

Biohazardous Waste Operating Plan

The purpose and goal of the Biological Waste Program is to ensure that biological waste is handled in a safe, secure manner, and is disposed of properly. In order to achieve this goal, the University will comply with state rules and regulations regarding biomedical waste as outlined in [Chapter 64E-16](#), Florida Administrative Code (F.A.C.). The Biological Waste Program establishes a convenient and economical policy for the disposal of biological waste for the University.

Waste disposal requires well-defined procedures to prevent exposure to pathogens. Improper disposal of biohazardous waste puts everyone at risk as well as jeopardizes the University's waste permits.

In order to prevent unwanted exposure, each Principal Investigator (PI), supervisor, technician and student must be familiar with current waste disposal procedures for biohazardous materials as well as for chemical and radioactive materials.

The Biological Waste Program must be accessible to all. Department representatives, laboratory personnel, PI's, and or supervisors are responsible for ensuring that all employees are trained and familiar with the Biological Waste Program and that all laboratory procedures conform to these requirements.

Permitting

Biomedical waste generators are required to have a biomedical waste generator permit from the Leon County Health Department. The Biological Safety Officer (BSO) applies for and maintains permits for all sites on campus. The BSO also maintains a file for exempt sites on campus that generates less than 25 lbs. in a 30-day time period. All permits are displayed at waste generation sites.

Enforcement and Penalties

Anyone in violation of [Chapter 64E-16 F.A.C.](#), who interferes with, hinders, or opposes any employee in the discharge of his duties, is chargeable with a misdemeanor of the second degree.

If any violation occurs, the Department of Health may deny, suspend, or revoke any biomedical waste permit and/or impose an administrative fine up to \$2500/day.

Types of Biohazardous Waste

In order to have an effective Biological Waste Program, the University has organized the biological waste into seven categories:

General Biohazardous Waste Materials: General biohazardous waste materials are biological wastes that contain, "biological agent(s) or substance(s) present in or arising from the work environment which presents or may present a hazard to the health or well-being of the worker or community." All general biological wastes must be autoclaved or decontaminated by equivalent means to deactivate the biohazardous materials prior to disposal as regular trash.

Biohazardous Waste Containing Non-Human Pathogens: Are biological wastes that contain no human pathogen. Biological waste that is considered non-human pathogen-containing waste will be discarded as regular trash after it is autoclaved or decontaminated by equivalent means.

Biomedical Wastes Containing Human Pathogen: Are biological wastes that may contain a human pathogen. All waste that may contain human pathogens must be disposed of as biomedical waste. As defined by [64E-16 F.A.C.](#), all biomedical waste must be disposed of within thirty days of generating the waste.

Biohazardous Sharps: Are needles, needle-syringe units, scalpels, and razor blades, contaminated or non-contaminated with biological materials, are considered biohazardous sharps. All biohazardous sharps are considered biomedical waste and must be placed into a red, puncture resistant plastic needle box and discarded as biomedical waste.

Sharps Waste: Are glassware/glass sharps such as Pasteur pipettes and broken or unbroken glassware. For contaminated glassware/glass sharps, Pasteur pipettes, broken or unbroken glassware must be autoclaved or decontaminated prior to disposal. All sharps wastes must be properly packaged and labeled prior to disposal as regular trash and **should not be recycled**. However, if the repackaging of sharps for autoclaving presents a risk of infection, sharps may be packaged and disposed as biomedical waste.

Biohazardous Waste mixed with Hazardous Waste: Are biological wastes mixed with [hazardous waste](#)? These types of biological waste shall be managed as hazardous waste. An exemption to these are sharps, such as needles and syringes, contaminated with hazardous materials and would be disposed as biohazardous sharps.

Biohazardous Waste mixed with Radioactive Waste: Are biological wastes mixed with [radioactive waste](#)? These types of biological waste shall be managed as radioactive waste. An exemption to these are sharps, such as needles and syringes, contaminated with radioactive materials and would be disposed as biohazardous sharps. The red sharps container will be labeled to note that it is mixed with radioactive materials.

Note that the cost of disposing biological waste mixed with hazardous waste and/or radioactive waste is high. Therefore, unnecessary mixing of these forms of waste is highly discouraged.

Biohazardous Waste Labeling

Labels and signs bearing a [red biohazard warning logo](#) shall be affixed to locations and containers used to store and transport biomedical and biohazardous materials.

This label shall be red, fluorescent orange or orange-red or predominantly so, with lettering and symbols in a contrasting color.

In addition to the red biohazardous warning logo, biomedical waste generators must affix labels to biomedical waste boxes and biomedical sharps bins with the generator's name, and the date that the biomedical sharps box was closed and taped.

