CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH PROCEDURE

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HEALTH AND SAFETY Control of Substances Hazardous to Health Procedure

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1. Purpose

1.1 This document sets out how Ulster University will implement Control of Substances Hazardous to Health Regulations to protect employees, students and all others from exposure to substances which are hazardous to health as a result of activities in the University.

2. Scope and Commencement

- 2.1 This procedure applies to all areas of operation within the University where hazardous substances are used or are present which could, if not properly controlled, cause harm to health.
- 2.2 It applies to both University personnel (including students under supervision) and Contractors with effect from April 2025.
- 2.3 This procedure does not cover lead, asbestos or radioactive substances as they have their own regulations.

3. Background

- 3.1 Every year, thousands of workers are made ill by hazardous substances. These can be found in many work environments throughout the University including, offices, studios, workshops, laboratories, stores, plantrooms, kitchens, and the natural environment etc.
- 3.2 Substances hazardous to health can include:
 - substances used directly in work activities (e.g. adhesives, paints, cleaning agents, acids, alkalis);
 - substances generated during work activities (e.g. fumes from soldering/ welding, dust from wood cutting);
 - naturally occurring substances (e.g. rubber, certain vegetation, sewage, animal waste);
 - biological agents (e.g. bacteria and other micro-organisms).

The 'substances' part of COSHH can be in the form of liquids, solids, fumes, dust, vapours, fibres, nanoparticles, mists, gases and biological agents such as bacteria and viruses.

- 3.3 The health effects of exposure can be immediate or as a result of repeated exposure over a period of time. They can be short term such as skin or eye irritation, dizziness or sore head. However, often longer term health effects can occur including skin disease such as dermatitis or cancer.
- 3.4 The four main routes of entry are inhalation, ingestion, injection and absorption through the skin and eyes. There may be more than one of these routes depending on the hazardous substance.
- 3.5 Ill health caused by exposure to hazardous substances at work is normally preventable. The University has a duty to take effective measures to control exposure and protect the health of those working with, or potentially exposed to. hazardous substances.

4. Definitions

- 4.1 Definition of terms in this Health & Safety procedure will be as set out in the Control of Substances Hazardous to Health Regulations ~ Regulation 2 "Interpretation" (http://www.hse.gov.uk/pubns/priced/l5.pdf).
- 4.2 In terms of the Regulations, a Substance Hazardous to Health is:
 - One that has already been classified as being very toxic, toxic, harmful, corrosive or irritant under the Chemicals (Hazard Information and Packaging) Regulations or CHIP (The Approved Supply List); or
 - A substance which has been assigned exposure limits or a substance that is carcinogenic, mutagenic or toxic to reproduction; or
 - A biological agent; or
 - A dust in substantial concentrations in air; and
 - Any substance not mentioned above but which creates a hazard to health comparable to those mentioned above.

5. Key Legal Requirements

- 5.1 The law requires employers to control exposure to substances hazardous to health to prevent ill health. The University has to protect both employees and others who may be exposed by complying with the **Control of Substances**Hazardous to Health Regulations (Northern Ireland) 2003 (as amended by the Control of Substances Hazardous to Health (Amendment) Regulations (Northern Ireland) ("COSHH Regulations").
- 5.2 The COSHH Regulations are not only a legal requirement, but a useful tool of good management which set eight basic measures that employers, and sometimes employees, must take:
 - 1. Assess the risks;
 - 2. Decide what precautions are needed;
 - 3. Prevent or adequately control exposure;
 - 4. Ensure that control measures are used and maintained;
 - 5. Monitor the exposure;
 - 6. Carry out appropriate health surveillance;
 - 7. Prepare plans and procedures to deal with accidents, incidents and emergencies;
 - 8. Ensure employees are properly informed, trained and supervised.
- 5.3 Due to the detailed requirements governing the use of substances hazardous to health, this procedure contains direct references and links to the COSHH Regulations, Approved Code of Practice and Guidance:

 (http://www.hse.gov.uk/pubns/priced/15.pdf). As the Northern Ireland Regulations do not currently have a related Approved Code of Practice or Guidance Notes the GB version is used.

