



Health and Safety Guideline

HSG 3.3 Health and Safety in the Design of Infrastructure Projects

1. Purpose

This document provides guidance for workplace health and safety consideration in the design phase of an infrastructure project so that potential health, safety and wellbeing impacts can be managed, and appropriate risk controls incorporated into the design.

2. Scope

This Guideline applies to all health, safety and wellbeing activities of staff, students, visitors (including volunteers and contractors), Council members, and other persons interacting with the University of Newcastle (workers); the operations of staff of University aligned Research Centres and controlled entities; and all activities conducted by or on behalf of the University of Newcastle on and outside of the University's campuses.

3. Guidelines

3.1. Design meetings

Project meetings held during the design phase of an infrastructure project should include workplace health and safety as a standard agenda item to address potential risks during each phase of the project including:

- construction;
- commissioning;
- ongoing maintenance; and
- completion and handover.

Meeting minutes should record all health, safety and wellbeing related discussions, decisions and items for follow up.

3.2. Risk Assessment

The integration of a risk assessment and subsequent control measures in the design phase of an infrastructure project is necessary to eliminate or minimise risks to health, safety and wellbeing throughout the life of the project.

A risk assessment should be completed in accordance with guideline [HSG 3.1: Health and Safety Risk Management](#) and identify the impact on and the requirements for actions in the following areas as a result of the infrastructure project activities:

- Statutory / Legal requirements e.g. licensing, registration;
- Health and Safety Management System (HSMS) documentation;
- Operational and maintenance requirements;
- Emergency procedures / equipment;
- Workplace layout and environment;
- Training; and
- Communication.

Procurement documents for goods and services related to the infrastructure project should specify any regulatory requirements as well as any health, safety and wellbeing controls that have been identified as part of the design phase of the project, and are to be implemented during project completion.

3.3. Design modification

Modifications to approved and final designs should be reviewed by the project team to determine if there could be impacts on the health and safety controls which have been implemented for the infrastructure project so that additional controls can be implemented if necessary.

3.4. Project closure and review

After the infrastructure project has been commissioned and is complete, the health, safety and wellbeing controls identified in the design phase should be reviewed to determine if these have been implemented effectively.

The review will assist in the prevention of errors or omissions which may lead to incidents or injuries, and facilitate continuous improvement and learning for the design of future infrastructure projects.

4. Definitions

In the context of the Health and Safety Management System Framework:

Design	Means a series of activities where an idea is conceived, shaped, developed, produced and then acted upon to produce a designed outcome. It also includes any subsequent alteration of a designed outcome.
Executive Committee	Consisting of the Vice-Chancellor, the Deputy Vice-Chancellors, the Pro Vice-Chancellors, the Chief Operating Officer, Chief People and Culture Officer and the Chief Financial Officer, the University Secretary and the President of Academic Senate.
Infrastructure	The basic physical and organisation structures and facilities (e.g. buildings, roads, power supplies) needed for the operation of the University.
Infrastructure Project	Means the design, construction, development and operation of new infrastructure facilities or the rehabilitation, modernisation, expansion or operation of existing infrastructure facilities
Hazard	A situation, condition, or event, including a person's behaviour, that exposes a worker to a risk to their health or safety during the course of work in a workplace, that has the potential to cause injury, illness or even death or to damage buildings, plant or equipment.
Leader / Supervisor	Any member of the University who is responsible for supervising staff and/or undergraduate or postgraduate students and/or for leading research projects.
Project	Means major capital or plant works such as a new building, significant change to an existing building, facility or grounds, or redesigning/altering an existing item of plant or equipment.
Risk	The likelihood that a hazard will cause harm and the consequence of that harm.
Safe Design	Means the integration of hazard identification and risk assessment methods to eliminate or minimise the risks of injury throughout the life of a product, process or project.
Worker	Includes an employee, conjoint, student on work experience, contractor, sub-contractor, and volunteer. A person is a worker if the person carries out work in any capacity for the University or another person conducting a business or undertaking, including work as: <ul style="list-style-type: none"> (a) an employee, or (b) a contractor or subcontractor, or (c) an employee of a contractor or subcontractor, or (d) an employee of a labour hire company who has been assigned to work in the person's business or undertaking, or (e) an outworker, or (f) an apprentice or trainee, or (g) a student gaining work experience, or (h) a volunteer, or (i) a person of a prescribed class.

5. Responsibilities

A comprehensive list of health, safety and wellbeing responsibilities is provided in the guideline [HSG 1.2: Roles and Responsibilities](#).

Specific responsibilities under this Guideline include:

Executive Committee

- Monitor the design of projects to ensure appropriate risk controls in relation to identified hazards are implemented throughout the project life cycle.

Infrastructure and Facility Services (IFS)

- Undertake workplace health and safety risk assessments during the design phase of a project;
- Hold and facilitate design meetings in accordance with this guideline;
- Provide information on the outcomes of risk assessments to workers who may be affected by the project, including the controls to be put in place to manage any identified hazards; and
- Provide reports to the Executive Committee on the outcomes of design meetings.

Supervisors and Leaders

- Discuss any workplace health and safety implications during the design of a project with affected workers and with Infrastructure and Facilities Services.

Health, Safety and Wellbeing Team

- Provide advice and guidance where required to assist project managers and IFS on potential workplace health and safety risks during the design of a project;
- Provide input to design reviews;
- Provide input to risk assessments when required; and
- Follow up on the implementation of design changes where necessary.

6. References & Related Documents

The following documentation is referenced in, or applicable to this Guideline:

[HSG 1.2: Roles and Responsibilities](#)

[HSG 3.1: Health and Safety Risk Management](#)

7. Amendment History

Version	Date of Issue	Approval	Section(s) Modified	Details of Amendment
1, 2	October 2016	Manager Health and Safety	-	Original versions with latest amendment for HSG 4.4 Health and Safety in the Design of Projects
3	July 2023	CPCO	All	<ol style="list-style-type: none">1. Renamed and renumbered from HSG 4.4 to HSG 3.3 Health and Safety in the Design of Infrastructure Projects2. Updated content in all sections and amended all references from “projects” to “infrastructure projects”3. Added new/renamed Related Documents4. Added Amendment History5. Amended document control header and footer

8. Appendices

Nil