

 <p>Institutional Biosafety Committee Guiding Principles and Procedures</p>	<p>Effective: 2011</p> <p>Revised: June 13, 2014, October 2016, August 2021, October 2022, February 2023</p>
<p>Title: Biohazard Waste, Containment and Shipping</p>	<p>Page 1 of 3</p>

1. Biological Waste

Appropriate waste handling is discussed in the NIH Guidelines and the BMBL. General guidance for treatment of biohazardous waste follows.

Animals contaminated with biohazards (whole or parts), contaminated bedding, contaminated shipping containers, contaminated feeds or similar materials must be rendered non-hazardous prior to disposal. Pathological waste can also be picked up by an approved vendor and properly disposed. Contact the [University Police & Safety Office](#) (UP&SO) for information on this service.

Environmental Health and Safety

The Environmental Health & Safety unit assists with maintaining compliance with the federal, state and local regulations associated with environmental, chemical and radiological issues. Working in conjunction with faculty, staff and students, this unit promotes a safe working environment in laboratory spaces as well as other areas on campus. The staff assists with the proper collection and management of hazardous materials, accomplishing this through a cooperative effort with the University community.

Report a Material Spill
Please call (701) 231-7759 or 701-231-8998

[Request for Hazardous Waste Pick-up](#)

1.1. Infectious Agents

Materials involving infectious agents must be rendered non-hazardous before disposal. Refer to the UP&SO SOP – Biosafety Manual for more information.

1.2. Human blood, bodily fluid, and tissue waste

Waste of human origin must be rendered non-hazardous before disposal. Options for disposal can be arranged through the UP&SO. Refer to the UP&SO SOP – Blood-borne Pathogen Exposure Control Plan for more information.

1.3. Plant Waste

Plant waste generated in BL2-P and BL3-P projects must be made non-viable before disposal. This includes all transgenic material.

1.4. Recombinant and Synthetic Nucleic Acids

This includes waste products from laboratory research procedures involving recombinant and synthetic nucleic acids in plasmids, viral vectors, organisms used to propagate recombinant and synthetic nucleic acids, cell cultures, as well as naked DNA from polymerase chain reaction (PCR) and sequencing reactions. It also includes tissue and cells harvested from animals containing recombinant and synthetic nucleic acids (e.g. transgenic animals). All of this waste must be rendered non-hazardous before disposal. Options for disposing can be arranged through the UP&SO.

More information can be found here from the CDC for safe practices:

[Biosafety in Microbiological and Biomedical Laboratories \(BMBL\) 6th Edition](#)

2. Facility Issues

2.1. Biological Safety Cabinets and Laboratory Ventilation

Biosafety cabinets must be certified annually or when moved. Certification, maintenance and repair of cabinets and associated ventilation in all facilities are provided by an outside vendor and arranged by departments or research units (USDA). PIs and laboratory personnel are prohibited from changing HEPA filters and from performing maintenance on the cabinets.

2.2. Insect and Rodent Control

Insect and rodent control is managed through the NDSU Facilities Management (FM) department.

For USDA facilities, insect, weed and fungus control can be requested by submitting an application-request form from the AES Greenhouse Complex.

<http://www.ag.ndsu.edu/greenhouse/pesticide-application-request-form>

2.3. Autoclaves

Autoclave standard operating procedures as well as autoclave performance verification information is available on the UP&SO website. Biological indicators are available to test autoclave function.

https://www.ndsu.edu/police_safety/environmental_health_and_safety/biological_safety/

3. Packaging and Shipping Dangerous Goods

Transport of human and animal infectious agents, diagnostic specimens, recombinant or synthetic nucleic acid molecules contained in an organism or in a viral genome shall be shipped under applicable regulations of the U.S. Postal Service (39 CFR Part 3); the U.S. Department of Agriculture (9 CFR, Subchapters D and E; 7 CFR Part 340); and/or the U.S. Department of Transportation (49 CFR Parts 100-185).

Various regulatory requirements may pertain to the importation, exportation, or domestic transfer of a wide variety of potential biological agents.

Shipments of transgenic organisms are regulated by the office of Animal and Plant Health Inspection Services (APHIS) at the USDA. Regulations and permitting requirements can be located on the following website: www.aphis.usda.gov/biotechnology/index.shtml

Shipments containing dry ice may be subject to additional regulations.

For information on shipping biological agents contact the Centers for Disease Control and Prevention at <http://www.cdc.gov/od/eaipp/shipping/>

CDC Training

Packing and Shipping Dangerous Goods: What the Laboratory Staff Must Know

<https://www.train.org/cdctrain/course/1092665/>

Notify and consult with the UP&SO if you suspect that any of these regulations may apply to your work activities.