Dangerous Substances and Explosive Atmospheres (DSEAR) Regulations 2002

The Dangerous Substances and Explosive Atmospheres Regulations (DSEAR) came into force on the 9th December 2002 and are concerned with protection against risks from fire and explosion. The key requirement of the Regulations is that risks from dangerous substances are properly assessed and eliminated if possible or reduced as far as is reasonably practicable. The DSEAR regulations apply to almost every business workplace including the Higher Education (HE) section in the UK.

The regulations set out minimum requirements for the protection of workers from fire and explosion risks arising from the use of dangerous substances and potentially explosive atmospheres. DSEAR complements the requirement to manage risk as set out in the Management of Health and Safety at Work Regulations 1999 and requires that the risk to persons safety from dangerous substances and explosive atmospheres be addressed specifically. This requirement is in addition to assessing the risk to personal health when using hazardous substances which is addressed separately by the CoSHH Regulations.

Assessing the Risk

Heads of School/Management Unit (HOS) bear the ultimate legal responsibility for the safe use of any flammable liquids and gases that are used or stored within their area of responsibility. However, in general Principal Investigators are responsible for the production of effective risk assessments and formal protocols for work within their control involving flammable liquids and gases.

Arrangements should be in place that makes it explicit that good practices are developed for reducing risk to persons from fire, explosions and energy releasing events likely to cause harm. To ensure legal compliance Colleges, Schools or equivalent units must:

- Undertake a risk assessment of any work involving dangerous substances of a flammable or explosive nature (a DSEAR assessment form is available on the SEPS website).
- Provide technical and organisational measures to eliminate or reduce as far as reasonably practical the identified risks.
- Provide equipment and procedures to deal with accidents and emergencies that should result from such work involving these dangerous substances.
- Provide information, instruction and training to staff, students and visitors who may come into contact with these dangerous substances (or be present in area where substances of this type are in use) to ensure they are familiar with standard operating procedures and any safety precautions required.
- Classify workplaces where explosive atmospheres may occur and mark these areas clearly with the appropriate warning signs.

DSEAR Application

The following list covers some of the processes undertaken at the University of Glasgow where the DSEAR regulations will apply, please note that this list is not exhaustive and should be used for guidance only:

- Storage of fuels for motor vehicles and/or machinery
- Hot work on tanks or drums that may have contained flammable substances in the past
- Use of flammable substances in laboratories and research facilities
• Storage or purification of flammable solvents (including waste solvents)
• Storage, handling, use or generation of flammable gases
• Transport of flammable substances in containers (including compressed gas cylinders) around the workplace
• Processes where combustible dusts may be released into the atmosphere or build up in compartments

Further Guidance and Support
The University of Glasgow does not require the use of a standard DSEAR assessment form and individuals should feel free to create their own assessment systems. However, a blank template and guidance has been created for general use by the Safety and Environmental Protection Service and is hosted on the website for your convenience.

While carrying out a DSEAR assessment should be the responsibility of a competent person within the college / school / unit, further information and guidance can be obtained by contacting Safety and Environmental Protection Service who will be happy to answer any questions and provide support:

General Office: 0141 330 5532
Fire Safety Officer: 0141 330 4202 / 6109
Chemical Safety Adviser: 0141 330 2799
E-mail: safety@glasgow.ac.uk