



# Environmental Health & Safety

## Policy & Procedure Manual



Title: **Regulated Medical Waste Management**

1. **Purpose:** To establish policies, work practices, and systematic procedures for the handling, packaging, collection, treatment, and disposal of Regulated Medical Waste (RMW). The goal is to minimize waste generation and ensure safe and efficient handling of all RMW. In addition, this policy ensures compliance with federal, state and local regulations on proper handling of regulated medical waste.
2. **Scope:** This policy applies to University employees and other designated personnel who generate and/or manage those who generate RMW.
3. **Policy:** All RMW generated at this University shall be handled, packaged, collected, transported, treated, and disposed of in such a manner as to protect health and safety, assure compliance with environmental regulations and law, promote effective utilization of resources and contribute to and support the mission of the University. The University also supports and will strive to meet or exceed established regulated medical waste minimization objectives and similar initiatives.
4. **Responsibilities:** The Department of Environmental Health and Safety (EH&S) shall assume overall responsibility for coordination of the RMW program and shall assume responsibility for providing technical assistance and support to the RMW generators regarding matters relating to regulated medical waste management.
  - 4.1. Locations generating RMW will be responsible for ensuring that all RMW waste packaging, handling and storage procedures are followed to maintain federal and state regulatory compliance.
5. **References:**
  - 5.1. 6 NYCRR Part 360 and 364, New York State Department of Environmental Conservation, <http://www.dec.ny.gov/chemical/8789.html>
  - 5.2. 10 NYCRR Part 70, NYS Department of Health, <http://www.health.state.ny.us/facilities/waste/>
  - 5.3. N.Y. ADC. LAW § 16-120.1 : NY Code - Section 16-120.1: Storage, treatment, transportation and disposal of regulated medical waste, other medical waste and regulated household waste, <http://codes.lp.findlaw.com/nycode/ADC/16/1/16-120.1>
6. **Definitions:**
  - 6.1. Other Potentially Infectious Materials (OPIM): OPIM refers to any bodily fluid identified as potentially capable of transmitting a communicable disease.
  - 6.2. Regulated Medical Waste (NYS DOH): Any waste which is generated in the diagnosis, treatment or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals, when listed by the Department of Environmental Conservation (see

Section 27-1502 of the Environmental Conservation Law), provided, however, that RMW shall not include any hazardous waste identified or listed by the Department of Environmental Conservation.

- 6.3. Regulated Medical Waste (OSHA): Regulated Waste means liquid or semi-liquid blood or contaminated items that would release blood or Other Potentially Infectious Materials (OPIM) in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other OPIM and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.
- 6.4. Types of RMW: Six (6) subcategories exist within the general definitions of regulated medical waste. The last (sixth) subcategory provides for the Commissioner of Health to designate specific items which previously have not been considered as regulated medical waste. As no items have yet to be added to this subcategory, the remaining five are considered to be part of the current working definitions of regulated medical waste.
- 6.4.1. Cultures and Stocks: Cultures and stocks of agents infectious to humans, and associated biologicals, cultures from medical or pathological laboratories, cultures and stocks of infectious agents from research laboratories, wastes from the production of biologicals, discarded live and attenuated vaccines, and culture dishes and devices used to transfer, inoculate, or mix cultures, nutrient agars, gels, broths (including those utilizing human blood and blood products), human and primate cell lines, animal cell lines known or likely to be infected or contaminated with human microbes or agents classified as bloodborne pathogens.
- 6.4.2. Human Pathological Wastes: This waste shall include tissues, organs, body parts (except teeth and contiguous areas of bone and gum) and body fluids that are removed during surgery or autopsy or other medical procedures, or specimens of body fluids and their containers and discarded material saturated with such body fluids other than urine. This waste shall not include urine or fecal materials submitted for other than diagnosis of infectious diseases.
- 6.4.3. Human Blood and Blood Products: Discarded waste human blood or blood components, including serum and plasma, containers with free flowing blood or blood components or discarded saturated material containing free flowing blood or blood components; and materials saturated to the point of dripping with blood or blood products.
- 6.4.4. Sharps: Unused sharps and sharps used in animal or human patient care, medical research, or in clinical or pharmaceutical laboratories, including hypodermic, intravenous, or other medical needles, hypodermic or intravenous syringes to which a needle or other sharp is still attached, Pasteur pipettes, scalpel blades, or blood vials, and broken or unbroken glass (including slides and cover slips) in contact with infectious agents.
- 6.4.4.1. Infectious Agents: Organisms that cause disease or an adverse health impact to humans and listed in section 2.1 of the State Sanitary Code and those found in Biosafety Levels 2 through 4 of the Centers for Disease Control's Manual for Biosafety in Microbiological and Biomedical Laboratories. Other organisms defined as infectious by Infection Control or the Department of EH&S may also be included.
- 6.4.5. Animal Waste: Discarded materials including carcasses, body parts, body fluids, blood, or animal bedding contaminated with infectious agents or from animals inoculated during research, production of biologicals, or pharmaceutical testing with infectious agents.