6. Responsibilities

6.1 General roles and responsibilities for University staff are detailed in the <u>University Health, Safety and Wellbeing policy</u>. Those with responsibility for workshops, laboratories and studios or for activities involving use of, or potential exposure to, substances hazardous to health will have particular responsibilities.

6.2 **Managers*** must:

- ensure that Risk (COSHH) Assessments are carried out for all substances/processes hazardous to health which create, or could create, a significant risk to staff or others affected by their work;
- ensure competency of users and provide for relevant training and supervision;
- maintain an inventory of hazardous substances, keeping to a minimum e.g. dispose of hazardous substances at end of a project if not reasonably expected to be used elsewhere;
- Consider the type of hazardous waste created and have arrangements in place to safely dispose in compliance with relevant regulations (see 14.1);
- ensure safe means of transportation, storage and segregation;
- establish procedures to ensure that control measures, including items of Personal Protective Equipment ("PPE") and any other item or facility, are properly used or applied;
- ensure that plant and equipment (including engineering controls such as LEV, gas detection) are adequately maintained, examined and tested;
- monitor the exposure of staff to substances hazardous to health as required;
- ensure appropriate Health Surveillance is provided to staff as required;
- provide adequate information, instruction and training for those potentially exposed to substances hazardous to health;
- establish effective procedures to cover accidents, incidents and/or emergencies related to the presence of substances hazardous to health.
 * In this context of COSHH this may be, for example, the Departmental Manager, Academic Supervisor/Technician

6.3 Staff must:

- follow the defined methods of work and use the control measures provided for materials, equipment and processes;
- wear and store any PPE provided, including any Respiratory Protective Equipment ("RPE"), correctly and in accordance with any training/instruction provided (and the manufacturer's instructions);
- remove any PPE which could cause contamination, before eating, drinking or smoking;
- practice a high standard of personal hygiene and make proper use of the facilities provided;
- report promptly to their manager, or laboratory manager, any accident or incident involving substances hazardous to health;
- report any problems or concerns, particularly those in relation to substances hazardous to health, straight away, to their manager/supervisor;
- attend health surveillance as may be required;
- let their manager/supervisor know if they have any reason to suspect they
 might be at a higher-than-normal risk in relation to substances hazardous
 to health (e.g., medical issues, new or expectant mother etc.).

7 Risk Assessment (COSHH Assessment)

- 7.1 A COSHH assessment must be completed before work with hazardous substances begins.
- 7.2 The purpose of the COSHH assessment is to identify the hazards and to take practical measures to prevent, or adequately control, exposure to hazardous substances.
- 7.3 COSHH assessments must be completed by a competent person, that is, with knowledge and understanding of the hazards, environment and activity being assessed; and trained in completing COSHH assessments.
- 7.4 A safety data sheet ("SDS") for a hazardous substance in itself, is not a COSHH risk assessment but where available should be used as part of that assessment. Harmful substances produced by processes that emit dust, fume, vapour mist or gas, such as abrasive wheels and soldering must also be assessed.
- 7.5 The significant findings of COSHH Assessments must be recorded, including the steps being taken to prevent or control exposure. A template to use for COSHH risk assessments is available at:

 https://www.ulster.ac.uk/peopleandculture/employee-benefits/health-and-safety/forms.
- 7.6 COSHH Assessments must be reviewed regularly (normally annually), or if;
 - a) there is reason to suspect that it is no longer valid:
 - b) there has been a significant change in the work to which it relates; or
 - c) the results of any monitoring carried out shows it to be necessary.
- 7.7 <u>COSHH Essentials</u> sets out basic advice which can give practical help on risk assessments with advice in industry-specific 'direct advice sheets' and 'generic control guidance sheets'. The COSHH e-tool in Essentials is also particularly useful for assessment of activities with multiple substances.

