

CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS 2004 (As Amended) COSHH

POLICY AND PROCEDURES

Approved by Council 2 April 2009

INTRODUCTION

All annexes and forms can be downloaded at:

http://www.keele.ac.uk/admin/hr/ohsu/HandS_manual/keeleonly/coshh/index.htm

The COSHH Regulations 1988 first came fully into operation in January, 1990. The latest of several amendments, The Control of Substances Hazardous to Health (Amendment) Regulations 2004 No. 3386, came into operation on 17th January, 2005.

The duty for compliance is placed upon the employer in respect of his employees and also, with some exceptions, to other persons whether at work or not who may be affected by the work. The employer is the University.

Annex 1 contains a summary of the major requirements of the Regulations.

UNIVERSITY COSHH POLICY AND PROCEDURES

It is the Policy of the University fully to comply with the COSHH (Amendment) Regulations 2004, and any other future amendment.

Scope

This Policy applies to all University staff working on the main campus, the Guy Hilton Laboratory and any other relevant workplace used by University staff on the University Hospital Campus.

Responsibilities

The Council of the University has ultimate responsibility for ensuring the implementation of COSHH throughout the University and will retain this statutory responsibility irrespective of needing to delegate appropriate action throughout the University.

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In practice, relevant Deans and Directors have delegated responsibility for making arrangements in their areas to implement the Regulations, where they apply.

The major areas affected by the Regulations will be the Faculties of Health and Natural Sciences and CFM Estates and Buildings. Here relevant Deans and the Director of CFM must ensure adequate arrangements are made through Heads of Schools, Directors of Research Institutes, and managers of all other relevant parts of the University, to fully implement the Regulations.

Action

The COSHH Regulations have now operated for many years in the University, so relevant areas are already be fully aware of the requirements and will have implemented the Regulations.

However, Heads, Directors and managers should review their existing arrangements as soon as reasonably practicable following approval of this revision, and thereafter on an annual basis to ensure they fully comply with COSHH.

The review will ensure the use of any substance hazardous to health is captured within their areas of responsibility and that staff who undertake assessments are identified and provided with any necessary training or re-training.

COSHH training is carried out by the Department of Occupational Health and Safety, DOHS, and in the case of laboratories using biological substances, the University's Biological Safety Adviser.

Other valuable advice and guidance is contained in the current Approved Code of Practice and Guidance (ACOP & GN) the "Control of Substances Hazardous to Health (Fifth Edition)". A copy is lodged with the DOHS. This ACOP has a special legal status and is for the University to prove it has been followed or to be able to demonstrate that a better or equally effective way has been taken to comply with the Regulations.

Substances hazardous to health

The Regulations apply to the use of hazardous substances in connection with work. For example:

- Work activities using adhesives, paints, cleaning agents, toner.
- Substances used in teaching and research laboratories
- Substances generated during work activities, eg fumes from soldering
- Naturally occurring substances, eg, legionella or leptospirosis
- Other biological agents such as bacteria and other micro-organisms used in laboratories
- Asphyxiants, eg as an outcome of the use of liquid nitrogen.

Effects of hazardous substances

Examples of the effects of hazardous substances include:

- Skin irritation or dermatitis
- Asthma as a result of developing allergy to substances at work
- Losing consciousness as a result of being overcome by toxic fumes
- Cancer, which may appear long after exposure
- Infection from bacteria and other micro-organisms
- Sensitization to a substance

Hazardous substances not under COSHH

Some hazardous substances are not encompassed by the COSHH Regulations, as they have their own. For example work with lead or asbestos attract their own special control measures.

THE COSHH ASSESSMENT PROCESS

This University Policy and Procedure outlines each of the eight steps which must be undertaken during the COSHH assessment. **The failure to consider each of the steps, which will ultimately inform the need for control measures, may mean the assessment is rendered unsafe and would not comply with the Regulations.**

As each of the eight steps is considered, the COSHH Assessment Form should be completed to provide a written record.

In addition, Schools/Departments must now ensure the new eight Principles of Good Practice for the Control of Exposure to Substances Hazardous to Health ([link](#)) are referred to at the conclusion of each COSHH assessment. These principles should be used as an additional aid memoire or benchmark to ensure in the higher risk assessments that the assessment is suitable and sufficient.

The completed COSHH assessment form will inform the person undertaking the work involving the hazardous substances. It may also be requested during any inspection. In laboratories the document will inform the Standard Operation Procedures and any necessary training of those undertaking the work.

