



# Dangerous Substances and Explosive Atmospheres Regulations 2002

**Introduction - Dangerous Substances and Explosive Atmospheres Regulations 2002 (SI 2002/2776) (DSEAR) came into force on 9th December 2002. The Approved Code of Practice and Guidance available from HSE Books was published in 2003, future. It should be noted that there are various implementation dates which require action by employers.**

## **What is DSEAR?**

The DSEAR Regulations are concerned with protecting workers against risks from fire, explosion and similar events arising from dangerous substances used or present in the workplace.

DSEAR implements the requirements of two EU worker protection directives:

- Directive 99/93/EC on minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres (Explosive Atmospheres Directive (ATEX 137))
- Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work (Chemical Agents Directive (CAD)).

A third Directive, 94/9/EC on the approximation of the laws of the Member States concerning equipment and protective systems intended for use in potentially explosive atmospheres (ATEX) has been implemented in the UK by the Equipment and Protective Systems intended for use in Potentially Explosive Atmospheres Regulations 1996 (EPS). Operations Notice 59 provides further information about EPS. DSEAR also applies to offshore installations and connected activities on the UKCS, except that the following Regulations do not apply offshore:

Regulation 5 (2) (f) (g) (h) (i); Regulation 5 (4) (c); Regulation 6 (4) (d); Regulation 6 (5) (b) (e); Regulation 7; Regulation 8 (1) (d) (e); Regulation 11; Schedule 1 (paragraphs 5, 6).

DSEAR repeals various pieces of old legislation, the most significant of which is the requirement for licensing of the storage of Petroleum. The first phase of the new Regulations removes this requirement in work areas and following on later will be modified requirements for Petroleum Retail outlets.

## **Who has duties under DSEAR?**

DSEAR places duties on all employers and the self employed, including owners, operators and contractors. These duties expand on the general duties under the Health and Safety at Work etc. Act 1974 and on the requirements of the Management of Health and Safety at Work Regulations 1999. Compliance with the Act and the 1999 Regulations, therefore, will make a significant contribution to compliance with the requirements of DSEAR.

## **What is a dangerous substance?**

DSEAR gives a detailed definition of 'dangerous substance' which should be referred to for more information, but includes any substance or preparation which, because of its properties or the way it is used, could cause harm to people from fires and explosions. Dangerous substances include; petrol; liquefied petroleum gas (LPG); paints; varnishes; solvents; and dusts which, when mixed with air, could cause an explosive atmosphere. Dangerous substances can be found, in varying quantities, in most workplaces.

Continued overleaf

### What is an explosive atmosphere?

An explosive atmosphere is an accumulation of gas, mist, dust or vapour which, when mixed with air, has the potential to catch fire or explode.

### What are the main requirements of DSEAR for employers and the self-employed? You must:

- Carry out a risk assessment of any work activities involving dangerous substances;
- Provide measures to eliminate or reduce risks as far as is reasonably practicable;
- Provide equipment and procedures to deal with accidents and emergencies;
- Provide information and training to employees.
- Classify places where explosive atmospheres may occur into zones and mark the zones where necessary.

### Dates for Implementation

**1st July 2003:** Employers must have taken action after this date on any newly created area where a hazardous explosive atmosphere is likely to occur.

After this date the licensing of areas for the storage of Petroleum Products in the workplace was no longer necessary.

**1st July 2006:** Employers must have taken action on any area where a hazardous explosive atmosphere is likely to occur.

**1st July 2003 to 1st July 2006:** Any modifications in an existing area where a hazardous explosive atmosphere is likely to occur will have required immediate actions to be taken to meet the DSEAR requirements.

### How HSB can help:

HSB have the necessary skills and training in order to assist employers manage their obligations under the new Regulations. Specifically we can provide:

- Risk Assessment Services to carry out an assessment of the risks from work with dangerous substances in a new work activity. (To meet Regulation 5 of DSEAR). If there are more than five persons in the particular workplace, this assessment must be formally recorded.
- Set out measures to assist owners to eliminate or reduce risks from dangerous substances. (To meet Regulation 6).
- Set out zonal classification for areas where explosive atmospheres may occur, assess the equipment within those areas for correct compliance and provide documentation to allow correct marking of the workplace area. (To meet Regulation 7).
- Provide the necessary inspection services to periodically examine the workplace to ensure that storage of substances is correct, any control ventilation is operating satisfactorily, that no ignition sources have potentially occurred due to deterioration of electrical equipment and systems and that equipment has been safely maintained and/or repaired to meet the various annexes to the Regulations which contain the specific ACOP and guidance.

To find out more about the services that HSB provide and the ways we help industry improve safety, reduce operating costs and improve efficiency, contact your local HSB office.

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