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Parent Policy: Health, Safety, and Environment Policy

## Hazard Identification, Assessment, and Control Procedure

### Appendix A: Additional Requirements for Working with Regulated Biohazardous or Biological Materials

<b>Office of Administrative Responsibility:</b>	Health, Safety and Environment
<b>Approver:</b>	Director, Health, Safety and Environment (Chief Environment, Health and Safety Officer and institutional Human Pathogens and Toxins Act Designated License Holder)

#### Overview

The University of Alberta engages in extensive research, testing, and teaching programs involving biological and/or **biohazardous materials**. The acquisition, manipulation, storage, and transfer of these materials are highly regulated by several federal agencies. The primary regulatory agencies involved in **biosafety** in Canada are the Public Health Agency of Canada, Canadian Food Inspection Agency, Environment and Climate Change Canada, and Health Canada; however, several other agencies are also involved.

Due to the potential or inherent risks associated with biological and/or biohazardous materials, appropriate safe handling, **containment**, security and waste processing procedures must be developed and implemented prior to commencing work with these materials. This document applies to all persons handling, storing, or manipulating biological materials within University of Alberta managed facilities (herein referred to as University of Alberta facilities).

The University of Alberta maintains a biosafety program within the scope of the broader Health, Safety and Environment Management System (HSEMS) managed through Health, Safety and Environment (HSE) to support all research, testing, and teaching programs involving these materials. The institutional Biosafety Officer oversees and maintains the biosafety program to ensure program components, services, and tools remain relevant to the activities being conducted within University of Alberta facilities and supports compliance with all pertinent regulations. In addition, to support research, teaching, and testing programs that specifically utilize materials that fall under the regulatory authority of the Human Pathogens and Toxins Act (HPTA), the University of Alberta maintains an institutional license with the Public Health Agency of Canada.

#### **Purpose**

All **regulated biological material** in use or stored within University of Alberta facilities must be handled and/or maintained in a manner that protects both University personnel (including staff, students, and visitors) and the environment from exposure. All persons handling, storing, or manipulating these materials must ensure their actions and activities comply with all relevant institutional UAPPOL policies and procedures and biosafety legislation.

This procedure outlines the processes required to be eligible to use regulated biological materials in University of Alberta facilities and ensure inclusion within the institutional biosafety program and HPTA license, as required.

## PROCEDURE

### 1. BASIC REQUIREMENTS

**Principal investigators, supervisors**, programs and/or facilities utilizing biological materials must

- a. register all University of Alberta facilities in use with HSE in the ARISE database.
- b. maintain an up-to-date list of the biological materials in use or being stored as part of their HSE ARISE lab registry.
- c. update their HSE ARISE lab registry when changes occur to the biological materials in use, personnel involved, or locations at which the activities with these materials is occurring. At a minimum, registries must be reviewed and updated annually.
- d. report all transfers of regulated biological materials to or from University of Alberta facilities to the Biosafety Officer.

### 2. ADDITIONAL RESPONSIBILITIES:

#### a. FACULTIES AND DEPARTMENTS

All department and faculty operated teaching programs, facilities, and/or services that use or store regulated biological materials must have appropriate management and oversight. Department Chairs and/or Faculty Deans 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 applicable biosafety and **biosecurity** processes established by HSE and the biosafety program, to each relevant course, facility and/or location.
- ii. ensure **biosecurity 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 or designated supervisors are responsible for the biological materials they choose to purchase, acquire, or create as part of their research, teaching, or testing activities. As such, principal investigators or supervisors must

- i. participate in and follow all applicable institutional and on-site training provided regarding the use and handling of biological and biohazardous materials.
- ii. implement and follow all applicable departmental and/or faculty standard practices developed to support compliance with any pertinent biosafety regulations as per the *Hazard Management Assignment of Accountability*.
- iii. confirm all applicable hazard management and mitigation requirements are met as per the *Hazard Identification, Assessment, and Control Procedure*
- iv. implement and follow all applicable biosafety and biosecurity processes and requirements established by HSE and the biosafety program.

#### c. UNIVERSITY STAFF AND STUDENTS

University staff and students handling, storing or manipulating regulated biological materials are required to

- i. participate in and follow all applicable institutional and on-site training provided regarding the use and handling of biological and biohazardous materials.

- ii. use all appropriate personal protective equipment provided and follow all applicable safety procedures for each work task.
- iii. disclose all experimental plans and results to their principal investigator or supervisor; no staff member or student may conduct experiments with any hazardous materials without the knowledge and approval of their PI or supervisor.

## **DEFINITIONS**

Definitions should be listed in the sequence they occur in the document (i.e. not alphabetical).

Any definitions listed in the following table apply to this document only with no implied or intended institution-wide use. <a href="#">▲Top</a>	
<b>Biohazardous materials</b>	Materials of biological origin or synthetic materials that mimic biological entities and might induce adverse conditions to humans, other animals, plants, or the environment. These materials include prions, whole organisms of pathogenic microbes (e.g. viruses, bacteria, fungi), ecto- and endo-parasites, their genetic materials (natural or synthetic), and toxins or gene products, as well as the tissues or fluids derived from living organisms that harbor or might harbor such material.
<b>Biosafety</b>	Containment principles, technologies, and practices that are implemented to prevent unintentional exposure to infectious material and toxins, or their accidental release.
<b>Containment</b>	Infrastructure and operating procedures designed to limit the inadvertent release of hazardous materials into the surrounding area
<b>Regulated biological materials</b>	Any biological material whose use or possession is regulated by federal or provincial legislation, or international agreements.
<b>Principal Investigator</b>	A researcher or person responsible for a research program and its personnel.
<b>Supervisor</b>	A person who has charge of a work site or authority over a worker
<b>Biosecurity</b>	Security measures designed to prevent the loss, theft, misuse, diversion, or intentional release of regulated biological materials, pathogens, toxins, or other related assets (e.g., personnel, equipment, non-infectious material, animals and associated information)
<b>Biosecurity standards</b>	Minimum security infrastructure and processes developed to address institutional and regulatory biosecurity requirements.

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Health, Safety, and Environment Policy

<https://policiesonline.ualberta.ca/PoliciesProcedures/Policies/Health-Safety-and%20Environment-Policy.pdf>

Biosafety Guidelines (University of Alberta)

<https://www.ualberta.ca/human-resources-health-safety-environment/media-library/health-safety-environment/documents/biosafetyguidelines.pdf>

Canadian Biosafety Standards (Public Health Agency of Canada)

<https://www.canada.ca/en/public-health/services/canadian-biosafety-standards-guidelines/second-edition.html>

Human Pathogens and Toxins Act (Public Health Agency of Canada)

<https://lois-laws.justice.gc.ca/eng/acts/H-5.67/FullText.html>

Health of Animals Act (Canadian Food Inspection Agency)

<https://laws-lois.justice.gc.ca/eng/acts/h-3.3/>

Plant Protection Act (Canadian Food Inspection Agency)

<https://laws-lois.justice.gc.ca/eng/acts/P-14.8/>

Seeds Act (Canadian Food Inspection Agency)

<https://laws-lois.justice.gc.ca/eng/acts/s-8/>

New Substances Notification Regulations (Organisms) (Environment and Climate Change Canada)

<https://laws-lois.justice.gc.ca/eng/regulations/SOR-2005-248/page-1.html>