Schools/departments which have devised their own COSHH assessment forms should continue to use them as they will be relevant to their own needs. However, it must be carefully noted that the model generic COSHH assessment form contains every statutory element to ensure a safe and suitable assessment is possible. Whereas the style and layout is fully within the gift of a School/Department, no matter of content can be removed and it is important that no step is removed. If it is, the assessment may no longer be valid and could render the University liable to legal proceedings. Schools/departments using their own COSHH forms must therefore ensure that their Forms contain every detail in the generic form.

The DOHS will respond to any queries that may arise.

The relevant COSHH Assessment forms can be downloaded below:

Generic COSHH Assessment Form

Principles of Good Practice for the Control of Exposure to Substances Hazardous to Health (Appendix to Generic COSHH form)

Biological COSHH Assessment Form (optional COSHH assessment form used for Schools and RIs where biological assessments are required).

SUMMARY OF STEPS

Note: The following is not training as this is provided by DOHS.

Step1: Assess the risks – hazard potential

Assessors will need to decide for any work activity whether there is a hazardous substance present. This will include evaluating the hazard and exposure potentials particularly on the health of those working with the hazardous substance or anyone else who could be affected by the work. If there is no hazardous material a COSHH assessment is not necessary. Of course other hazards may exist which attract different Regulations such as Regulation 3 of the Management of Health and Safety at Work Regulations.

Useful sources of information include the HSE website which contains a full copy of “EH 40 Workplace Exposure Limits” www.hse.gov.uk/coshh/table1.pdf

Also see – “Workplace Exposure Limits” (link to our Annex 2)

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002, CHIP 3 www.hse.gov.uk/chip/index.htm should also be considered.

Other considerations will include:

- How much of the substance is used or produced by the work activity.
- Who could be exposed and how often
- The route of exposure into the human body

The assessment must also be relevant to what really happens in the workplace or laboratory. In more complex cases competent help can be obtained from the DOHS or biological safety adviser, etc.

Step 2: Decide what precautions are needed – estimate of risk

The exposure hazard and potential will inform the assessor about the risks from the hazardous substances used in a work procedure.

Step 3: Prevent or adequately control exposure – hazard reduction

The Regulations require the prevention of exposure to substances hazardous to health, if it is reasonably practicable to do so. For example by:

- Changing the process or activity so that the hazardous substance is not needed or generated
- Replacing the substance with a safer alternative
- Using a safer form such as liquid in place of powder
- Using a smaller quantity of the hazardous substance.

If prevention is not reasonably practicable the work must be *adequately controlled* in the following order of priority:

- Using systems and engineering controls, suitable equipment and materials to minimise the production or useage of the hazardous material.
- Providing local exhaust ventilation at source and reduce the number exposed to a minimum, the level and duration of exposure and the quantity of hazardous substances used or produced
- As a last resort, providing personal protective equipment

Under COSHH *adequate control* means:

- Applying principles of good practice set out in the Principles of Good Practice document ([link](#))
- Not exceeding the workplace exposure limit (WEL) for the substance, if there is one, see **Annex 2**
- If a substance causes cancer, heritable genetic damage or asthma, reducing exposure to as low as is reasonably practicable. For carcinogens or mutagens special requirements apply. These are explained in Appendix 1 of the COSHH ACOP.
- Ensuring substances capable of penetrating the skin through damaged tissue or by absorption, is prevented

Step 4: Ensure that control measures are used and maintained

It is the responsibility of Heads/Directors to ensure that all reasonable steps are taken to ensure that staff make proper use of control measures and to report defects. It is also equally the responsibility of staff to use any control measures provided. Failure to do so could render the person liable to University discipline or prosecution.

Maintaining control measures

Every control measures must continue to perform as originally intended. This applies to items of equipment such as local exhaust ventilation and to systems of work, which must be regularly checked to make sure that they are still effective.

Where engineering control measures are in use, such as a fume cupboard, microbiological safety cabinet or other means, they must be checked to see

that they work and are effective. This statutory requirement is already operational in University laboratories and CFM Estates Department.

COSHH sets specific intervals between examinations for local exhaust ventilation equipment and a system must be put in place for records of examinations and tests, or a record, to be retained for at least five years. **Annex 3** contains further guidance on monitoring equipment performance.

