Directive has been implemented into UK law. As a consequence of the implementation of the EU Landfill Directive into UK law it will be illegal from 16 July 2004 to accept hazardous and non-hazardous waste for disposal in the same landfill site. After this date, where hazardous waste has been previously mixed with a non-hazardous waste, this must now be separated to ensure that the hazardous fraction is only disposed in a hazardous landfill site. Where it is not possible to separate the mixed waste, the whole consignment is deemed hazardous waste and must only be disposed of in a hazardous waste landfill. Furthermore, from this date, any hazardous waste that is to be land filled must also be treated prior to landfill.

This legislation has implications to those disposing of fluorescent and other mercury containing lamps at the end of their operational life. Fluorescent lamps are not considered special waste under the UK Special Waste Regulations (1996) but the implementation of the Landfill Directive also requires the adoption of the European Waste Catalogue (EWC) into UK law. The EWC defines fluorescent lamps and other mercury containing wastes as hazardous waste and hence from 16th July 2004 mercury containing lamps can only be disposed of by landfill at those sites registered for the acceptance of hazardous waste.

Even when these lamps are mixed with other waste the total waste will have to be disposed at a hazardous landfill unless the hazardous component is separated out. The inability to co-dispose of hazardous and non-hazardous waste will result in a major reduction in the number of landfill sites available for the disposal of mercury containing lamps. The Environment Agency estimates that there will be less than 10 hazardous waste landfill sites available for lamp disposal in the country. The cost of landfill disposal of mercury containing lamps will increase significantly even if available.

The Environment Agency is advocating that fluorescent and other mercury containing lamps should be sent for recycling as this promotes best practice in waste management. The lighting Industry Federation Ltd supports this point of view and has set up an organisation called SustainaLite, in co-operation with the waste management industry, to promote and audit the responsible management of end of life mercury containing lamps.

Every user of fluorescent or other mercury containing lamps has a ‘Duty of Care’ under legislation to dispose of them correctly. It is suggested that contact is made with a lamp recycling company or a waste contractor to seek advice on the recycling or the correct disposal to hazardous landfill of the lamps. Members of SustainaLite who can offer lamp recycling services are listed on the SustainaLite website (www.sustainalite.co.uk).