	Biological Materials and Biohazardous/Medical Waste Disposal Program	Document Number: EHS.BIOW.08.02
		Effective Date: 7/10/10
		Revision Date: 7/14/14

1.0 Purpose and Applicability

1.1. Biological waste is waste from the laboratory that contains or potentially contains biohazardous agents or recombinant DNA material. Laws and regulations are in place to ensure the proper handling of these materials and to offer guidance to those who must do so. Generator requirements are listed in 105 Code of Massachusetts Regulations (CMR) 480.000: http://www.mass.gov/Eeohhs2/docs/dph/regs/105cmr480.pdf ; Special waste and facility: 310 CMR 19.000; New Source Performance Standards (NSPS) for hospital/medical/infectious waste generators (HMIWI): 40 CFR 60.50c to 60.58c. Additional regulatory agencies are the Massachusetts Department of Public Health (DPH) Community Sanitation Program and the Massachusetts Department of Environmental Protection.

1.2. The purpose of this document is to establish the process through which biological waste, rDNA materials, and medical waste is handled; whether it is deactivated on-site, or stored, packaged and shipped for off-site deactivation and/or incineration.

2.0 Definitions

2.1 **Biohazardous Agent:** refers to an agent that is biological in nature and has the capacity to produce deleterious effects upon biological organisms. Biohazardous agents include, but are not limited to; bacteria, fungi, viruses, rickettsiae, Chlamydia, prion, parasites, recombinant products, allergens, cultured human and animal cells and the potentially biohazardous agents these cells may contain, infected clinical specimens, tissue from experimental animals, plant viruses, bacteria and fungi, toxins, and other biohazardous agents as defined by State and Federal regulations.

2.2 **Experimental rDNA material:** In the context of the *NIH Guidelines*, recombinant DNA molecules are defined as either:

(i) molecules that are constructed outside living cells by joining natural or synthetic DNA segments to DNA molecules that can replicate in a living cell, or
(ii) molecules that result from the replication of those described in (i) above.

Synthetic DNA segments which are likely to yield a potentially harmful polynucleotide or polypeptide (e.g., a toxin or a pharmacologically active agent) are considered as equivalent to their natural DNA counterpart.

All recombinant DNA waste *must* be deactivated prior to disposal.

2.3 **Infectious medical waste:** In Massachusetts this waste is defined as waste that, because of its characteristics, may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or pose as a substantial present potential hazard to human health or to the environment when improperly treated, stored, transported, disposed of, or otherwise managed. The following are included in infectious medical wastes: blood and blood products; pathological waste; cultures and

stocks of infectious agents; contaminated animal carcasses, body parts, and bedding; sharps (needles, scalpels, blades, etc.); and biotechnical by-product effluents.

2.4 **Biohazardous and medical waste:** is defined as human tissues, wastes from contact with patients; waste contaminated with infectious agents, live vaccines, all contaminated sharps (syringes, needles, scalpel blades, etc.), and animal carcasses/tissues. These wastes must be disposed of by incineration. We currently have a contract with Stericycle to pick-up biohazardous and medical waste at the Integrated Science Building and dispose of it at approved treatment facilities.

2.5 **Sharps:** are items that are capable of puncturing, cutting or abrading the skin. Sharps include, but are not limited to; glass and plastic pipettes, broken glass, test tubes, razor blades, syringes, and needles. Sharps shall be segregated from other wastes and aggregated immediately after use in red, fluorescent orange or orange-red leak proof, rigid, puncture-resistant, shatterproof containers that resist breaking under normal conditions of use and handling, meet ASTM standard F2132-01, and that are marked prominently with the universal biohazard warning symbol and the word "Biohazard" in a contrasting color. These containers may be obtained from the Thermo-Fisher Stockroom in the basement of the Lederle Research Tower. You must contact EH&S at: http://www.umass.cems.sr.unh.edu/CEMS/RequestRemoval for removal of your sharps containers once the contents have reached the fill line on the side of the container. UMass currently has a contract with Triumvirate, Inc. to pick-up biohazardous waste on campus and to deliver it to the Integrated Science Building where Stericycle will pick up and dispose of our biohazardous and medical waste off campus.