## 7. Procedures:

### 7.1. General RMW Handling Methods

- 7.1.1. RMW as defined above must be placed in a properly labeled red bag or puncture resistant container. Waste which has a strong potential for leakage must be placed into double bags of which at least the outer bag is red in color. Items such as I.V. tubing or containers which contain small amounts (<20 cc) of fluids (blood) may be disposed of in this manner. Large amounts of fluids (>20 cc) cannot be disposed of in this manner.
- 7.1.2. The red bags, labeled with the generator's name, must be tied or otherwise secured so as to prevent leakage during storage, handling and transport. The red bags will be placed into RMW boxes, labeled with the generator's name, dated, sealed with tape and stored in a restricted area. Boxes, bags, tape and labels will be supplied by either a certified RMW waste contractor or by the Department of EH&S. The Department of EH&S or a certified RMW contractor will collect the RMW boxes on a scheduled day. Contact the EH&S department for the schedule for your area.
- 7.1.3. Employees handling RMW will wear personal protective equipment including nitrile gloves and safety glasses.
- 7.1.4. Employees handling RMW will have spill clean-up material made available when doing so.
- 7.1.5. All red bags, infectious agents or other RMW will be collected and disposed of as RMW. All waste will be scrutinized to insure proper packaging and disposal (i.e. general refuse free of potentially infectious waste material).
- 7.1.6. Any general waste that is found to contain RMW will be placed into a red bag and disposed of as RMW.
- 7.1.7. An inspection report must be created and notification will be given to the area supervisor when a violation of policy is identified by EH&S. Employees will be expected to review the incident and develop a "plan of correction" and submit it to the Department of EH&S.
- 7.1.8. Copies of the inspection report will be sent to the Department of EH&S and to the employees immediate supervisor.
- 7.1.9. The RMW is either treated in a New York State certified and permitted autoclave prior to disposal as non-hazardous or removed from the facility by a certified RMW contractor for treatment offsite.

Note: There are no certified autoclaves on campus.

### 7.2. Handling Methods for Sharps

- 7.2.1. All sharps must be disposed of in appropriately labeled puncture resistant sharps containers. Sharps containers used in the Life Sciences Building (LSB), the Center for Molecular Medicine (CMM) and the Health Sciences Center (HSC) [both towers] can be disposed of through EH&S on Wednesday's each week at the designated times. Replacement containers may be picked up at this time as well.

- 7.2.2. Sharps containers purchased by research labs may be placed inside properly packaged RMW boxes when full and disposed of as RMW.
- 7.2.3. All uncontaminated or clean disposable glass and rigid plastic-ware should be disposed of in an appropriate puncture resistant regular trash container.
- 7.2.4. Disposable sharps containers provided by EH&S or purchased directly can be disposed of through EH&S on the designated hazardous waste pickup date(s) for the building where the sharps were generated. Contact EH&S for the schedule for your area.
- 7.2.5. Dispose of sharps contaminated with <15 cc of antineoplastic fluids in a regular sharps container.
- 7.2.6. Dispose of sharps contaminated with >15 cc of antineoplastic fluids sharps in an approved sharps container which has been pre-labeled with BIOHAZARD and CHEMOTHERAPY labels. A Hazardous Waste Label must be placed on the container once generation begins. Contact the Department of EH&S Waste Management Coordinator for labels and assistance.

### 7.3. Disposal Methods for Liquid Waste

- 7.3.1. Liquid medical waste, including blood and body fluids, will be disposed of through the sanitary sewer system (i.e. toilet or hopper, but not the hand washing sink). Body fluids greater than 20 cc in containers which are not easily emptied (i.e. pleuravac or 1 liter evacuated bottles), or may cause unnecessary exposure to employees when poured, are to be segregated from other RMW. If possible, place the containers in a red bag, and then inside a box. Label the box as "BIOHAZARD." Free liquids must not be disposed of in red bags. Contact the Department of EH&S or Housekeeping Services for further instructions.
- 7.3.2. Dispose of liquid contaminated with a trace (<15 cc) antineoplastic fluid that is also RMW in a red bag and handle as RMW.
- 7.3.3. Dispose of liquid contaminated with >15 cc of antineoplastic fluid that is also RMW, in a yellow chemotherapy container that has been pre-labeled with "BIOHAZARD" and "CHEMOTHERAPY" labels. Contact the Department of EH&S for assistance.