The biomedical waste transporter will provide labels for biomedical waste boxes and biomedical sharps bins with the transporter's name, address, registration number and 24-hour emergency telephone number. The waste disposal transport contractor provides all above information on bar code stickers forms for boxes and bins.

Biohazardous Waste Storage

Biohazardous waste storage locations in laboratory, clinic, or training facilities must be in access-restricted areas and maintained in a sanitary condition. The establishment of these storage locations must be coordinated with the [Biological Safety Office](#).

When the biohazardous waste storage containers are nearly full, contact the [Biological Safety Office](#) to schedule a biohazardous waste pick-up. All biohazardous wastes that have been transferred to the [Biological Safety Office](#) are required by law to be picked by a licensed biohazardous waste broker within 30 days.

Biohazardous Waste Disposal Procedures

Non-Human Pathogen Containing and General Biohazardous Waste

General biohazardous waste materials and biohazardous waste containing non-human pathogens must be collected in a clear autoclave bag WITHOUT the [red biohazard warning logo](#).

Bagged waste must be autoclaved at 121°C, 15 psig for at least 15 minutes.

After autoclaving, the bagged waste should be placed in a non-clear trash bag and disposed as regular trash.

Human Pathogen Containing Biohazardous Waste

- Biomedical waste containing human pathogens must be collected in an autoclavable biohazardous label bag.
- Bagged waste must be autoclaved at 121°C, 15 psi for at least 15 minutes.
- All biomedical waste must be discarded into a lined biomedical waste box.
- The maximum gross weight for a 30-gallon biomedical waste box is 50 lbs.
- For a 15-gallon biomedical waste box, the maximum gross weight is 40 lbs.
- Be sure the bottom of the biomedical waste box is secured with two-inch wide pressure sensitive tape or equivalent.
- When the box is full, reaches its maximum gross weight, or waste accumulation approaches the 30 days limit for storage, the biomedical waste box should be sealed.
- Be sure that the top of the liner is closed by twisting the bag opening, and tying it in a single knot, or by taping the twisted opening.
- Secure the top of the biomedical waste box with a two-inch wide pressure sensitive tape or equivalent.
- Label the box with the name of the Principal Investigator's laboratory, the location of the laboratory, and the date when the waste was first generated.

After the biomedical waste box is sealed and labeled, a biomedical waste pick-up request must be made, contact [Biological Safety](#) Office at 644-5374 or submit an [online request](#). This applies to the main campus and all FSU southwest campus facilities at Innovation Park, including the FAMU/FSU College of Engineering.

The University Health Services, have their own internal mechanisms for biomedical waste pick-ups however, the [Biological Safety](#) Office can be contacted for assistance.

Biohazardous Waste Mixed with Hazardous Waste

Mixing [biohazardous waste](#) with [hazardous waste](#) is highly discouraged. Mixed wastes of these types shall be managed as hazardous waste.

Prior to generating this type of waste, coordinate with the [Biological Safety and Chemical Safety Offices](#).

General biohazardous waste materials, biohazardous waste containing non-human pathogens, or biohazardous waste containing human pathogens mixed with hazardous waste must be collected in a double red biohazardous bag.

When the bag is full, it must be secured by ensuring the top of the bag is closed by twisting the bag opening and tying in a single knot, or by taping the twisted opening.

Clearly label the bag as "Biohazardous Waste Mixed with Hazardous Waste".

After the bag is sealed and labeled, a biomedical waste pick-up request must be made, contact the [Biological Safety](#) Office at 644-5374 or submit an [online request](#).

Biohazardous Waste Mixed with Radioactive Waste

Biohazardous waste mixed with radioactive waste is highly discouraged.

Prior to generating this type of waste, coordinate with the Biological Safety Office at 644-5374, or the Radiation Safety Office at 644-8802.

General biohazardous waste materials, biohazardous waste containing non-human pathogens, or biohazardous waste containing human pathogens mixed with radioactive waste must be collected in a double red biohazardous bag.

As defined in Section V of Florida State University's Radiation Safety Manual. These types of biological waste shall be managed as radioactive waste.

When the bag is full, it must be secured by ensuring the top of the bag is closed by twisting the bag opening and tying in a single knot or by taping the twisted opening.

Clearly label the bag as "Biohazardous Waste Mixed with Radioactive Waste".

After the bag is sealed and labeled, a mixed waste pick-up request must be placed by contacting either the Biological Safety Office (or [online](#)) or the Radiation Safety Office at 644-8802 (or [online](#)).

Sharps

Sharps can be defined as any device having corners, edges or projections with the potential of cutting or piercing the skin. This pertains to both regulated sharps contaminated with biohazardous waste and sharps that pose a safety hazard to custodial staff and other personnel.

