Organisational Arrangements for the Management of Hazardous Substances

Health and Safety Service
Introduction
These organisational arrangements form part of the College’s Health and Safety Policy and outline how the College seeks to comply with the requirements of The Control of Substances Hazardous to Health Regulations 2002 (COSHH).

Hazardous substances are defined in Regulation 2 (See Appendix A for details and exclusions) and cover virtually all substances capable of causing adverse health effects or diseases arising from work activities. The regulations also include the control of risk arising from the use of biological agents.

The main requirement of these regulations is that no work using hazardous substances must take place without a suitable and sufficient assessment of the risks being carried out. The assessment should usually be in writing and should include details of control measures to be used. Information instruction and training should be given to persons working with the hazardous substance and anyone else who may be affected by it.

REACH stands for the ‘Registration, Evaluation, Authorisation and restriction of Chemicals’ As a user of chemical substances, the College has specific duties it must carry out under the REACH Enforcement Regulations 2008. For most chemicals, the College should use them in accordance with the information provided on their Safety Data Sheet (SDS). For very novel uses of a chemical, the supplier should be informed, to check that the use has been registered. For some chemicals ‘exposure’ scenarios’ may be included in the SDS. The College must use the risk management procedures detailed on the SDS for the use of that chemical.

Management
The responsibilities outlined in the College’s Organisational Arrangements for the Management of Health and Safety extend to the management of hazardous substances

In the College whilst Deans, Directors and Heads of Departments are ultimately responsible for compliance with these regulations, the individual risk assessment should be made by persons having knowledge and experience of the substances being used. This will usually be heads of research groups, laboratory managers, catering and maintenance managers and academic staff.

Risk assessment
The risk assessment shall include consideration of—
- (a) the hazardous properties of the substance;
- (b) information on health effects provided by the supplier, including information contained in any relevant safety data sheet;
- (c) the level, type and duration of exposure;
- (d) the circumstances of the work, including the amount of the substance involved;
- (e) activities, such as maintenance, where there is the potential for a high level of exposure;
- (f) any relevant occupational exposure standard, maximum exposure limit or similar occupational exposure limit;
– (g) the effect of preventive and control measures which have been or will be taken in accordance with regulation 7 (see below);
– (h) the results of relevant health surveillance;
– (i) the results of monitoring of exposure in accordance with regulation 10 (see below);
– (j) in circumstances where the work will involve exposure to more than one substance hazardous to health, the risk presented by exposure to such substances in combination;
– (k) the approved classification of any biological agent; and
– (l) such additional information as the employer may need in order to complete the risk assessment.

The risk assessment shall be reviewed regularly and forthwith if—
• (a) there is reason to suspect that the risk assessment is no longer valid;
• (b) there has been a significant change in the work to which the risk assessment relates; or
• (c) the results of any monitoring carried out in accordance with regulation 10 show it to be necessary, and where, as a result of the review, changes to the risk assessment are required, those changes shall be made.

Hierarchy of Control
Regulation 7 requires that an employer prevent exposure to hazardous substances or, if this is not reasonably practicable, that he adequately controls exposure. One of the main points of the COSHH risk assessment is to identify the measures that are to be used to avoid a hazard or reduce the level of risk associated with a hazard. The risk assessment must determine that exposure to hazardous substances is prevented or, if this is not reasonably practicable, adequately controlled. Ideally, this will mean preventing exposure by:
– removing hazardous substance, by changing the process;
– substituting it with a safe or safer substance, or using it in a safer form.
– Where this is not reasonably practicable, controlling exposure by, for example:
  • totally enclosing the process;
– using partial enclosure and/or extraction equipment (such as a spray painting booth);
– general ventilation;
– using safe systems of work and handling procedures (written procedures, etc.).
• The COSHH regulations, however, limit the use of personal protective equipment (e.g. respirators, dust marks, protective clothing), as the means of protection to only those situations where other measures cannot adequately control exposure.

Workplace monitoring
In order to comply with the requirements of Regulation 10, where the risk assessment indicates that workplace monitoring of exposure is necessary, arrangements to perform such monitoring must be implemented, normally in consultation with the College’s Health and Safety Advisor. Where workplace
exposure monitoring is undertaken, trade union safety representatives must be informed.

**Health monitoring**
Health surveillance of employees is carried out where:

- An identifiable disease or adverse health effect may be related to the exposure;
- There is a "reasonable likelihood" that the disease or health effect may occur under the particular conditions of work;
- Valid techniques exist for detecting indications of the disease of health effect; and
- The technique presents a low risk to the employee;

Where a risk assessment indicates that health monitoring may be required the risk assessor must consult the College’s Health and Safety Advisor and if necessary the College’s Occupational Health Physician.