### 7.4. Handling Methods for Pathological Waste

- 7.4.1. All animal or human tissue and anatomical parts will be placed into leak-proof red bags, labeled with the generator's name and placed in a fiber drum or other RMW container. The container also needs to be labeled with the generator's name, dated, sealed and stored in a restricted area. Properly packaged containers will be brought to the RMW transfer area on a scheduled day. The Department of EH&S or a certified RMW contractor will collect the containers for disposal.

### 7.5. RMW mixed with General Nonhazardous Waste

- 7.5.1. Any general waste that is found to also contain RMW, after transportation to a refuse disposal site, will be handled as RMW.
- 7.5.2. The waste transporter will immediately provide notification to the Department of EH&S or to as appropriate. The contractor will notify the University using the Waste Discrepancy /

Exception Report form (attached) and provide as much detailed information as appears on the form.

7.5.3. A certified RMW contractor will be contacted by either the Department of Environmental Health and Safety or Custodial Services to remove and properly dispose of the regulated medical waste.

7.5.4. If it can be determined which building, area/unit or laboratory generated the medical waste, immediate notification will be given to the area supervisor. These employees will be expected to review the incident and enact whatever may be necessary to assist in prevention of similar problems in the future. With this in mind, the area/unit will be required to develop a "plan of correction" and submit it to the Department of EH&S.

#### **7.6. Decontamination of Objectionable Waste**

7.6.1. Objectionable waste is any biological waste material that is not RMW that can be rendered non-objectionable by a chemical process or through autoclaving.

7.6.2. Liquid objectionable material may be autoclaved and poured down a drain.

7.6.3. Liquid objectionable material may also be treated with a 10% bleach solution or other disinfectant and poured down the drain.

7.6.4. Autoclave semi-solid objectionable media in an appropriate autoclave bag and check that the indicator on the bag changed color.

7.6.5. To avoid the misplacement of autoclaved bags the following steps must be followed:

7.6.6. Place the autoclave bag into a Red Regulated Medical Waste bag and then place the bag into a RMW box. Seal the RMW box and bring it to the scheduled hazardous waste pickup.

#### **7.7. Microbiological Specimens**

7.7.1. All non-infectious fungal, bacterial and virus cultures that have not been used in the diagnosis, treatment, or immunization of human beings or animals, in the research pertaining thereto, or in the testing of biologicals, can be autoclaved in an appropriate autoclave bag. Check that the indicator on the bag changed color.

7.7.2. To avoid the misplacement of autoclaved bags the following steps must be followed:

- Place the autoclave bag into a Red Regulated Medical Waste bag and then place the bag into a RMW box.
- Seal the RMW box and bring it to the scheduled hazardous waste pickup.

#### **7.8. Radioactive RMW**

7.8.1. RMW which is also radioactive will be disposed of in red bags and segregated from other waste. These red bags will be handled by Radiation Protection Services.

7.8.2. All Radioactive RMW questions should be directed to Radiation Protection Services. (Ext 2-6410)

7.8.3. Radioactive waste contaminated with an infectious agent and/or toxic chemical should be chemically inactivated. If contaminated with an infectious agent and a highly toxic chemical, do not use a disinfecting agent that may increase the toxicity of the contaminating chemical. All carcinogenic, flammable, or other toxic or hazardous waste substances must be clearly identified.

7.8.4. Radioactive Sharps (syringes and pipettes) must be placed in a radioactive waste drum.

7.8.5. All red bags and puncture resistant containers leaving the HSC and BST buildings must be brought through the radiation detector before transportation off-site.

7.8.6. If RMW is found reactive by the RMW vendor, they will notify EH&S within 72 hours if the radioactive material is still hot.

### 7.9. **Special Disposal**

7.9.1. Alternate methods of special infectious waste disposal will be directed by the Department of EH&S.

### 7.10. **General Non-Hazardous Waste**

7.10.1. Any discarded solid items that are not known or suspected to be contaminated with potentially hazardous materials.

7.10.2. **Used Animal Bedding** - Experimental animal bedding materials from healthy animals should be packaged in a doubled heavy-duty plastic garbage bag.

7.10.3. **Collection** - General, non-hazardous waste is routinely collected by the custodial or housekeeping staff and disposed into trash receptacles for disposal.

7.10.4. If the following items have not come in contact with infectious materials, they may be disposed of as municipal waste:

- Diapers
- feminine hygiene products

### 7.11. **Medical Waste Tracking Forms (Manifests) Process**

7.11.1. All Medical Waste Tracking forms (Manifests) must be signed and dated by the transporter and the generator.

7.11.2. All employees signing regulated medical waste manifests must be DOT Hazmat Trained.

7.11.3. The generator or staff member signing the manifest must check over items 1 through 14 on the tracking form, for purposes of verifying its accuracy.