2.6 **Incineration**: is a waste treatment technology that involves the combustion of organic materials and/or substances. Incineration and other high temperature waste treatment systems are described as thermal treatment. Incineration has particularly strong benefits for the treatment of certain waste types in niche areas such as clinical wastes and certain hazardous wastes where pathogens and toxins can be destroyed by high temperatures. The University of Massachusetts at Amherst chooses incineration for the treatment of the infectious waste generated by campus medical and research activities. We currently have a contract with Stericycle to pick-up and dispose of our biohazardous and medical waste.

2.7 **Autoclaves:** are pressurized vessels designed to heat aqueous solutions above their boiling point at normal atmospheric pressure to achieve sterilization. There are chemical and biological indicators that can be used to ensure an autoclave reaches the correct temperature for the correct amount of time. Chemical indicators can be found on medical packaging and autoclave tape, and these change color once the correct conditions have been met. This color change indicates that the object inside the package, or under the tape, has been autoclaved sufficiently. Biological indicators include attest devices. These contain spores of a heat-resistant bacterium, *Geobacillus stearothermophilus*. If the autoclave does not reach a high enough temperature, the spores will germinate, and their metabolism will change the color of a pH-sensitive chemical. Parametric monitoring is automated equipment that records critical parameters appropriate for the treatment process of rendering medical or biological waste non-infectious including but not limited to time, temperature, pressure and pH.

2.8 **Animals and Animal Bedding:** All animal carcasses (or animal tissues) that have been used for teaching and/or research purposes are to be disposed of by incineration. The carcasses must be packed in a leak-proof container, labeled appropriately, and frozen until disposal. If

the animals or animal tissues have been placed in a formaldehyde solution, they must be separated from the solution before incineration.

Animal bedding must be bagged, placed in a dumpster and disposed of in a sanitary landfill. Bedding contaminated with biohazardous waste, (e.g., from animals shedding pathogens) must be decontaminated by autoclaving before disposal. All bedding should be placed in heavy-duty, leak proof bags, tied securely and placed in dumpsters. Loose bedding shall not be placed in dumpsters.

3.0 Roles and Responsibilities

3.1 **Biological Safety Officer –** (Environmental Health & Safety) advises the Environmental Health & Safety Director on all matters relating to the use of biological agents within UMass. The BSO advises faculty, staff and students on waste disposal policies, disinfection policies, risk assessments, hazardous waste training, and autoclave management program, etc.

3.2 **Laboratory Health and Safety Services Technicians –** (EH&S) assist Environmental Health & Safety management teams as well as laboratory staff and PI's with safety oversight of laboratories. These technicians provide on-site inspections and offer advice to laboratory staff when needed.

3.3 **Environmental Management Staff –** (EH&S) assists the University with the proper characterization, removal and disposal of hazardous waste. This group monitors the website where waste requests are processed by a commercial hauler: http://www.umass.cems.sr.unh.edu/CEMS/RequestRemoval

3.4 **Principle Investigator –** Lead research scientist in the laboratory and responsible person for training on proper laboratory practices including waste decontamination and disposal as well as safety.

3.5 **Laboratory Staff –** scientists, assistants, technicians, students, clerical staff and any other persons that are working in the laboratory.

3.6 **Institutional Biosafety Committee**: University personnel plus two community members who are responsible for the annual review of the biological and medical waste management program.

