

MEASURING AND MONITORING OF OCCUPATIONAL HAZARDS PROCEDURE

Policy Name – Measuring and Monitoring of Occupational Hazards Procedure	
Version number: 1	
Policy Owner	Policy Author/Reviewer
Jimmy Fenton Health, Safety and Wellbeing	Emma Toner
Approving body	Date of approval
Vice Chancellor/SLT	April 2025
	Equality Screened
	In progress
	Next Review date
	April 2027
<p>Queries relating to this document should be directed to the Policy Owner – Jimmy Fenton w.fenton@ulster.ac.uk OR healthandsafety@ulster.ac.uk</p> <p>This document can be made available on request, in alternative formats and in minority languages to meet the needs of those who are not fluent in English.</p>	



HEALTH AND SAFETY

Measuring and Monitoring of Occupational Hazards

Originally Issued	14 February 2012 (UUHSW11)	Contact	HSW
Latest Issue	April 2025	Status	Current
Approved by	Vice Chancellor/SLT	Next review date	April 2027
<p>The current version is available on the Health & Safety website at: Health, Safety and Wellbeing Policies and Procedures - Ulster University</p>			

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1. PURPOSE

The purpose of this procedure is to outline the circumstances in which measuring and monitoring may be appropriate for occupational hazards and the process line managers can follow to request measuring and monitoring within their school/ faculty or department.

2 SCOPE & COMMENCEMENT

- 2.1 This procedure applies to all areas of operation within the University, with effect from April 2025.
- 2.2 The procedure covers monitoring of airborne contaminants, noise, ventilation, thermal environment, vibration, lighting, ionising and non-ionising radiation and an analysis / identification of substances to which staff, students, contractors and visitors may be exposed to on University premises or as part of the University's undertaking.
- 2.3 Measuring and Monitoring techniques may include a range of static, background sampling or personal sampling.
- 2.4 Whilst the procedure applies to contractors, it is up to the contractor to manage their own risk and should be managed under the management and control of contractor's procedure.

3 BACKGROUND

- 3.1 Occupational measuring and monitoring is used to identify air borne contaminants and other health hazards as listed in section 2.2. These have the potential risk for employees to develop occupational diseases and/ or ill health, to include but not limited to:
 - chronic obstructive pulmonary disease (COPD)
 - occupational asthma
 - dermatitis
 - silicosis
 - noise induced hearing loss
 - vibration (hand arm vibration, white finger, or full body vibration)

4 DEFINITIONS

Measuring and Monitoring	The use of valid and suitable techniques to derive a quantitative estimate of the exposure of employees to a hazard. Often monitoring will be with regard to a substance which is hazardous to
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	<p>health, e.g. asbestos, lead, solvents etc. However, it may also involve measuring hazards presented by noise, ionising or non-ionising radiation or the thermal environment.</p>
Static Sampling	<p>Static (or background) sampling involves locating one or more sampling devices in a fixed work location to determine the contaminate level within the area.</p>
Personal Sampling	<p>Personal sampling measures an individual's exposure to hazardous substance(s). The personal sample is collected through the individual wearing a sampling device near their 'breathing zone' (near the nose and mouth).</p>
Health Surveillance	<p>'Health surveillance is a legal requirement to monitor an individual's health in specific circumstances when there is still some residual risk to worker's health despite the control measures you may have put in place, and they are likely to be exposed to:</p> <ul style="list-style-type: none"> ▪ <u>noise</u> ▪ <u>vibration</u> ▪ <u>substances that are hazardous to health</u> <p>Health surveillance - Understand what type your business needs (hse.gov.uk)</p>
Medical Surveillance	<p>'Medical Surveillance must be used where there could be exposure to a certain high hazard substances or agents. A doctor appointed by HSE must do the medical surveillance, except for some lower risk asbestos work. This includes work with:</p> <ul style="list-style-type: none"> ▪ <u>asbestos</u> ▪ <u>lead</u> ▪ <u>ionising radiation</u> ▪ <u>compressed air</u> ▪ <u>COSHH</u> <p>Health surveillance - Understand what type your business needs (hse.gov.uk)</p>

Relevant Persons	Relevant Persons may include departmental managers, academic supervisors, technicians, or heads of school.
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5 KEY LEGAL REQUIREMENTS

5.1 The following legislation requires employers to carry out appropriate occupational measuring and monitoring:

- The Health and Safety at Work (NI) Order 1978 requires employers to fulfil their duty to ensure so far as is reasonably practicable the health, safety, and welfare of their employees and those not in their employment (contractors/visitors/students) that may be affected through workplace risks.
- Management of Health and Safety at Work Regulations (NI) 2000 requires employers to identify the risks that employees, contractors, and members of the public may face and take steps to control or mitigate those risks through a formal risk assessment process.
- Control of Substances Hazardous to Health Regulations (NI) 2003 (“COSHH”) requires employers to assess the risks that arise from the use of hazardous substances. This will include any arrangements to deal with accidents, incidents, or emergencies. The legislation also requires employers to prevent, or if this is not reasonably practicable, control exposure to such substances and to provide staff with information, instruction and training about the risks, steps and precautions the employer has taken to control these risks.
- The Control of Noise at Work Regulations (NI) 2006 requires employers to assess the risks to employees from noise at work, take action to reduce noise exposure, provide employees with hearing protection, ensure legal limits on noise exposure are not exceeded, provide employees with information, instruction, and training and to carry out health surveillance where there is a risk to health.
- The Control of Asbestos Regulations (NI) 2012 places legal duties on employers responsible for licensable and non-licensable work with asbestos. They also place a specific duty to manage asbestos on the owners and/or those responsible for maintenance in non-domestic premises.