7.11.4. After a thorough review of items 1 through 14, the generator must then sign the tracking form in item 15.

7.11.5. After the RMW transporter has also signed-off in item 16, a copy of the tracking form (Copy 6) will be given to the EH&S department.

- 7.11.6. Copy 1 of the RMW tracking form will be mailed back to the EH&S department after the RMW is received by the disposal facility.
- 7.11.7. A disposal facility representative will sign-off in item 22.
- 7.11.8. Both copies of the tracking form must be maintained by the EH&S department generation site for at least three years from the date the waste was accepted by the RMW transporter.
- 7.11.9. Both copies of manifest, original and TSD-Signed will be put into the RMW manifest binder.
- 7.11.10. If signed Treatment, Storage and Disposal Facility (TSDF) copy of manifest is not received within 30 days of shipped date, phone call to TSDF will be made to request a copy of TSD-signed copy.
- 7.11.11. If TSDF signed copy of manifest is not received within 45 days of shipped date, a formal exception letter must be sent to the NYSDEC and to the TSDF facility.

#### **7.12. Training**





- 7.12.1. All persons generating RMW or who are responsible for the carting of sealed boxes of RMW to a holding area or pickup shall be trained prior to doing such activities. Managers of such employees should also be trained.
- 7.12.2. The course code(s) for the training required are ENV 005 (Regulated Medical Waste Management) and ENV 012 (Signing a Regulated Medical Waste Manifest) for those who sign the shipping documents.
- 7.12.3. Additional information, including the training schedule and on-line training, can be found at <http://www.stonybrook.edu/ehs/training/>

#### **8. Related attachments, forms or documents:**

- 8.1. Sharps and Regulated Medical Waste Segregation Guide



## Sharps and Regulated Medical Waste Segregation Guide

Disposal Method	ITEMS
 <p><b>SHARPS</b></p> 	<ul style="list-style-type: none"> <li>• Syringes with needles attached (<i>No attempt should be taken to remove the needle from the barrel of the syringe</i>)</li> <li>• All needles, used or unused (i.e. hypodermic, HPLC, GC, etc.)</li> <li>• Scalpels and razors <i>contaminated</i> with infectious/biohazardous material<sup>1</sup></li> <li>• Blood vials</li> <li>• Glass or Plastic micropipette tips, Pasteur pipettes, “bulb” pipettes and serological pipettes <i>contaminated</i> with infectious/biohazardous material<sup>1</sup></li> <li>• Glass slides, cover slips, broken glass tubes and other laboratory glassware <i>contaminated</i> with infectious/biohazardous material<sup>1</sup></li> <li>• Broken plasticware <i>contaminated</i> with infectious/biohazardous material<sup>1</sup></li> <li>• Other sharp objects capable of puncturing or piercing the skin that has been <i>contaminated</i> with infectious/biohazardous material<sup>1</sup></li> </ul>
 <p><b>RED BAG WASTE</b></p>  <p>***RMW bags must <u>ALWAYS</u> be packed into a proper RMW box prior to disposal.***</p>	<ul style="list-style-type: none"> <li>• Plastic and unbroken glass Petri dishes <i>contaminated</i> with infectious/biohazardous material<sup>1</sup></li> <li>• Plastic tubes, syringes (<u><i>no needle attached</i></u>), flasks, plates <i>contaminated</i> with infectious/biohazardous material<sup>1</sup></li> <li>• Gloves, bench paper and towels, disposable gowns <i>contaminated</i> with infectious/biohazardous material<sup>1</sup></li> <li>• Plastic micropipette tips and pipettes<sup>2</sup> <i>contaminated</i> with infectious/biohazardous material<sup>1</sup></li> <li>• Cultures and stocks of infectious agents and associated biologicals that cannot be treated with disinfectants and rendered safe for drain disposal</li> <li>• Human pathological wastes</li> <li>• Human blood and blood products, items saturated with human blood</li> </ul>

<sup>1</sup> Infectious agents, biological toxins, human blood and body fluids, infected animals and contaminated bedding, all human and animal cell cultures, any substance, material or agent that poses a significant risk of transmitting infection and/or endangering human health.

<sup>2</sup> NOTE: non-infectious plastic micropipette tips and pipettes (Pasteur pipettes, “bulb” pipettes and serological pipettes) may be disposed of to the regular trash (suggested to first place in a sturdy outer box/container prior to being disposed of to the trash to protect against injury); however, sharps containers or RMW boxes may be used if they provide a more viable option for your particular lab space (contact EH&S for more information at 2-6410).