

Elliott Nash Ltd Control of Substances Hazardous to Health Procedure (SHE 33)

Introduction

Hazardous substances can take many forms including:

- Substances used directly at work for example cleaning substances, paints, solvents, adhesives etc.
- Substances generated during work activities e.g. Fumes or dust produces through work.
- Naturally occurring substances; flour, grain dust, anthrax etc.
- Biological agents such as bacteria.

Control is important, as some substances do not have immediate affects and symptoms of exposure may not occur until twenty to fifty years after exposure, i.e. silicosis and asbestosis.

Legislation

The Control of Substances Hazardous to Health Regulations 2002 (COSHH) (as amended) provides the main legislative framework for the control of hazardous substances in the workplace. Legionella bacteria (which causes Legionnaires' disease) is covered by these regulations and has its own approved code of practice. Guidance Note -Legionnaires' disease deals more specifically with this topic.

COSHH sets out, in broad and general terms, the measures needed to prevent or adequately control exposure to hazardous substances in virtually every place of work. The definition of hazardous substances includes:

- Substances classified under the Chemical Hazards (Information for Packaging for Supply) Regulations 2002 (CHIP).
- Substances assigned Occupational Exposure Limits (contained in Health and Safety Executive Guidance Note EH40, updates to which are available on the HSE website).
- Biological agents that are used for, or produced as, part of a work activity.
- Dusts and any substance that could pose a hazard to health in the working environment.

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To make it easier any substance displaying one of the following symbols will require an assessment;



T+ Very Toxic



T Toxic



XN Harmful



C Corrosive



XI Irritant

(These symbols are only relevant to specific substances for example adhesives. Further advice is required for naturally occurring substances, substances generated during a work process and biological agents)

Assessments

The COSHH regulations require ENC to carry out an assessment of the substances used. There are 8 steps that need to be followed:

STEP ONE

Assess the risk to health from the substances either being used or created.

The assessment must take into account:

- Hazardous properties of the substance.
- Information on the health effects provided by the supplier (look for safety data sheet).
- The level, type and duration of any exposure.
- The circumstances of the work.
- Activities (e.g. maintenance) which may increase the potential for exposure.
- Exposure limits.
- Effects of control measures.
- Results of monitoring.
- Possible combinations of substances increasing the risks.
- The approved classification of any biological agent.
- Any additional information the employer may need.

Unless quantities of hazardous substances used are deemed to be so low that there is only a slight risk to the health of employees, the employer must ensure that they have arrangements in place to deal with accidents, incidents and emergencies.

This may include the provision of additional first aid facilities and safety drills.

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The information concerning these arrangements must be readily available and displayed if necessary, together with the provision of suitable warning and communication systems.

Should an incident then occur, the employer must then take immediate steps to restore the situation to normal and control the effects that led to the occurrence.

STEP TWO

Decide what precautions are needed. You must not allow work to be carried out where hazardous substances are involved without considering the risks and putting precautionary measures in place to protect employees and others who may be affected by the work.

STEP THREE

Prevent or adequately control exposure. There is a hierarchy of control measures that should be applied to hazardous substances which is shown below in descending order of priority:

- Elimination of the hazardous substance at source.
- Substitute the substance for a less hazardous alternative.
- Enclosure of the process.
- Use plant or processes which minimise the production of the hazardous substance.
- Partial enclosure, supplemented with the use of engineering controls.
- Use of engineering controls.
- Increasing general ventilation.
- Removal of persons from the hazard.
- Limit the time persons are exposed to the hazardous substances (e.g. use a system of task rotation).
- Increased hygiene procedures (cleaning of contamination).
- Provision of information, instruction and training.
- Provision of Personal Protective Equipment.

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STEP FOUR

Ensure the control measures are maintained and used properly and that the safety procedures are followed.

All control measures have to be maintained to ensure that they are still effective. If not otherwise specified, the measures taken should include visual checks and examinations as prescribed by the manufacturer.

There is also a requirement to ensure that RPE is thoroughly examined at least once a month, this requirement does not apply to single use disposable respirators.

STEP FIVE

Monitor exposures. Measure the concentration of hazardous substances in the air breathed in by workers where your assessment concludes that:

- There could be serious risks to health if control measures failed.
- Exposure limits might be exceeded; or
- Control measures might not be working properly.
- Workplace exposure limits (WELs) are as the name suggests limits of the amount of hazardous substances people should be exposed to at work.
- WELs are concentrations of hazardous substances in the air, averaged over a specified time period, referred to as a time-weighted average (TWA).

Two time periods are used:

- Long term exposure limits (8 hours)
- Short term exposure limits (15 mins) – set up to help prevent effects such as eye irritation, which may occur following brief exposure.

Workplace exposure limits are levels above which there is a known risk to health – these must never be exceeded.

NB. Therefore there is no absolute “safe” level of exposure for dangerous substances and employers should aim to bring exposure to the lowest achievable level.

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STEP SIX

Carry out appropriate health surveillance, if applicable. For certain hazardous substances there is a requirement to carry out health surveillance. These substances are listed in the Regulations.

Health Surveillance may also be necessary in situations where early detection will be beneficial in arresting the progression of ill health. Refer to Guidance note – Health Surveillance for further information on this topic.

STEP SEVEN

Prepare plans and procedures to deal with accidents, incidents and emergencies.

Where the work activity may lead to risk of an accident, incident or emergency involving exposure to a hazardous substance which goes well beyond the risks associated with normal day-to-day work, you should set up warning and communication systems to allow a suitable response immediately should any incident occur. This is to ensure information on your emergency arrangements is available to those who need to see it, including the emergency services. It also requires these 'safety drills' to be practised at regular intervals.

Only those staff necessary to deal with the incident may remain in the area and they must be provided with appropriate safety equipment.

Do not produce emergency procedures if:

- The quantities of substances hazardous to health present in your workplace are such that they present only a slight risk to your employees' health; and
- The measures you have put in place under Step 3 are sufficient to control that risk;

BUT, the requirements described in Step 7 must be complied with in full where carcinogens, mutagens or biological agents are used.

STEP EIGHT

Ensure employees are properly informed, trained and supervised.

Information on hazards posed by chemicals can be found through various sources:

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- Suppliers' safety data sheets (there is a legal requirement to provide safety data sheets under the Chemicals Hazards (Information for Packaging for Supply) Regulations (CHIP) 2002.
- The Health and Safety Executive Environmental Hygiene (EH) series of guidance notes.
- Other information from the manufacturer.
- Information from trade associations and similar bodies.

An Example of a completed COSHH Assessment has been included in Appendix 1 and a blank example in Appendix 2

Note

Asbestos and Lead are subject to their own regulations and are not covered by COSHH:

- The Control of Asbestos Regulations 2006.
- The Control of Lead at Work Regulations 2002.

Further references and Guidance

- COSHH Essential Guidance <http://www.hse.gov.uk/coshh/>
- COSHH Approved Code of Practice L5 - www.hsebooks.co.uk
- Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 <http://www.opsi.gov.uk/>

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