



# HEALTH AND HYGIENE MANAGEMENT PLAN

## PURPOSE

This management plan supports the *Health and Safety Policy* and *Health and Safety Management Standards* at the University.

Curtin University (Curtin) has a legal requirement to provide, and maintain, so far as is practicable, a working environment in which employees are not exposed to hazards. This plan outlines the process for identifying, assessing, controlling and communicating health risks associated with potential exposure to chemical, physical, biological and ergonomic hazards, in order to prevent occupational illness and disease.

The scope of this plan includes all workers of Curtin University.

## DEFINITIONS

<b>Competent Person</b>	A person with the experience and/or qualifications to undertake a health and hygiene risk assessment.
<b>Exposure</b>	Occurrence of a worker being in contact with a hazard.
<b>Exposure Standard (ES)</b>	Represents the concentration of a particular hazard that must not be exceeded. The exposure standard can be of three forms: 8-hour time weight average; a peak limitation or a short-term exposure limit.
<b>Hazard</b>	A situation that has the potential to harm a person, interrupt business or cause damage to the environment, business reputation or property.
<b>Hierarchy of Control</b>	A range of control measures used to control risk to the lowest reasonably practicable level. In most cases a combination of elimination (most effective), substitution, engineering controls, administrative controls and Personal Protective Equipment (least effective) are chosen to control risks.
<b>NATA</b>	National Association of Testing Authorities.
<b>Qualitative Assessment</b>	Qualitative methods of gathering information such as interviews or observations.
<b>Quantitative</b>	Quantitative methods of gathering information and data such as monitoring.
<b>Risk</b>	The likelihood and consequence of injury or harm occurring.



**Risk Assessment** The overall process of risk identification, analysis and evaluation.

**Similar Exposure Group (SEG)** A group of workers, generally performing the same task for the same period, such that exposure measured on any one person within the group will be representative of the exposure of the whole group.

## 1. ASSESSING AND MANAGING OCCUPATIONAL EXPOSURES

A competent person shall perform the exposure identification, assessment and control process.

### 1.1. HEALTH AND HYGIENE EXPOSURE ASSESSMENT AND MANAGEMENT PROCESS

The assessment and management of health and hygiene hazards follows a well-established process outlined by the Department of Mines, Industry and Safety Regulation:



## 2. DESCRIBE OPERATION

To describe the operation an initial site and hazard characterisation shall be performed either as the first step or as a part of the exposure assessment.

### 2.1. CHARACTERISATION

The aim of the characterisation process is to develop an initial profile to assist in hazard identification, exposure assessment prioritisation and to monitor employee exposures. The site characterisation shall consider the workplace, workforces, exposure agents, any existing data and current controls.

### 2.2. POTENTIAL OCCUPATIONAL HYGIENE EXPOSURES

Potential occupational hygiene exposures that shall be considered as part of this characterisation include physical, chemical and biological exposures.

### 2.3. SIMILAR EXPOSURE GROUPS

Utilising the information gathered from the characterisation process preliminary Similar Exposure Groups (SEGs) can be defined. Upon completion of the exposure assessment, these SEGs will be formalised.



### 3. IDENTIFY HAZARDS AND CONTROLS

#### 3.1. QUALITATIVE EXPOSURE ASSESSMENT

Qualitative exposure assessments are undertaken and documented at the University. The aim of the assessment is to use the information sourced during the initial characterisation, in conjunction with a Health and Hygiene Risk Assessment Questionnaire, and walk through survey to identify and assess potential exposures. These observations will confirm the SEGs initially defined during characterisation.

The walk through survey will identify existing controls and PPE, activities conducted, worker experience and perception and any potential additive or synergistic effects.

#### 3.2. HEALTH AND HYGIENE RISK REGISTER

The qualitative exposure assessment outcomes shall be summarised for each SEG in the Health and Hygiene Risk Register.

### 4. RISK ASSESSMENT AND EVALUATION

#### 4.1. QUALITATIVE RISK ASSESSMENT AND EVALUATION

Based on the data collected, reviewed and assessed during the qualitative assessment and an estimate of the potential extent of exposures for each SEG is required.

A qualitative risk ranking is then applied to each exposure type of each SEG in accordance with the health and hygiene risk matrix from the [Department of Mines, Industry Regulation and Safety \(DMIRS\) – Preparation of a health and hygiene management plan - guide.](#)

#### 4.2. QUANTITATIVE RISK ASSESSMENT AND EVALUATION

The qualitative exposure assessment will indicate the need to conduct further quantitative assessment. Quantitative exposure assessment shall be completed when the SEG has been identified qualitatively as having a medium, high, extreme or unknown estimated exposure risk.

Personal monitoring will be used to define personal exposures and not static, fixed-place or area monitoring. In some instances, personal monitoring to quantitatively assess exposure may not be applicable and a survey focus method will be utilised.

#### 4.3. ASSESSMENT METHODS AND EQUIPMENT

Methods used for the measurement of personal exposures shall be consistent with relevant legislation and best practice standards.

Equipment used for the measurement of personal exposures shall be appropriate for the method selected and be calibrated and maintained in accordance with the manufacturer's recommendations. Records of calibration and maintenance must be documented for all equipment used.



## External Document

Personal exposure samples shall be collected over a duration representative of normal work activities. Where the sampling period is less than the shift length this can be considered to be representative provided there is not a significant change in activity for the unmonitored period.

Where exposure assessment requires assessment of sampling media, a certified NATA accredited laboratory shall perform the analysis.