8 Prevention or Control of Exposure

- 8.1 Exposure of staff or others (e.g. members of the public, visitors, contractors etc.) to substances hazardous to health must be **prevented** or, where this is not reasonably practicable, adequately controlled.
- 8.2 Where exposure cannot be prevented, the **use of a less hazardous substance or process** should be considered.
- 8.3 Where it is not reasonably practicable to prevent exposure or substitute with a less hazardous substance/process, **protective measures** should be applied in the following priority order:

- a) the design and use of appropriate work processes, systems and engineering controls and the provision and use of suitable work equipment and materials:
- b) the control of exposure at source, including adequate ventilation systems and appropriate organisational measures; and
- c) where adequate control of exposure cannot be achieved by other means, the provision of suitable PPE in addition to the measures required by subparagraphs (a) and (b) above.
- 8.4 The measures referred to above should include;
 - a) arrangements for the safe handling, storage and transport of substances hazardous to health, and of waste containing such substances, at the workplace (e.g., COSHH cabinets);
 - b) suitable maintenance procedures;
 - c) reducing, to the minimum required for the work concerned
 - i. the number of persons subject to the exposure,
 - ii. the level and duration of exposure, and
 - iii. the quantity of substances hazardous to health present at the workplace;
 - d) the control of the working environment, including appropriate general ventilation; and
 - e) appropriate hygiene measures including adequate washing facilities.
- 8.5 PPE provided as part of controls to prevent exposure must comply with the current Personal Protective publication HSG53 "Respiratory protective equipment at work ~ A practical guide":

 http://www.hse.gov.uk/pubns/priced/HSG53.pdf
- 8.6 Monitoring and supervision must be undertaken to ensure prevention and control measures are followed.

9 Maintenance, Examination and Testing of Control Measures

- 9.1 Machinery and equipment used with, or which can emit hazardous substances such as abrasive wheels, powered saws or welding equipment must be maintained in an efficient working condition and maintained in accordance with the manufacturer's instructions.
- 9.2 Where engineering controls are provided such as fume cupboards, gas detection systems and local exhaust ventilation (LEV), they must be subject to appropriate regular maintenance and appropriate statutory thorough examination and testing.
- 9.3 Where RPE is used, the respirator must be suitable with the necessary level of protection for the hazardous substance. Users must be face fit tested by a competent person for tight fitting masks (including disposables) and training in their use. See https://www.hse.gov.uk/respiratory-protective-equipment/index.htm
- 9.4 Records of examinations and tests carried out and of repairs carried out as a result of those examinations and tests, or a suitable summary thereof must be kept available for at least 3 years from the date on which it was made.

- 9.5 PPE, including protective clothing, must be:
 - a) properly stored in a well-defined place;
 - b) checked at suitable intervals; and
 - c) when discovered to be defective, repaired or replaced before further use.
- 9.6 PPE which may be contaminated by a substance hazardous to health must be removed on leaving the working area and kept apart from uncontaminated clothing and equipment. Such equipment should be subsequently decontaminated and cleaned or, if necessary, safely disposed (see 14.1).

10 Monitoring Exposure

- 10.1 Monitoring of hazardous substances should be undertaken when the risk assessment indicates that:
 - a) it is requisite for ensuring the maintenance of adequate control of exposure e.g., gas detection;
 - b) when you need to show that control equipment or PPE is working well enough, or you need to show compliance with a Workplace Exposure Limit ("WEL"):
 - c) following reports of ill health potentially due to exposure.

Where substances have been classified as carcinogens, mutagens or asthmagens, to comply with the COSHH Regulations, exposure must be controlled to 'as low as is reasonably practicable' ("ALARP").

