

SAFE HANDLING, COLLECTING AND DISPOSAL OF INFECTIOUS SUBSTANCES

1. PURPOSE AND SCOPE

1.1. This procedure describes methods for safely collecting, handling and disposing of infectious waste. This procedure applies to all personnel at the University of Notre Dame whose work involves infectious substances.

2. DEFINITIONS

2.1. Infectious Waste- waste, which epidemiologic evidence indicates is capable of transmitting a dangerous communicable disease. The term includes, but is not limited to:

- Contaminated sharps or contaminated objects that could potentially become contaminated sharps;
- Infectious biological cultures, infectious associated biologicals, and infectious agent stock;
- Pathological waste;
- Blood and blood products in liquid and semiliquid form;
- Laboratory animal carcasses, body parts, blood and body fluids in liquid and semiliquid form;
- Bedding of laboratory animals; and
- Other waste that has been intermingled with infectious waste.

2.2. Bloodborne Pathogens (BBP)- pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

2.3. Biological Hazard (biohazard)- a biological agent or condition that is a hazard to humans or the environment.

3. RESPONSIBILITIES

3.1. Principal Investigators shall develop a process to ensure:

- 3.1.1. All personnel reporting to the PI receive communication that this procedure shall be adhered to within the PI's area(s) of responsibility and all personnel reporting to the PI are trained on the requirements of this standard.
- 3.1.2. Periodic inspections are conducted of the PI's area(s) of responsibility, by the PI or the PI's designated personnel, verifying the requirements of this standard are being met [no documentation required].

- 3.1.3. If deficiencies are noted during the periodic inspections immediate corrective actions are implemented (correction of the deficiency and retraining, adherence to the University's discipline process, etc.). If funding is required to correct a deficiency and monies are not available, the PI shall petition the Department for funding.
- 3.2. The department or Principal Investigators shall provide the following:
 - 3.2.1. Personal protective equipment, as necessary, to persons involved in infectious agent research or infectious waste handling.
 - 3.2.2. The necessary red bags and/or leak-proof, rigid and puncture resistant sharps containers labeled with the biohazard symbol.
 - 3.2.3. Appropriate bags for autoclaving and dark bags for the disposal of autoclaved waste.
- 3.3. University personnel (i.e., individual, researcher, department) generating infectious waste shall adhere to the requirements in this procedure.
- 3.4. Risk Management and Safety shall adhere to the following guidelines and procedures:
 - 3.4.1. Picking up and transporting infectious waste to the Risk Management and Safety processing facility.
 - 3.4.2. Record retention and maintenance of records indicating the amount (in weight) of each class of waste material and notation of researcher or department prior to final disposal.
 - 3.4.3. Final disposal of infectious waste by the following means:
 - Contracting with a licensed infectious waste disposer to transport and dispose of infectious waste at licensed incinerators.
 - Utilizing other available technologically possible and approved means.
 - At all times prior to disposal, infectious waste shall be stored in closed containers in a secure area, protected from adverse environmental conditions and identified with the biohazard label.
 - 3.4.4. Providing necessary instruction and training in Universal precaution procedures and all other applicable guidelines regarding the handling or transportation of infectious waste.
 - 3.4.5. Records of instruction including an attendance record shall be maintained by Risk Management and Safety.
 - Trainees will be provided with a training certification card.
 - All records, including waste shipments, weights, departments, disposal, instruction, training attendance and any other pertinent or necessary records shall be maintained by Risk Management and Safety.

