

SAFE WORKING PROCEDURE

Dangerous Substances and Explosive Atmospheres Regulations (DSEAR)

CORPORATE HEALTH & SAFETY | VERSION 4.00 | OCTOBER 2023

STATEMENT:

In order to comply with legislation and fulfil statutory responsibility, the Council must make sure that:

- All situations involving the storage and use of liquids, gases and dusts that could give rise to a flammable or explosive atmosphere are risk assessed.
- It provides a safe working environment by the control of fire and explosion risks arising from use of dangerous substances.
- Precautions are implemented in order to reduce the risk to an acceptable level and mitigate consequences.

SCOPE:

This Safe Working Procedure applies to:

- All managers including Head Teachers referred to as managers herein.
- All employees of Southampton City Council.
- All contractors working on behalf of the Council.

1. Introduction

The purpose of this document is to provide Southampton City Council establishments/settings with information towards helping them to prevent fires and explosions or similar events that can occur when certain dangerous substances are present.

The DSEAR Regulations are about managing the risks of fire and explosion.

Dangerous substances may include;

- petrol
- liquid Propane Gas (LPG)
- oxygen
- paints
- varnishes
- solvents
- and certain dusts, which when mixed with air can create an explosive atmosphere.

An explosive atmosphere is an accumulation of; gas, mist, dust (including flour or other fine particles) or vapour, which when mixed with air has the potential to catch fire or explode.

Where these dangerous substances are present, managers must follow this guidance towards reducing the risks of fire and explosion.

2. Responsibilities

Senior Managers/Head Teachers are responsible for ensuring:

- 1.1. Employees, contractors and members of the public are protected from dangerous substances so far as is reasonably practicable.
- 1.2. Managers/Supervisors responsible for controlling dangerous substances are aware of their responsibilities and competent to undertake their duties.
- 1.3. Dangerous substances are risk assessed and control measures are in place to eliminate or reduce the safety risks from dangerous substances.
- 1.4. Control measures are in place to mitigate the risk of fire or explosion.
- 1.5. Emergency arrangements are in place to deal with any incidents.
- 1.6. Sufficient information, instruction and training are provided to the all relevant people.
- 1.7. Ensure relevant Trade Unions are consulted as appropriate in compliance with SWP Safety Representatives.

Managers are responsible for ensuring compliance with the SWP and must:

- 1.8. Carryout a DSEAR risk assessment when necessary. DSEAR risk assessments will be complementary to the COSHH, Fire and general risk assessments required by other prescriptive legislation and must be carried out by a competent person. A competent person is someone who has had sufficient training and experience or knowledge to allow them to carry out a DSEAR risk assessment properly. The level of competence required will depend on the complexity of the situation.
- 1.9. The risk assessment should entail the identification and careful examination of the dangerous substances present or liable to be present, the activities involving them and how they might fail and cause fire or explosion or similar event that could cause harm. The assessment should take into account the hazardous properties of the substances (e.g. certain dusts can spontaneously combust); the way in which substances are stored (e.g. LPG should be stored outside in a secure way); the possibility and likelihood of a hazardous explosive atmosphere occurring and all potential ignitions sources. Non-routine activities such as maintenance work should be assessed as well as routine activities.

- 1.10. Provide suitable control measures to eliminate or reduce as far as is reasonably practicable the identified risks. Control measures might be to;
 - a. eliminate the risk where possible; if not
 - b. substitute a dangerous substance with something less risky (e.g. a solvent with a lower flashpoint)
 - c. reduce the quantity of a substance stored or used (e.g. decant into smaller containers for use)
 - d. avoid or minimise releases (e.g. keep lids on containers, including receptacles for holding oily rags)
 - e. control releases at source
 - f. prevent the formation of an explosive atmosphere
 - g. collect, contain and remove any releases to a safe place (e.g. by extraction)
 - h. avoid ignition sources
 - i. avoid adverse conditions that could lead to danger (e.g. exceeding temperature limits)
 - j. keep incompatible substances apart
- 1.11. Provide equipment and procedures to deal with accident and emergencies.
- 1.12. Provide information, supervision, instruction and training to employees.
- 1.13. Provide relevant information and instruction to contractors.
- 1.14. Review any risk assessments/method statements provided by contractors in conjunction with the DSEAR and other relevant Council assessments prior to any contractor work commencement.
- 1.15. Identify and classify areas where explosive atmospheres may occur and avoid ignition sources (from unprotected equipment, for example) in those areas.
- 1.16. Ensure that pipes and containers containing dangerous substances are identified and marked, in accordance with DSEAR legislation and [HSE L64 – Safety signs and signals](#).
- 1.17. Where two or more employers share a workplace, systems must be in place for the provision of necessary information to enable co-ordination for the implementation of precautions.