WELs are GB occupational exposure limits approved by HSE. They are set to help protect workers' health. WELs are concentrations of hazardous substances in the air, averaged over a set period of time. The WELs are set out in EH40 Work Exposure limits can be found at: https://www.hse.gov.uk/coshh/basics/exposurelimits.htm

- 10.2 Suitable records, or a summary thereof, of monitoring must be maintained and kept available.
- 10.3 Occupational hygiene monitoring can be requested from HSW, see: https://www.ulster.ac.uk/peopleandculture/employee-benefits/health-and-safety/forms

11 Health Surveillance

- 11.1 Health surveillance is primarily intended to protect individual employees by early detection of adverse health changes which may be due to exposure to hazardous substances in the workplace. It should not be confused with general health screening or health promotion.
- 11.2 COSSH assessment should consider whether health surveillance is appropriate e.g. where a substance is known to cause occupational asthma or severe dermatitis.

- 11.3 Health surveillance is appropriate when:
 - there is a disease associated with the substance in use (e.g. Asthma, Dermatitis, Cancers);
 - it is possible to detect the disease or adverse change and reduce the risk of further harm;
 - the conditions in the workplace make it likely that the disease will appear.
- 11.4 Managers must refer staff requiring health surveillance to the Occupational Health Team before potential exposure.

12 Information, Instruction and Training

- Members of staff likely to be exposed to a substance hazardous to health must be provided with suitable and sufficient information, instruction and training.
- The information from COSHH risks assessments must be passed on from line managers to their staff or others who may be exposed (see also section 7.3).
- 12.3 COSHH assessments and accompanying SDS should be readily accessible to those who use/are exposed to the substances.
- 12.4 Any necessary signage, for example on stores or cabinets containing hazardous substances or materials to control access should be put in place.
- The Risk Assessment may also identify information, instruction and training required for non-employees (e.g., students, contractors) who may be at risk from substances hazardous to health.
- 12.6 Managers are required to provide their staff with suitable information, instruction and training about:
 - The nature of the substances they work with or are exposed to:
 - The risks created by exposure to those substances; and
 - The precautions they should take.
- 12.7 Managers should give sufficient information and instruction on:
 - Control measures and how to use them;
 - The use of any PPE and clothing (including donning/putting on and doffing/removing PPE);
 - The importance of good occupational hygiene and handwashing;
 - Availability and use of barrier creams where appropriate;
 - The results of any exposure monitoring or health surveillance; and
 - Emergency procedures.
- 12.8 When a contractor comes on site, they need to know what the risks are and how you are controlling them. If they are bringing hazardous substances onto your premises, they must share information on how they will prevent harm to those on campuses.
- 12.9 COSHH Awareness and COSHH risk assessment training is provided by HSW see the Learn Portal for details of this training.

13 Accident, Incident and Emergency Arrangements

- 13.1 Effective procedures must be established to cover accidents, incidents and/or emergencies related to the presence of a substance hazardous to health at the workplace. This includes:
 - suitable means of warning to enable appropriate response;
 - appropriate first-aid facilities and necessary equipment (e.g., spill containment kits);
 - sharing of these plans with those who could be affected;
 - ensuring availability of COSHH risk assessments, inventories of substances and safety data sheets.

14 Disposal

- 14.1 Hazardous substances or materials for disposal can include those generated or no longer required such as machinery coolants, oils, lab chemicals, sharps, clinical/infectious waste (not an exhaustive list).
- 14.2 Where a safety sheet exists for a hazardous substance it will contain information on safe disposal to follow.
- 14.3 Disposal of hazardous substances must comply with the Hazardous Waste Regulations (NI) 2005. Where required a licensed waste carrier must be used for safe disposal for more information on complying with waste regulations go to: Moving and transferring hazardous waste | nibusinessinfo.co.uk

15. Resources

http://www.hse.gov.uk/pubns/priced/I5.pdf

https://www.hse.gov.uk/coshh/essentials/index.htm

http://www.hse.gov.uk/pubns/priced/HSG53.pdf

https://www.hse.gov.uk/respiratory-protective-equipment/index.htm

https://www.hse.gov.uk/coshh/basics/exposurelimits.htm

https://www.hse.gov.uk/coshh/resources.htm

https://www.hse.gov.uk/chemical-classification/labelling-packaging/hazard-symbols-hazard-pictograms.htm