4.0 Procedures for Managing Biological/Infectious Waste

4.1 Program for Autoclave (Steam Sterilization) Treatment of Biohazardous Waste

1. **Collection**: Solid biological waste which includes discarded cultures and stocks of infectious agents and their associated biologicals, including culture dishes and devices used to transfer, inoculate, and mix cultures, as well as live and attenuated vaccines, culture plates with rDNA, waste contaminated with potentially infectious agents, and other tissues and preparations from genetically altered living organisms should be collected in ASTM (American Society for Testing and Materials) approved clear autoclave bags. These bags must be maintained in biohazard labeled secondary containment until they are placed into an autoclave, or if ever removed from an autoclave due to a malfunction. Bags should not be packed so tightly that steam can not penetrate the entire load. Add 200 ml of water to the bag to help generate steam within the bag. The top should not be tied so tightly so that steam cannot escape; otherwise the bag may burst while autoclaving. Autoclave tape or some other indicator must be on the bag to show that the bag has undergone a successful autoclave run once the process is complete. A 60 minute autoclave time is recommended to allow enough time for the

center of the load to come up to temperature and have sufficient steam penetration. ***If you wish to autoclave waste for less than 60 minutes you must verify effectiveness.***

2. **Record Keeping Log:** All workers should review the Autoclave Management Program that is available from EH&S.
   a) Use the CMR 480.500 log sheets provided near the autoclaves. Massachusetts mandates that these records be kept up to date by every user, for every run.
   b) These log sheets are maintained in a log book with secured, consecutively numbered pages, for three years.
   c) Challenge testing with *Geobacillus stearothermophilus* biological indicators are run once a month (or more often as needed) to verify that successful kill levels have been achieved. A successful run is quantified by at least a 1.0×10^4 reduction in heat resistant organisms and the type of bacterial indicator selected should contain this volume or more of *Geobacillus stearothermophilus.*
   d) When a 4 log 10 bacterial spore reduction has *not* been demonstrated (results indicate bacterial growth), the processed waste must be held until corrective actions have been taken. An operations and mechanical systems assessment shall be conducted by a qualified individual who has received training from the manufacturer in the operations and maintenance of the equipment. Appropriate corrective actions shall be implemented when warranted, including but not limited to mechanical adjustments and, when applicable, recalibration of all parametric monitoring devices followed by re-treatment of the waste and additional challenge testing to confirm the effectiveness of any implemented corrective action. (105 CMR 480.150). An alternative autoclave, which is currently in full compliance with all regulatory provisions including spore testing, may be used to treat biological waste excluding sharps until troubleshooting is complete on the autoclave that failed. Contact UMass EH&S if there is a need to implement short-term procedures for utilizing alternative autoclaves elsewhere on the campus and/or to get permission and instructions for sending waste off site for treatment as a last resort. This may only occur with EH&S permission and in extreme circumstances. The methods that rely on heat shall be evaluated for each load or cycle by using a recording thermometer, thermocouple, parametric monitoring device, thermal indicator strip, or by an approved equivalent method.
   e) All parametric monitoring equipment utilized in conjunction with autoclaves, shall be calibrated at a minimum annually by an individual who has received training from the manufacturer in the operations and maintenance of the equipment.
   f) When implemented, corrective actions pursuant to 105 CMR 480.150(E)(4) shall be documented in detail including the date, name of the individual implementing the corrective actions and a description of the work performed, on the back of the applicable record-keeping log form for medical or biological waste treated on-site.

3. **Autoclaving Procedure:**
   a) Place materials in a **clear** autoclave bag. No biohazard symbol should be visible. Do not use red or orange biohazard bags to autoclave biohazardous waste as these bags cannot be disposed of as regular trash.
   b) The clear bag should be loosely packed and less than ¾ full. Do not seal the bag shut as the opening should remain an inch in diameter.
   c) Use an autoclave indicator on the exterior of the bag to show that the waste has been processed. Autoclave tape can serve this purpose.

d) Add 200 ml of water to the bag to help generate steam within the bag.
e) Place waste material on a large, autoclavable, leak-proof tray. Metal containers transfer heat more efficiently than plastic containers. The container should be large enough and shallow enough to allow for ample steam circulation. If autoclaving more than one bag, make sure that there is ample room between the bags so that steam circulation is not impaired. Do not overcrowd the autoclave. Bags should not be able to touch the sides or the top of the autoclave and should be on a rack so that they are not in contact with the bottom.
f) Autoclave at 121^{0}C for **60 minutes.**
g) To autoclave liquid waste, place the liquid in a beaker or flask.
h) If Prospores were run and they failed, go to section 4.3 – 2d for corrective action.

