

Original Approval Date: September 1, 2017

Most Recent Approval Date: September 1, 2017

Most Recent Editorial Date: September 1, 2017

Parent Policy: Assignment of Accountability 2.0: Hazard Management

Hazard Identification, Assessment, and Control Procedure

Office of Administrative Responsibility:	Environment, Health & Safety
Approver:	Director, Environment, Health & Safety
Scope:	Compliance with this University policy extends to all academic staff, administrators, colleagues, and support staff as outlined and defined in the Recruitment Policy (Appendix A and Appendix B: Definitions and Categories); undergraduate, graduate and Faculty of Extension students; postdoctoral fellows; emeriti; members of the Board of Governors; visitors to campus, including visiting speakers and scholars; third party contractors; and volunteers.

Overview

This procedure promotes an effective health and safety program when dealing with **hazard** management and ensures preventive and responsive attitudes and behaviors at the University of Alberta (U of A). Health and safety requires shared responsibility among all persons who may be conducting **work** with, or on behalf of, the U of A.

The U of A engages in extensive research, testing, and teaching programs involving **biological, chemical, radiation, physical, and psychosocial hazards**. The acquisition, manipulation, storage, use, and transfer practices involving these hazards are regulated by federal, provincial, and municipal agencies. The U of A must comply with all legislation.

Due to the potential or inherent risks associated with biological, chemical, radiation, physical, and psychosocial hazards; appropriate safe handling, containment, security, and waste processing practices must be developed and implemented prior to commencing work. These practices should be reviewed on a regular basis to ensure they are effective.

The U of A maintains biosafety, chemical safety, radiation safety, physical safety, and psychosocial safety programs. Managed through the Environment, Health & Safety (EHS) portfolio of Risk Management Services, these programs support all research, testing, and teaching involving these materials.

Purpose

All operations within U of A owned and/or operated facilities, or any facility/location where work is being conducted (herein referred to as U of A facilities) must be completed in a manner that protects U of A staff/students, visitors, other persons who could be affected by the work, and the environment. All persons conducting work for the U of A must ensure that their actions and activities comply with all relevant institutional UAPPOL policies and procedures, including the hazard management programs enabled under this procedure, and applicable health and safety legislation.

PROCEDURE

This procedure endorses the creation and maintenance of the following health and safety programs: biological safety program, chemical safety program, physical safety program, psychosocial safety program, and radiation safety program. Each program includes standards, forms, guidelines, and training material in support of hazard identification, assessment, and control. These programs will satisfy the requirements identified in the provincial and federal Acts, Regulations, and Codes applicable to these areas and will encompass all U of A facilities and any other **work site** where U of A staff and students are conducting work. It shall be the collective responsibility of all unit leaders to ensure that all persons conducting work for the U of A are aware of this procedure and that it must be followed.

1. HAZARD ASSESSMENT

Prior to conducting work, **supervisors** -- together with their staff, students, or other persons involved in their work -- must complete a **hazard assessment** for their jobs, tasks, equipment, or projects. The hazard assessment process must be documented. The following steps are required in order to complete a hazard assessment:

- Identify the steps or procedures applicable to the task, job, or project
- Identify the hazards associated with those steps and/or procedures
- Assess the hazards by ranking them according to the U of A risk-ranking matrix
- Identify controls that will help reducing the risk to employees
- Assess the hazards again with the controls in place to determine if the risk ranking has been reduced to an appropriate level

Hazard assessments must be reviewed and updated at regular intervals or when significant changes occur, in accordance with the Alberta *OHS Code*.

2. HIERARCHY OF CONTROLS

Control of hazards must follow the hierarchy of controls as per the Alberta *OHS Act, Regulations and Code*. This hierarchy is a step-by-step process in eliminating or reducing the risk that hazards may pose to employees. In order, the following steps must be considered:

- Elimination of the hazard, or substitution for something less hazardous;
- **Engineering controls** for the hazard, such as a physical barrier or ventilation;
- **Administrative controls** for the hazard, which include training, signage, and safe work practices;
- **Personal protective equipment (PPE)**, which should be considered a last line of defense.

When the hazard cannot be eliminated or controlled using engineering controls, administrative controls, or PPE, a combination of the above must be used. Regardless of the control method used, the U of A community must take timely action to control all hazards and to reduce the risk to employees.

3. PROGRAM FRAMEWORK

The framework for each program is designed around hazard identification, assessment, and control. The goal of these programs is to provide tools, resources, and information to assess and control hazards. Each program may include the following:

- A general program document outlining the scope, purpose, and resources contained within;
- Guidelines, manuals, and best practice documents;

- Information documents and how-to instruction documents;
- Training and education courses and material;
- Safe work practices and procedures;
- Documents required by the legislation such as a code of practice.