**Engineering controls**
Where a risk assessment identifies the use of engineering controls they should be regularly checked for correct function and maintained in an effective state, e.g. local exhaust ventilation systems should be checked at least every 14 months and records of these checks must be kept for 5 years.

**Personal protective equipment (PPE)**
Where a risk assessment identifies personal protective equipment as a control measure it be suitable and sufficient for the purpose and users must receive sufficient information, instruction, training and supervision to make full and proper use of it and report any defects found. The provision of any PPE must be in accordance with the requirements of the Personal Protective Equipment at Work Regulations 1992.

**Training and supervision**
All persons involved with the work must be given enough information, instruction, training and supervision to ensure that they are working in a safe manner and are fully aware of the nature of the hazards they are working with. Control measures for any remaining risks should be adequate for the purpose and clearly understood by anyone who may be affected.

They should also know and understand all the necessary precautions to be taken and any emergency procedures prior to commencing work and should there be any changes to procedures all persons undertaking the work must be informed of those changes.

**Generic risk assessment**
For undergraduate practical work, where standard well-tested procedures are being used, generic assessments can be made. Safe procedures based on these should be written into the practical protocols. However, modifications to standard practice should be assessed thoroughly before implementation.
**Biological risk**
Where a biological risk is identified the risk assessment shall take into account the guidance contained in The Approved List of biological agents published by the HSE and where necessary seek the advice of the Biological Safety Officer. Risk assessments for genetically modified organisms are covered by separate arrangements.

**Legionella**
Legionella presents a specific biological risk that is well understood and has been subject to separate guidance from the Health and Safety Executive. The Facilities and Estates Services shall make suitable arrangements for the management of legionella risk in accordance with the requirements of the Legionnaires’ Disease - The Control of Legionella Bacteria in Water Systems - Approved Code of Practice and Guidance.

**Record keeping**
Details of risk assessments, the servicing and maintenance of engineering controls, personal protective equipment, environmental and health monitoring records shall be suitably maintained for a period not less than forty years from the end of the activity that presented the risk from a hazardous substance.

**Acquisition and disposal**
No hazardous substance shall be purchased or otherwise obtained by for use in the College until a suitable and sufficient risk assessment has been undertaken and safe disposal routes have been identified.

**Transport**
No hazardous substance shall be transported off site unless suitable arrangements are made in advance for its safe transportation in accordance with relevant legislation such as The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009. Guidance is available on the Health and Safety Executive website.
REFERENCES:-
All the following are available from HSE Books, HMSO or online.
☐ Control of Substances Hazardous to Health Regulations 2002
☐ Legal Series 5: Control of Substances Hazardous to Health - The Control of Substances Hazardous to Health Regulations 2002 (as Amended) - Approved Code of Practice and Guidance
☐ EH 40 (revised annually) Occupational Exposure Limits
☐ EH 44 Dust: General Principles of Protection
☐ HS(G) 37 Introduction to Local Exhaust Ventilation
☐ HS(G) 61 Surveillance of People Exposed to Health Risks at Work
☐ HS(G) 97 A Step by Step Guide to COSHH Assessment.
☐ Respiratory Protective Equipment – Legislative Requirements and Lists of HSE Approved Standards and Type Approved Equipment.
☐ IND(G) 136 COSHH, A Brief Guide for Employers.
☐ European Chemicals Regulation (REACH) 1907/2006/EC
☐ REACH Enforcement Regulations 2008
Appendix A – Substances Hazardous to Health

Definitions arising from Regulation 2 COSHH

- Substance hazardous to health:
  - Very toxic, toxic, corrosive, harmful or irritant and listed in the CLP Regulations;
  - Substance for which the HSE has approved a Workplace Exposure Limit (WEL) or Occupational Exposure Standard (OES);
  - A biological agent
  - Dusts at certain concentrations
  - Any other substance that may present a hazard to health.

The CLP (classification, labelling and packaging) Regulation (CE) 1272/2008 aligns previous EU legislation with the GHS (Globally Harmonised System of Classification and Labelling of Chemicals), a United Nations system to identify hazardous chemicals and to inform users about these hazards

Exclusions arising from Regulation 5 COSHH

- Excluded from COSHH
  - Coal dusts
  - Lead
  - Asbestos
  - Where the risk is exclusively due to physical properties; Radioactive, Explosive, Flammable, High or Low Temperature & Pressure;
  - Medicines – used in diagnosis or treatment.