All sampling or monitoring must include the collection of sufficient information to facilitate accurate identification of potential problems area and activities through the population of a Sample Record Form.

### 4.4. SAMPLING NUMBERS

Development of a sampling strategy for the quantitative assessment must ensure an appropriate number of samples for each SEG is defined. The number of samples required for the initial Quantitative Assessment is dependent on the population of the SEG and outlined in [DMIRS – Preparation of a Health and Hygiene Management Plan - Guide](#).

### 4.5. MONITORING PROGRAM

Once the sampling required for the SEG has been identified and the desired number of samples determined, a monitoring schedule will be developed. Where exposures are considered frequent and ongoing, the collection of samples should be performed in a random manner.

### 4.6. INTERPRETATION OF RESULTS (STATISTICAL EVALUATION)

Monitoring results are compared against Exposure Standards (ES) by determining the statistical point of the Upper Confidence Limit (UCL) at 95% confidence. In order to report the UCL at 0.05 confidence the following assumptions are made:

- a) The data is lognormal or normal (but preferably lognormal in distribution), and
- b) The geometric standard deviation is less than three.

If either of these two criteria are not met, reporting the UCL may not be viable and the SEG data will require an investigation, which is to be documented in the exposure risk profile. Possible reasons for not meeting the requirement under the statistical parameters include:

- a) The SEG is not well defined and requires splitting or joining to another SEG
- b) Outlier data is skewing the distribution

Based on the outcome of the quantitative data analysis, a SEG's exposure to a particular agent must be assigned a risk level based on the DMIRS health and hygiene risk matrix.

### 4.7. RE-ASSESSMENT OF THE HEALTH AND HYGIENE RISK REGISTER

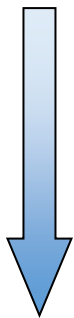
A re-assessment of the Health and Hygiene Risk Register shall be completed every five years. This requires a review of the qualitative assessment, which will determine the need for further sampling.



A SEG may trigger an earlier reassessment if there is an occurrence of occupational illness or disease, a change in the agents or their properties, significant changes to the work environment or practices, when further controls have been implemented or there has been a regulatory change.

## 5. EXPOSURE CONTROL

Once all the health and hygiene hazards are assessed, controls shall be implemented to eliminate or if that is not reasonably practicable, minimise the risk by other means. The Hierarchy of Control, listed below from most effective control (1) to least preferred (5), shall be used to determine the most appropriate risk control measures for each hazard.



1. Elimination (most effective) - removing the hazard
2. Substitution, - substitute as substance, method or material
3. Engineering controls, - separate the hazard from the workplace or people, modify existing machinery or plant or purchase different plant or equipment
4. Administrative controls – develop a safe operating procedure, rotate the workers through the job, worker training; and
5. Personal protective equipment (the lowest level of protection) – respirators, gloves, helmets, safety glasses, safety boots.

Consultation with workers is required in the selection and implementation of control measures in the workplace.

## 5.2. VERIFICATION OF CONTROLS

Verification of controls in place can be completed by exposure monitoring, by fit testing personal protective equipment and through workplace inspections.

## 6. HEALTH SURVEILLANCE

Health surveillance will be managed through the specific work area based on the [Health Surveillance Guideline](#).

## 7. REPORTING

Upon completion of the Health and Hygiene Assessment, a formal report outlining all potential exposures and risk management strategies will be provided to respective areas for action and implementation.

## 8. EXEMPTIONS

The scope of the Health and Hygiene Management Plan does not cover hazards associated with Radiation, Biosafety, Psychosocial and/or Ergonomic.

For all questions relating to Radiation or Biosafety hazards, please contact the Research Office [HazardousMaterials@curtin.edu.au](mailto:HazardousMaterials@curtin.edu.au).

For all questions relating to Psychosocial or Ergonomic hazards, please contact the People Wellness Team [injurymanagement@curtin.edu.au](mailto:injurymanagement@curtin.edu.au).



## 9. RESPONSIBILITIES

### Faculty Business/Functional Area Manager or Equivalent

Faculty Business/Functional Area Managers or Equivalent are responsible for:

- a) Ensuring the implementation of the Health and Hygiene Management Plan in their Faculty/Functional Area.
- b) Retaining risk report provided by the Health and Safety Dept and actioning all recommendations.
- c) Implementing and monitoring controls for occupational exposures in their areas.

### Health and Safety

Health and Safety are responsible for:

- a) Facilitating the development and implementation of the Health and Hygiene Management Plan.
- b) Reviewing Health and Hygiene Management Plan.
- c) Reviewing the Health and Hygiene Risk Register every five years.
- d) Maintaining all records associated with the Plan.
- e) Providing Health and Hygiene Reports to areas, upon completion of assessments.
- f) Assisting areas with training on health and hygiene.
- g) Assisting areas with recommendations relating to health and hygiene controls.

### Health and Safety Representatives

Health and Safety Representatives are responsible for:

- a) Assisting in the implementation of the Health and Hygiene Management Plan in their immediate work area.

## RELEVANT DOCUMENTS/LINKS

Health and Hygiene Risk Assessment Questionnaire  
Health and Hygiene Risk Register  
Health and Hygiene Risk Report  
[Health and Safety Policy](#)  
[Health and Safety Management Standards](#)  
[Health Surveillance Guideline](#)  
[Work Health and Safety Act 2020](#)  
[Work Health and Safety Regulations \(General\) 2022](#)  
[Preparation of a Health and Hygiene Management Plan - Guide](#)  
Sample Record Form

## CONTACT DETAILS

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Approval Authority	Director, Health and Safety