Employees must:

- 1.18. Follow control measures identified by the relevant risk assessments.
- 1.19. Inform their supervisor if any processes that present a risk of fire or an explosive atmosphere.
- 1.20. Undertake training required to fulfil their duties and follow any instructions given.
- 1.21. Wear any personal protective equipment and respiratory protective equipment provided.
- 1.22. Report any shortcomings to the relevant manager.

Contractors must:

- 1.23. Comply with control measures stated on relevant risk assessments.
- 1.24. Provide a method statement as required prior to work commencement.
- 1.25. Modify their methods of work in light of any information provided by the Council with particular regard to DSEAR.

Fire Risk Assessors must:

- 1.26. Take into consideration the DSEAR risk assessment when carrying out a Fire Risk Assessment.

3. Procedures

- 2.1. The Health and Safety Executive have produced a short guide to the DSEAR Regulations INDG370, they have also produced Approved Code of Practice to the regulations L138, links to these and other guidance documents can be found in Contact Address's and Guidance Links below and should be used to inform the DSEAR risk assessment. Further assistance can be obtained from the Corporate Health and Safety Service, contact details below.

4. Safe Working Procedures Relevant to This Document

- 3.1 [Managing Wellbeing at Work](#)
- 3.2 [Risk Assessment](#)
- 3.3 [Control of Substances Hazardous to Health \(COSHH\)](#)
- 3.4 [Personal Protective Equipment](#)
- 3.5 [First Aid at Work](#)
- 3.6 [Gas Safety](#)
- 3.7 [Liquefied Petroleum Gas \(LPG\)](#)
- 3.8 [Control of Contractors - Construction and Building Maintenance](#)
- 3.9 [Control of Contractors - Service Providers and suppliers of goods](#)
- 3.10 [Permit to Work](#)
- 3.11 [Electricity Safety in the Workplace](#)
- 3.12 [Relevant forms](#)
 - 3.12.1. Risk Assessment
 - 3.12.2. Fire Risk Assessment

Note: Other safe working procedures may apply and the assessor should consult the SWPs. An A-Z is available on the Council's [Health and Safety Intranet](#).

5. Main Legislation Relevant to This Document

- 4.1 [Health and Safety at Work etc Act](#)
- 4.2 [The Management of Health and Safety at Work Regulations](#)
- 4.3 [Dangerous Substances and Explosive Atmospheres Regulations \(DSEAR\)](#)
- 4.4 [The Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations](#)
- 4.5 [The Gas Safety \(Installation & Use\) Regulations](#)
- 4.6 [The Gas Appliances \(Safety\) Regulations](#)
- 4.7 [The Classification, Labelling and Packaging of Chemicals Regulations \(CLP\)](#)
- 4.8 [The Construction \(Design and Management\) Regulations 2015 \(CDM\)](#)
- 4.9 [The Regulatory Reform \(Fire Safety\) Order](#)

6. Contact Address's and Guidance Links

- 5.1 Health and Safety Executive
www.hse.gov.uk
 - 5.1.1. [Health and Safety Executive DSEAR webpage](#)
 - 5.1.2. INDG370 – [A short guide to the Dangerous Substances and Explosive Atmospheres Regulations](#)
 - 5.1.3. L138 – [Dangerous Substances and Explosive - Approved Code of Practice and guidance](#)
 - 5.1.4. L64 – [Safety signs and signals](#)
 - 5.1.5. INDG227 – [Safe Working with Flammable Substances](#)
 - 5.1.6. [Electricity in potentially explosive atmospheres](#)
 - 5.1.7. [Further Guidance: Fire and explosion](#)
- 5.2 Royal Society for the Prevention of Accidents
[ROSPA](#)
- 5.3 Institute of Occupational Safety and Health
[IOSH](#)
- 5.4 Corporate Health and Safety Service
[Health and Safety Intranet](#)

For full contact address visit the health and safety intranet [Useful Contacts](#).