4. **Packaging:** Once the autoclave run is complete and your indicators are positive for a successful run*, you will allow the waste to cool. Once the waste is cool, you will need to place a sticker on the clear AUTOCLAVE bag with the name of the building and room number of the facility that generated the waste.

NON-INFECTIOUS AUTOCLAVED BIOLOGICAL WASTE FROM UMASS AMHERST TREATED IN ACCORDANCE WITH MA-DEP AND MA-DPH REGULATIONS DATE TREATED: _____ BUILDING: _____ PRINCIPAL INVESTIGATOR:_____

*Chemical indicators can be found on medical packaging and autoclave tape, and these change color once the correct conditions have been met. This color change indicates that the object inside the package, or under the tape, has been autoclaved sufficiently. Biological indicators include attest devices. These contain spores of a heat-resistant bacterium, *Geobacillus stearothermophilus*. If the autoclave does not reach a high enough temperature, the spores will germinate, and their metabolism will change the color of a pH-sensitive chemical. Parametric monitoring is automated equipment that records critical parameters appropriate for the treatment process of rendering medical or biological waste non-infectious including but not limited to time, temperature, pressure and pH.

5. **Disposal**: Place the cooled and stickered autoclaved bag(s) inside an opaque or black trash bag and dispose of them as general solid waste trash (dumpster). There is no need for a sticker on the outside of the opaque bag.

4.2 Management of Liquid Biological Waste

1. Biological waste must be decontaminated with an appropriate disinfectant prior to disposal via the sanitary sewer.
2. Liquid waste is diluted 1:10 with bleach (or another EPA approved disinfectant) and is allowed to stand for the appropriate kill time (usually 30 minutes) before disposal down the sanitary sewer.

4.3 Laboratory Storage and Handling of Biohazardous/Infectious Medical Waste (Bio-boxes)

This method is only for labs that generate:

a) Animal carcasses
b) Human tissues
c) Sharps containers

d) Small scale biohazardous waste that have no access to an autoclave

1. All infectious medical or biohazardous waste (going to Stericycle), except sharps, shall be contained in a leak-proof container which is marked with a biohazard symbol and lined with a red bag that is impervious to moisture and has sufficient strength to resist ripping, tearing, or bursting under normal conditions of use and handling, and which meets the American Society for Testing Materials (ASTM) standard D1922-06a and ASTM D1709-04.
2. "Working" containers of infectious medical or biohazardous waste must be maintained in secondary containment and this containment must be covered and labeled with biohazard symbols. Step cans with hands-free operation and with a biohazard label are strongly recommended for this purpose.
3. Infectious medical or biohazardous waste stored on site will be maintained by the generator within a time limit to prevent the development of offensive odors.
4. Infectious waste is collected in clear autoclave bags (no biohazard symbol) and may not be placed on the floor while awaiting pick-up or autoclaving. This waste should *temporarily* reside in an appropriately labeled (biohazard symbols applied) bin until the waste is treated on site.
5. Infectious medical or biohazardous waste to be treated shall be maintained in an enclosure or designated accumulation area, which is secured, to deny access to unauthorized persons, marked with the appropriate warning signs, and which provides protection from animals, rodents and natural elements.
6. The designated accumulation area may be a room at room temperature, a walk-in cooler, or a freezer (such as for animal carcasses).
7. Warning signs should be posted to prevent unauthorized access such as: "CAUTION, BIOHAZARDOUS WASTE STORAGE AREA – UNAUTHORIZED PERSONS KEEP OUT".