4. ADDITIONAL RESPONSIBILITIES:

The responsibilities for health and safety must be met as per Appendix B: Environment, Health and Safety Responsibilities of the Environment, Health and Safety Policy. Additional responsibilities specific to hazard identification, assessment, and control include:

a. SENIOR ADMINISTRATORS

Senior administrators must promote hazard identification, assessment, and control within their faculty/portfolio through appropriate management and oversight. Department chairs, faculty deans and/or vice presidents, directors, and managers must:

- i. Assign a responsible individual, i.e. supervisor, with the authority to implement and maintain all pertinent hazard management and mitigation requirements as per the *Hazard Identification, Assessment, and Control Procedure* and health and safety programs established by EHS.
- ii. Ensure health and safety standards are developed and implemented to support the research, teaching, and service programs operating in their respective areas of authority.

b. PRINCIPAL INVESTIGATORS OR SUPERVISORS

Principal investigators (PI) or designated supervisors are responsible for their research, teaching, testing, or operational activities. As such, principal investigators or supervisors must:

- i. Implement and follow all applicable standard practices developed to support compliance with any pertinent health and safety regulations as per the *Hazard Management Assignment of Accountability*.
- ii. Confirm all applicable hazard management and mitigation requirements are met as per the health and safety programs.
- iii. Implement and follow all applicable health and safety processes and requirements established by EHS and the programs.

c. UNIVERSITY STAFF AND STUDENTS

University staff and students are required to:

- i. Participate in hazard assessments and follow all applicable institutional and on-site training provided regarding health and safety programs.
- ii. Use all appropriate engineering controls, administrative controls, and PPE provided and follow all applicable safety procedures for each work task.
- iii. Disclose all experimental plans and results to their principal investigator or supervisor; staff members and students may not conduct experiments with hazardous materials without the knowledge and approval of their PI or supervisor.

d. ENVIRONMENT, HEALTH & SAFETY

Environment, Health & Safety is required to:

- i. Oversee and maintain the various health and safety programs.
- ii. Provide tools, resources, and expertise to assist all persons conducting work at or on behalf of the U of A.

- iii. Inspect, audit, and review facilities, work practices, and processes in order to improve the health and safety of all persons conducting work at or on behalf of the U of A.

DEFINITIONS

Any definitions listed in the following table apply to this document only with no implied or intended institution-wide use. ▲ Top	
work	An activity involving mental or physical effort done in order to achieve a result. This may include research, learning, and other operational tasks in pursuit of the goals of the U of A.
hazard	A situation, behaviour, condition, or thing that may be dangerous to the environment and pose a risk to a person's safety or health.
biological hazard	Materials of a biological origin or synthetic materials that mimic biological entities, which may adversely affect humans, other animals, plants, or the environment.
chemical hazard	A hazard that involves any element, compound, or other chemical structure that may affect the body through inhalation, ingestion, skin absorption, injection, or contact with the eyes, skin, nose, or mouth.
radiation hazard	A hazard that involves both non-ionizing radiation such as lasers, electromagnetic frequencies, visible light, or infrared and ionizing hazards such as alpha, beta, gamma, and neutron sources.
physical hazard	A hazard that can cause damage to the body, typically through contact. Physical hazards include falls, sharp objects, noise, heat, and hot surfaces, cold and cold surfaces, pinch or crush points, and ergonomic hazards.
psychosocial hazard	A hazard that can affect both physical and mental health. These may include violence in the workplace, fatigue, and stress.
work site	A location where a worker is or is likely to be engaged in any occupation and includes any vehicle or mobile equipment used by a worker in an occupation.
Principal Investigator	A researcher or personal responsible for research.
supervisor	A person who directly or indirectly oversees the work of staff or students. Includes program or facility coordinator, or similar.
hazard assessment	A process used to identify environment, health, and safety hazards and to evaluate the risks associated with job tasks.
engineering controls	The preferred method of hazard control because it may eliminate a hazard by modifying the equipment, chemical or process, or by substituting isolating, enclosing, guarding or ventilating the hazard.
administrative controls	A process to control hazards not eliminated by engineering controls

	(e.g., safe work policies, practices and procedures, job scheduling, job rotations, and training).
Personal Protective Equipment (PPE)	Equipment used or clothing worn by a person for protection from health or safety hazards associated with conditions at a workplace. Personal protective equipment is used when engineering or administrative methods cannot fully control the hazards. Personal protective equipment does not directly control the hazard but it reduces the employee's exposure to the hazard when maintained and used correctly. Often referred to as "the last line of defense."

FORMS

No Forms for this Procedure. [\[▲Top\]](#)

RELATED LINKS

Should a link fail, please contact uappol@ualberta.ca. [\[▲Top\]](#)

[Alberta Law and Legislation](#) (Government of Alberta)

[Alberta OHS Act, Regulations and Code](#) (Government of Alberta)

Appendix I - Biosafety Management (University of Alberta) (to be created)

Appendix II - Radiation Management (University of Alberta) (to be created)

[Canadian Biosafety Standards and Guidelines](#) (Government of Canada)

[Canadian Nuclear Safety Commission](#) (Government of Canada)

[Department of Environment, Health and Safety](#) (University of Alberta)

[EHS Policy and Appendices](#) (University of Alberta UAPPOL)

[Hazard Management Assignment of Accountabilities](#) (University of Alberta UAPPOL)

[Justice Laws Website](#) (Government of Canada)

[Risk Management Policy](#) (University of Alberta UAPPOL)