

# Biological Safety

## 1. GENERAL

To protect employees and the environment from contamination with hazardous biological materials and to comply with applicable laws and guidelines, each component shall develop and implement an effective biological safety program, as necessary. The program must also include provisions for assigning responsibilities to review and approve experimental protocols involving identified biohazardous materials.

## 2. REQUIREMENTS

### 2.1 Each component with biological materials should

2.1.1 Identify, document, and analyze workplace hazards associated with biological materials

2.1.2 Develop and publish standard operating procedures to reduce risk to employees, students, and visitors for identified hazards

2.1.3 Provide and document training to employees, students, and visitors in safe operating procedures for identified hazards

### 2.2 The biological safety program shall address the issues of safe and proper shipment, storage, and handling of identified biohazardous materials.

#### 2.2.1 Biohazardous materials include the following:

- Etiologic agents which may cause disease in humans, animals or plants
- Human body fluids or tissues (e.g. bloodborne pathogens)
- Agents and molecules involved with recombinant DNA biotechnology and genetic manipulation
- Animals infected with zoonoses
- Items contaminated with etiologic agents or human body fluids or tissues

2.2.2 For the purpose of complying with Federal shipping regulations, biohazardous materials shall also include select toxins identified by the Centers for Disease Control and Prevention (42 CFR 72).

2.2.3 Handling procedures should follow the guidelines listed in the latest edition of the CDC/NIH "Biosafety in Microbiological and Biomedical Laboratories."

- 2.3 The biological safety program must ensure compliance with State regulations for the treatment and disposal of medical waste or special waste from a health care-related facility (25 TAC 1.131-137 and 30 TAC 330.1001-1010). Educational institution research laboratories, clinics, and biomedical research laboratories are included in the definition of a health care-related facility.
- 2.3.1 The categories of waste covered by these regulations are
- Animal waste
  - Bulk human blood, bulk human blood products, and bulk human body fluids
  - Microbiological waste (e.g., discarded cultures, culture dishes)
  - Pathological waste
  - Sharps
- 2.3.2 Approved methods of treatment prior to disposal are
- Chemical disinfection
  - Incineration
  - Encapsulation (sharps)
  - Steam disinfection
  - Thermal inactivation
  - Chlorine disinfection/maceration
  - Moist heat disinfection
- 2.3.3 Container labeling and record keeping requirements described in the State regulations must be implemented.
- 2.4 The biological safety program must ensure compliance with the NIH Guidelines for Research Involving Recombinant DNA Molecules [Federal Register, March 12, 1996 (61 FR 10004) and updates].
- 2.5 Each component must evaluate the need to implement a bloodborne pathogen program in compliance with 25 TAC Chapter 96, Bloodborne Pathogen Control.

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Contact for Interpretation

Office of Risk Management and Safety

History

New standard

Recommendation

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Chair, Risk Management and Safety Council

Legal Sufficiency

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General Counsel

Approval

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Director of Office of Risk Management and Safety