4.4 Procedure for Shipping Biohazardous Waste to Stericycle for Treatment

This method is only for labs that generate:

e) Animal carcasses
f) Sharps containers
g) Small scale biohazardous waste that have no access to an autoclave

4.4.1 Packaging

1. Line all corrugated bio-boxes with two primary red biohazard bags provided by Stericycle.
2. Animal carcasses should be frozen for at least two days prior to packaging for pick-up by EH&S/contractor or picked up within 24 hours unless maintained in a designated freezer.
3. All non-sharp waste (blood soaked materials) may be placed directly into the red biohazard bag, or individually bagged to help eliminate odor.
4. Sharps (syringes, scalpels, tubes of blood, razors, etc.) must be placed into a puncture-resistant sharps container prior to being placed into the red biohazard bags.
5. The primary red biohazard bag liner must be sealed or tied to avoid spillage. Securely seal the top of the corrugated boxes with tape.
6. Corrugated **boxes should not exceed 40 pounds**. The **boxes will be rejected if** the containers are; **overweight, leaking, bulging or damaged**.

7. Do not discard any chemical hazardous wastes, radioactive materials, flammable liquids, DEA-regulated waste, pharmaceutical waste or lead-foil in the bio-boxes. If there is an accidental cross-contamination of these waste streams, please notify EH&S (545-2682) so that we may handle these on a case by case basis.

4.4.2 Labeling

1. Label the primary red biohazard bag inside the box with a water resistant label with the building name and room number. Note the date of packaging on this label.
2. Label the outside of the corrugated bio-boxes a bar-coded address label and a "PATH WASTE" sticker provided by Stericycle. *"PATH WASTE"* stickers are required on all bio-boxes containing medical waste, carcasses and sharps.

4.4.3 Pick-Ups & Packaging Material Requests

1. You may place a pick-up request and request packaging supplies on the EH&S website at http://www.umass.cems.sr.unh.edu/CEMS/RequestRemoval
2. Pick-ups will be made on Thursdays by EH&S staff.
3. Stericycle provides bio-boxes, red biohazard bags and labeling materials. Please place an order with EH&S when your supplies are running low.

4.4.4 Special Waste Requests

Special waste requests will be handled on a case by case basis. If you have any questions concerning disposal of biological wastes or other wastes please contact Judy LaDuc at Environmental Health & Safety @ 545-7293 or jladuc@ehs.umass.edu .

4.4.5 Storage of Biological/Infectious Waste

1. Medical waste to be collected by Stericycle shall be maintained in an enclosure or designated accumulation area, which is secured, to deny access to unauthorized persons, marked with the appropriate warning signs, and provides protection from animals, rodents and natural elements.
2. Warning signs should be posted to prevent unauthorized access such as: "CAUTION, BIOHAZARDOUS WASTE STORAGE AREA – UNAUTHORIZED PERSONS KEEP OUT".
3. Medical waste stored on site will be maintained by the generator for a limited time to prevent the development of offensive odors.
4. Waste is stored refrigerated or frozen until picked up by contractor.

4.4.6 Treatment of Waste

1. Permitted Waste Treatment Facilities

   All waste collected by Stericycle is transported to a permitted facility for proper treatment and subsequent disposal.

2. Waste treatment Methods/Parameters

a) Pathology waste (human tissue specimens, organs, limbs, and contaminated animal carcasses, parts and specimen(s) is **incinerated**.

b) Bio-hazardous waste, sharps and non-hazardous pharmaceutical waste is subjected to incineration, Stericycle's Electro-Thermal-Deactivation (ETD) technology or other approved treatment technologies.

c) Small scale biohazardous waste (blood samples, etc.), from laboratories that have no access to an autoclave is boxed for incineration and shipment off-site by Stericycle.

3. Stericycle waste treatment facilities operate in compliance with all applicable federal, state and local laws/regulations and maintain all required permits and licenses.

4. In accordance with M.G.L. c. 111 §§ 3, 5, and 127A and 105 CMR 480.000: Minimum Requirements for the Management of Medical or Biological Waste State Sanitary Code, Chapter VIII), generators of medical or biological waste, shipped off-site for treatment, shall maintain a current record-keeping log with the following information: the exact date of shipment; the total number of containers; the type of waste; the total combined weight or volume; the name of the transporter with transporter identification number (if applicable); the verification (via check box) of shipping papers generated with receipt of corresponding tracking forms for each shipment; and the printed name and signature of the person responsible for shipping the waste.