- The Control of Vibration at Work Regulations (NI) 2005 requires employers to assess and identify measures to eliminate or reduce risks from exposure to hand-arm vibration so that you can protect your employees from risks to their health. Where required, the employer must ensure that control measures to reduce vibration are properly applied and that information, training and health surveillance are applied.
- The Ionising Radiations Regulations (NI) 2017 require employers to keep exposure to ionising radiations as low as reasonably practicable. Exposures must not exceed specified dose limits. Restriction of exposure should be achieved first by means of engineering control and design features. Where this is not reasonably practicable employers should introduce safe systems of work and only rely on the provision of personal protective equipment as a last resort.

6 RESPONSIBILITIES

- 6.1 Please refer to the main Health, Safety and Wellbeing policy on the University's website for further details on roles and levels of responsibility using the link below.

[Health, Safety and Wellbeing Policy \(ulster.ac.uk\)](http://ulster.ac.uk/Health_Safety_and_Wellbeing_Policy)

Relevant Persons

(See definitions section 4)

Relevant persons must ensure that:

- Suitable and sufficient risk assessments are conducted and identify areas of risk.
- Occupational measuring and monitoring requests are authorised.
- They engage with the HSW team with completed request forms (**Appendix 1**) to initiate occupational measuring or monitoring.
- They provide the risk assessment and necessary background information on a timely basis to supplement the measuring or monitoring request.
- They meet any costing involved to undertake measuring or monitoring.
- They liaise with the occupational health department to undertake health surveillance and medical surveillance checks as determined by the risk assessment and measuring/monitoring results.
- Employee's health and medical surveillance checks, where applicable, remain up to date.
- They hold records in accordance with the UU retention policy.

Health Safety and Wellbeing (“HSW”) Team

The HSW team will:

- Provide a basic measuring or monitoring service. Where the measuring/monitoring is outside the scope of the service that can be offered by HSW they can, on request, source this from an external provider. In such circumstances it is highly likely that there will be a cost involved. This cost will be met by the area concerned.
- Upon completion of any measuring or monitoring, a report will be issued that details any measuring or monitoring that was undertaken and the results. Where appropriate, detailed recommendations to reduce exposure will also be given.
- Provide health and safety advice and support to schools, faculties, and departments on the measuring/monitoring processes to ensure procedural, legal, and best practice compliance.
- Provide management with the relevant health and safety training.
- Assist with queries relating to this procedure.

Occupational Health

Occupational Health will:

- Assist with health surveillance or medical surveillance programmes, where the risk assessment and measuring/monitoring determines the requirement, including baseline assessments, continuous monitoring, and reactive monitoring.
- Instruct and advise schools, faculties, and departments on best practice information.

7 OCCUPATIONAL MEASURING AND MONITORING

7.1 Occupational Measuring and Monitoring may be needed in any of the following circumstances:

- As part of the risk assessment process;
- To ensure legal limits are not exceeded;
- To determine the extent and type of any control measure needed; or
- To ensure the continued effectiveness of control measures.

7.2 Occupational measuring and monitoring can be accessed by completing the Request Form (see **Appendix 1**) and email completed forms to the HSW team at: healthandsafety@ulster.ac.uk.

Completion of the Occupational Exposure Request Form

1. Please complete this form as fully as possible and pass it to your Head of School / Department for authorisation. The form should be emailed to the HSW team (see section 7.2). You should attach all relevant risk assessments, hazard data sheets or other technical information.
2. Upon receipt the HSW team may need to contact you for clarification or further information. It may also be necessary to arrange for an initial visit by a member of the HSW team to assess the scope of the project. For all visits you or the alternative contact person should be available in case further clarification is required.
3. When the HSW team have sufficient background information we will contact you to plan for a mutually suitable time and date for a visit to the area to carry out a qualitative assessment or objective measurement of the hazards identified. This will normally be arranged so that typical and / or worst-case conditions, e.g. dust, noise, can be assessed.
4. If objective measurements are required, then specialist measuring equipment may need to be used. The HSW team will determine if we have the capability to undertake the monitoring in-house. This may require some or all of those exposed to wear personal monitoring equipment such as personal air sampling equipment, noise dosimeters, etc. Depending on the complexity of the measurements and the risks to health, several visits may be necessary over a period of time.
5. Following the measuring/monitoring exercise, a report or email will be issued by the HSW team detailing assessment criteria, results, conclusions, and recommendations, including specialist advice on control measures.
6. Costs of providing the measuring or monitoring service in-house are normally met by the HSW team. The cost of buying in the service will be met by the relevant functional area. The responsibility, including costs, for implementing the recommendations lies with the Head of School / Department.

If there are any queries on this service, please contact HSW team at: healthandsafety@ulster.ac.uk

Occupational Exposure Request Form

Appendix 1

Please complete the following form, attach relevant risk assessment form(s), hazard data sheets & other technical information and return to the Health, Safety and Wellbeing Team – healthandsafety@ulster.ac.uk

1. REQUEST FROM (please provide an alternative contact where possible)

Name:	Tel: No.	Room / Campus	School / Department

2. SURVEY LOCATION

Room / Campus	Area:
Briefly describe the process which needs monitoring.	

3. PLEASE INDICATE THE TYPE(S) OF MONITORING REQUIRED

Air sampling for gas/vapour <input type="radio"/> Air sampling for dust/fume <input type="radio"/> Noise (hazard/nuisance) <input type="radio"/> Ventilation (general/local) <input type="radio"/> Thermal environment (comfort/stress) <input type="radio"/> Lighting / non-ionising radiation <input type="radio"/> Ionising Radiation <input type="radio"/> Analysis/identification of substances <input type="radio"/> Other (please specify) <input type="radio"/>	Additional Information
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4. AUTHORISATION BY HEAD OF SCHOOL / DEPARTMENT

Name:	Date:	Tel: No.