The following items are examples of regulated sharps and must be disposed in red sharps containers and managed as medical waste, whether or not they are contaminated with biohazardous waste:

- Needles, including those with syringes, vacutainers and attached tubing
- Scalpels
- Razors
- Surgical saw blades

When disposing of glassware contaminated with biohazardous waste, it must be placed into a biohazard waste bin provided by the Department of Environmental Health and Safety (EH&S). Examples include:

- Glass pipettes
- Glass slides
- Glass bottles
- Test tubes
- Flasks

Sharps Classification

There are three types of sharps waste produced at FSU. This information complies with [OSHA's Bloodborne Pathogen Standard \(29 CFR 1910.1030\)](#) and federal, state and local waste disposal guidelines. The disposal procedures for these types are as follows:

Non-chemically contaminated broken glass and Non-biologically contaminated broken glass

This type consists of any broken glass that has been rinsed of any chemical contamination, including:

- Glass pipettes
- Fixed glass slides
- Solvent bottles
- Chemical bottles
- Test tubes
- Broken flasks

Procedure for disposal:

1. Place waste in a sturdy, leakproof, puncture-resistant **“broken glass”** box. This may be achieved by lining a sturdy cardboard box with a strong trash bag and labeling **“sharps”** or **“broken glass.”**
2. Securely close the box, label it **“sharps trash”**, mark the source location (building and room number), and leave in the hallway for the custodial staff or place directly into the dumpster.
3. Do not overfill.
4. Do not use overly large boxes as these will become too heavy.
5. Do not place wet materials in this box as they may saturate and weaken the cardboard.
6. **Should only be disposed of as solid waste and not recycled.**

Chemically contaminated broken glass

This type consists of any broken glass that is contaminated with a hazardous chemical.

Procedure for disposal:

1. Place waste in a puncture proof container that can be capped and sealed. [Contact EH&S](#) for a waste container if needed.
2. Waste container must be labeled with the chemical contaminant.
3. Call the Chemical Safety Office at 644-7682 to schedule a pickup.

Biologically contaminated sharps

This type consists of:

- All biologically contaminated sharps from [BSL1](#) laboratory that is contaminated with a potentially infectious material.
- All biologically contaminated sharps from a [BSL2](#) or [BSL3](#) laboratories.
- All syringes and needles, whether they are biologically contaminated or not.

Procedure for removal:

1. Place waste in leakproof Biohazard Sharps containers provided by EH&S.

2. Contact EH&S for disposal by calling the Biological Safety Office at 644-5374.

If your laboratory is not a [BSL1](#), [BSL2](#) or [BSL3](#) lab and generates syringes and needles only:

- Place waste such as a red sharps container.
- When $\frac{3}{4}$ full, tape shut and exchange for an empty red sharps container at the Chemistry or Biology stockroom or by calling the Biological Safety Office at 644-5374 for pickup and to request a new container.

The following are general guidelines for all sharps containers in the laboratory:

- Never overfill sharps containers.
- Close the lid on sharps containers when they are $\frac{3}{4}$ full.
- Never re-use sharps containers.
- Do not “pour” sharps from one container into another.

[Biowaste Flowchart](#)

Common Biohazardous Waste Supplies

The following is a list of common use supplies for biohazardous waste disposal:

- Autoclavable clear plastic bags (for non infectious waste)
- Autoclavable red biohazardous bags (for infectious waste)
- Needle boxes: red, puncture-resistant plastic box (for disposal of needle-syringe units, scalpels and razor blades)
- Two-inch wide pressure sensitive sealing tape for the boxes or equivalent
- Permanent marker

The following is a list of materials supplied by the licensed waste disposal contractor:

- Red biomedical plastic liner
- 30 gallon cardboard biomedical waste box or
- 30 gallon plastic biomedical bin

Contact the [Biological Safety](#) Office for biohazardous waste supplies.

Biohazardous Waste Training

Biohazardous waste training will be scheduled as required by paragraph 64E-16.003(2)(a), F.A.C. Training sessions will detail compliance with this operating plan and with Chapter 64E-16, F.A.C. Information on training schedule and sessions are found at:

<https://www.safety.fsu.edu/sections/trainingclasses.php#biotraining> and at https://www.safety.fsu.edu/safety_manual/Biological%20Safety%20Training.pdf.

Biohazardous Waste Transport

The University will negotiate for the transport of biohazardous/biomedical waste only with a DOH-registered company. If the University contracts with such a company, EH&S will have on file the pick-up receipts provided to the University for the last three (3) years.

Procedures for Decontaminating Biomedical Waste Spills

Procedures for biomedical waste spill is located at:

https://safety.fsu.edu/safety_manual/Biological%20Spills,%20Contamination,%20Potential%20Infection.pdf.

Contingency Plan

If the registered biomedical waste transporter is unable to transport the University's biohazardous waste, or unable temporarily to treat the biohazardous waste, alternative registered biohazardous/biomedical waste transporter will be contacted to provide the service.