5. There is a **Medical or Biological Waste Record-Keeping Log** In the cold room in ISB where the waste is stored prior to pick up by Stericycle. This log (mandated by 105 CMR 480.000) is completed by a member of the EH&S staff at the time of waste pick-up.

The record-keeping log for medical or biological waste shipped off-site for treatment shall specify:
(a) The exact date of each shipment;
(b) The total number of containers;
(c) The type of waste;
(d) The total combined weight or volume;
(e) The name of the transporter with transporter identification number
(f) The verification (via check box) of shipping papers generated with receipt of corresponding medical waste tracking forms for each shipment; and
(g) The printed name and signature of the person responsible for shipping the waste.

The log remains in the waste area. A copy of the Medical Waste Tracking Form from Stericycle is obtained at the same time, and this form is forwarded to Biological Safety Services at EH&S. These forms are redundant and are useful for auditing purposes. These records are maintained for 3 years.

5.0 Key References

1. 105 CMR 480.000 Minimum Requirements for the Management of Medical or Biological Waste (Massachusetts State Sanitary Code Chapter VIII)

2. Bloodborne pathogen Standard 29 CFR 1910.1030, and OSHA Instruction CPL, 2-2, 44C, Occupational Health and Safety Administration, 1999

3. HM 226, 49 CFR Part 171 ET. Al. Federal Register, 14 August 2002, Revisions to Standards for Infectious Substances, Final Rule.

4. Code of Federal Regulations, Hazardous Waste Criteria, 40 CFR 261, Subpart C and Subpart D, 40 CFR 262.11, and 21 CFR 1200-1316.

5. Stericycle, Inc., Medical Waste Acceptance Protocol, Northeast Version; May 2004

6. National Institutes of Health for Research Involving Recombinant DNA Molecules, April 2002.

Quick Reference Guide

<table>
<tr><td>Biohazardous Waste</td><td colspan="2">Packaging Guidelines
(All Bio Waste will be picked up on Thursday)</td></tr>
<tr><td rowspan="6">Definition: Waste contaminated with potentially infectious agents, animal carcasses and other tissues.
Examples:
Human tissues, blood, blood products, other tissues
Wastes from contact with patients/subjects
Laboratory cultures/waste contaminated with infectious agents
Live Vaccines
Syringes, hypodermic needles, scalpel blades, and other sharps
Animal carcasses and tissues
Contaminated bedding
Other contaminated items
Drug Enforcement Agency (DEA) and other Controlled Substances
Preparations from genetically altered living organisms </td><td>If Discarding:</td><td>Then:</td></tr>
<tr><td>Autoclavable or chemically treatable wastes</td><td>1. Disinfect using steam sterilization or an appropriate chemical disinfectant that will kill the target organism.
2. Record data (date, name, type of waste, temperature, dwell time, etc.) for each load rendered non-infectious by steam sterilization.
3. Test autoclave monthly by using biological spore tests (Pro- spores) and record results.
4. Package waste properly and dispose of as general solid waste trash (NO Biohazard signs allowed on bags and only clear autoclave bags are used).</td></tr>
<tr><td>Human blood, body fluids and tissues, medically generated wastes (patient contact), animal carcasses/tissues, and full sharps containers</td><td>1. Double bag in a rigid, leak-proof package (e.g. red plastic bag in a cardboard box) labeled with the “Biohazard symbol supplied by EH&S, and seal well with the translucent packing tape provided (no duct tape).
2. Limit weight to 40 pounds in EH&S box.
3. Fill out the label on the box with name, department, campus address, telephone, contents and date. Apply all appropriate stickers (PATH and barcode label from Stericycle)
4. All body fluids, tissue and animal carcasses must be frozen for a minimum of 48 hours.</td></tr>
<tr><td>Laboratory cultures and contaminated bedding</td><td>1. Treat using accepted lab procedures and autoclave using manufacturer’s instructions.
2. After treatment, handle as general waste</td></tr>
<tr><td>Biohazardous packaging and labeling supplies</td><td>1. For requests for packing materials or pickups go to: www.ehs.umass.edu Select Hazardous Waste Pickup Request</td></tr>
<tr><td>Other biohazardous materials</td><td>Contact Judy LaDuc, Biological Safety Services, at Environmental Health & Safety @ 545-7293 jladuc@ ehs.umass.edu</td></tr>
</table>