Where respiratory protective equipment is used this should be examined and where appropriate tested at suitable intervals. There is also a new legal requirement that every person using an oral nasal respirator must be type tested to ensure a suitable fit to the face. **This must be carried out before the use of such equipment and the DOHS must be approached to carry out this procedure.**

Step 5: Monitoring exposure

In cases where the assessments conclude that:

- There could be serious risks to health if control measures failed or deteriorated;
- Exposure limits, WEL's, might be exceeded;
- Control measures might not be working properly

then the concentration of hazardous substances in the air breathed in by workers must be assessed. This will include other forms of exposure e.g. skin contact.

However, this need not be carried out if it can be shown that another method of evaluation of preventing or adequately controlling employees' exposure to hazardous substances is in place, for example a system which automatically sounds an alarm. The COSHH ACOP provides other examples.

Any records of exposure monitoring must be maintained for at least five years. Where an member of staff has a health record, required where they are under health surveillance - Step 6, any monitoring results relevant to them as an individual must be kept with their health record. Staff have a right to be allowed to access their personal monitoring record.

Step 6: Carry out appropriate health surveillance

Members of staff must be referred to the OHS for health surveillance where they are likely to be exposed to a substance linked to a particular disease or adverse health effect *and* there is a reasonable likelihood, under the conditions of work, of that disease or effect occurring and it is possible to detect the disease or health effect. For example the use of carcinogens or sensitizers.

The failure to ensure health surveillance is carried out before work commences in cases where a COSHH assessment (or any other assessment under other Regulations) indicates it should be provided, is deemed to be

serious and would contravene the Regulations and University procedures. It is therefore the responsibility of the person carrying out the assessment to ensure health surveillance has been initiated with the OHS. Health surveillance might involve examination by a doctor or trained nurse, or it may be a simple health questionnaire. In some cases trained supervisors could, for example, check employees' skin for dermatitis, or ask questions about breathing difficulties where work involves substances known to cause asthma. Once an individual has been referred for health surveillance reviews will be organised by the OHS.

The OHS will maintain the health record of an individual for at least 40 years.

A list of individuals attending for occupational health surveillance is maintained by the OHS.

See **Annex 4** for references to further guidance under health surveillance.

Step 7: Prepare plans and procedures to deal with accidents, incidents and emergencies

This will apply where the work activity gives rise to a risk of an accident, incident or emergency involving exposure to a hazardous substance, which goes well beyond the normal day to day work. In such circumstances an emergency procedure must be devised and implemented. A typical example would be in a laboratory where a major spillage of acetone arises. Here an emergency spillage kit must be immediately available and staff trained in its use.

This step must also be fully complied with where either carcinogens, mutagens or biological agents are used.

In circumstances where the quantities of substances hazardous to health present in the workplace are such that they present only a slight risk ; and the measures in place under Step 3 are sufficient to control the risk, then Step 7 will not be required.

Step 8: Ensure that staff and students are properly informed, instructed, trained and supervised

Heads must make arrangements to ensure that staff and students using substances hazardous to health subject to COSHH assessment, are provided with suitable and sufficient information, instruction, training and supervision.

This information will be recorded on the COSHH form and will include:

- The names of the substances they work with or could be exposed to and the risks created by such exposure and access to any data sheets that apply to the substance;
- The main findings of the risk assessment;
- The control measures they should take to protect themselves and other staff or students;

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- How to use any personal protective equipment and clothing provided;
- Results of any exposure monitoring and health surveillance
- Emergency procedures which need to be followed.

Should any significant changes in the type of work carried out or the methods used, the COSHH assessment must be revisited. Any new information appropriate to the level of risk identified by the reassessment must be provided to staff and students in a manner and form in which it will be understood

Finally, it is the Policy of the University that staff and students fully understand the risks from the hazardous substances they could be exposed to. This is important because control measures are unlikely to be fully effective if staff or students do not know their purpose, how to use them properly or the importance of reporting fault.

CONCLUSION OF COSHH ASSESSMENT

This is the end of the COSHH assessment process for work activities using hazardous materials. The Annexes amplify and develop issues raised in the above.

Annex 1 – Summary of Major Regulations under COSHH 2004, as amended

Annex 2 – EH40/2005: Workplace Exposure Limits

Annex 3 – Exposure Routes, Control and Control Equipment: Provision and Performance – Fume cupboards and Personal Protective Equipment

Annex 4 – Health Surveillance

Annex 5 – Further advice and information, useful links

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