4. CONTROLS
 - 4.1. Infectious substances shall be collected, stored in the appropriate container [See 4.2] indoors with the general area being maintained in a clean and sanitary condition.
 - 4.2. Appropriate containers shall be puncture resistant and leak-proof with a lid/cap.
 - 4.3. All infectious substance and infectious waste containers require hazard communication labeling [See Appendix A for example labels] and shall be labeled with wording indicating type of material or waste.
 - 4.3.1. Infectious cultures and stocks, pathological waste, and human blood products shall be placed in the container labeled BIOHAZARDOUS (WASTE)- CULTURES, BIOHAZARDOUS (WASTE)- PATHOLOGICALS, BIOHAZARDOUS (WASTE)- BLOOD, or similar wording.
 - 4.3.2. Contaminated animal bedding shall be placed in the container labeled BIOHAZARDOUS (WASTE)- ANIMAL BEDDING or similar wording.
 - 4.4. Infectious waste storage areas must be kept secured or otherwise protected from unauthorized entry
 - 4.5. Personnel handling infectious substances shall be trained on the hazards [See 7.].
5. PERSONAL PROTECTIVE EQUIPMENT (PPE):
 - 5.1. Safety goggles, gloves, and lab coat shall be worn when handling infectious substances. Additional PPE may be required, as necessary.
6. DISPOSAL OF INFECTIOUS WASTE
 - 6.1. For infectious wastes that can be autoclaved or treated, the individual generator (researcher, department) shall:
 - 6.1.1. Determine if the infectious waste can be autoclaved or treated.
 - 6.1.2. Render innocuous all infectious waste (except sharps and sharps containers, animal carcasses and contaminated bedding) through autoclaving or treatment with bleach (5% sodium hypochlorite solution) prior to discarding as regular trash.
 - 6.1.3. Any autoclaved or treated waste suitable for disposal as regular trash shall be placed in a dark plastic trash bag which is properly labeled with the words "safe for trash" PRIOR to Building Services disposal. During times when Building Services is not available (e.g., weekends and University breaks) labs are responsible to take the properly packaged autoclaved waste to the trash dumpster. Building Service Personnel shall not handle waste in red biohazard bags.
 - 6.2. For infectious wastes that cannot be autoclaved or treated, the individual generator (researcher, department) shall segregate and label the waste prior to pick-up by Risk Management and Safety as follows:

- 6.2.1. All waste containers shall be marked with the P.I. or supervisor's last name, room/lab number and department.
- 6.2.2. Red Bags must be tied off and not have anything protruding from them to be picked up by Risk Management and Safety.
- 6.2.3. Used and unused sharps shall be placed in a sharps container with a biohazard symbol. All sharps containers ready for disposal need to be completely sealed so nothing is protruding from the container and the lid and all safety tabs are fully engaged.
- 6.2.4. Contaminated animal carcasses shall be placed in red bags, frozen and secured by tying off the bag.
- 6.2.5. The [Biohazardous Waste Discard form](#) is used to contact RMS to request a biohazardous waste pickup.
 - The form shall be completed and submitted prior to the facility's scheduled waste pickup date. If the facility is not on the pickup schedule, RMS will schedule a pickup.
 - A confirmation email will be received if the form was successfully submitted.

7. TRAINING

- 7.1. Biohazard Safety training is required.
- 7.2. If working with human pathogens, Bloodborne Pathogen training is required. The training completion documentation shall be provided to the PI or designee for record retention.



Revision History Table

History	Effective Date
<p>Updated document to most current procedure template and general formatting changes.</p> <p>Moved information from section 4.5 “All infectious waste containers require hazard communication labeling [See Appendix A for example labels].” To section 4.3 and incorporated “and shall be labeled with wording indicating type of material or waste” from sections 4.3/4.4.</p> <p>Clarified requirement in example (4.3.1 and 4.3.2) by adding “BIOHAZARDOUS (WASTE)” in front of each example.</p> <p>Section 5.1 added “Additional PPE may be required as necessary.”</p> <p>Added section 6.2.5 “The Biohazardous Waste Discard form is used to contact RMS to request a biohazardous waste pickup.”</p> <p>Added bulletpoint subsets to section 6.2.5 “It shall be completed and submitted prior to the facilities scheduled waste pickup date” and “A confirmation email will be received if the form was successfully submitted.”</p> <p>Section 7.2 - The training completion documentation shall be provided to the PI or designee for record retention.</p> <p>Added Revision History Table</p>	<p>October 30, 2017</p>

APPENDIX A

Example Infectious Substance Hazard Class Sticker



Example Biohazardous Symbol



Example of Biohazardous Waste Label