Quick Reference Guide

Sharps Container	**Disposal Information**	
Distribution & Disposal	**For:**	**Then:**
Examples: • Syringes • Scalpels • Razor Blades • Capillary Tubes • Pasteur Pipettes 	Sharps containers may be obtained by	1. Picking up the containers at the Chemical Stockroom located in the basement of the Lederle GRC Tower A 2. Requesting a sharps container drop-off by EH&S staff on line at: 3. http://www.ehs.umass.edu/lab-supplies
	Sharps Container Disposal	1. All sharps must be disposed of as a biohazardous/ medical waste. Sharps containers must not exceed the fill-line and be taped shut when full. 2. You may place a waste sharps pick up request by emailing EH&S at: https://cems.unh.edu/umass/CEMS/RequestRemoval

University at Massachusetts Amherst: Biological Waste Record for On-Site Treatment

Department: _____ Building: _____ Room: _____
Manufacturer: _____ Model #: _____ Serial #: _____
UMass Tag #: _____ Date Placed in Service: _____
Autoclave was: New /Used

Date	Quantity	Type	Treatment Method	Process Parameters				Printed Name Signature	QC Results Chemical or Spore + or -
				Time	Pressure	pH	Temp		
			Heat						
			Heat						
			Heat						
			Heat						
			Heat						
			Heat						
			Heat						
			Heat						
			Heat						
			Heat						
			Heat						

EXAMPLE

Chart prepared in accordance with M.G.L.c. 111 §§ 3, 5 and 105 CMR 480.000, minimum requirements for medical or biological waste.
Results should be reviewed, signed and dated by a laboratory supervisor, coordinator, principal investigator or EH&S Biosafety staff at regular intervals.

MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH
Medical or Biological Waste Record-Keeping Log
OFF-SITE TREATMENT

Facility Name and Address: University of Massachusetts at Amherst, 150 Infirmary Way, Amherst, MA 01003

In accordance with M.G.L. c. 111 §§ 3, 5, and 127A and 105 CMR 480.000: Minimum Requirements for the Management of Medical or Biological Waste State Sanitary Code, Chapter VIII), generators of medical or biological waste, which is shipped off-site for treatment, shall maintain a current record-keeping log with the following information: the exact date of shipment; the total number of containers; the type of waste; the total combined weight or volume; the name of the transporter with transporter identification number (if applicable); the verification (via check box) of shipping papers generated with receipt of corresponding tracking forms for each shipment; and the printed name and signature of the person responsible for shipping the waste.

Date	# Containers	Type	Volume Cu Ft	Transporter	ID #	Please Check: Shipping Paper/Tracking Form		Printed Name / Signature
		Regulated Med Waste NOS 6.2,UN 3291, PG II		Stericycle, Inc.	860.632.0294	❒	✓	
		Regulated Med Waste NOS 6.2,UN 3291, PG II		Stericycle, Inc.	860.632.0294	❒	✓	
		Regulated Med Waste NOS 6.2,UN 3291, PG II		Stericycle, Inc.	860.632.0294	❒	✓	
		Regulated Med Waste NOS 6.2,UN 3291, PG II		Stericycle, Inc.	860.632.0294	❒	✓	
		Regulated Med Waste NOS 6.2,UN 3291, PG II		Stericycle, Inc.	860.632.0294	❒	✓	
		Regulated Med Waste NOS 6.2,UN 3291, PG II		Stericycle, Inc.	860.632.0294	❒	✓	

EXAMPLE