

3.1.15

EMS Aspects: Infectious Agents

Aspect Ranking: 7

The use of infectious agents is essential to research activities conducted at The University of Texas Health Science Center at Houston (UTHSC-H). The Safety, Health, Environment & Risk Management's (SHERM), Environmental Protection Program (EPP) assists with the management of infectious wastes through several means including, onsite treatment through chemical disinfection and steam sterilization. Biological waste materials may also be collected by a contractor for offsite treatment and disposal.

Biological Waste Management

Task/Activity Description:

Biological wastes are a specific type of hazardous waste subject to 25 TAC 1.132 which states the definition, treatment, and disposition requirements for special waste from health care-related facilities (SWFHCRF).

Solid biological waste from research laboratories should be autoclaved near the point of generation. Minimum autoclave waste treatment parameters are 30 minutes, at 15 PSI, at least 121 degrees Celsius. As part of the treatment process, the researcher or waste autoclave room attendant must also fill out the use log and perform routine sterility or parameter monitoring as detailed in Guidance Document 2.2 - Onsite treatment of SWFHCF.

If a waste autoclave is inaccessible to the department, or if the biological waste contains materials such as fecal samples, nanoparticle waste, or exempt quantities of radioactive material, the solid waste may be shipped offsite for treatment and disposal.

Sharps are placed into rigid plastic containers provided at no cost by the EPP. The Environmental Protection program collects full, closed sharps containers directly from the research laboratories or clinics.

Researchers and clinicians at the Medical School and Mental Science Institute can request biological waste boxes and liners by calling the hazardous waste line at 713-500-5837. Researchers and clinicians at other locations can obtain boxes and liners at a regional biological waste storage rooms.

Key Control Points:

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- Biological wastes are stored in a secured area, or waste pick-ups are scheduled by supervisor or staff by calling automated waste collection line at 713-500-5837 Option #3, waste is collected/disposed by EPP

Related Forms, Records, SOPs:

- Institutional Biosafety Manual
- Guidance Document 2.2 - Onsite treatment of SWFHCF
- Texas Administrative Code (25 TAC 1.132)
- Texas Administrative Code (30 TAC 330.1201)

Personnel Responsible:

Laboratory Personnel

- Autoclave applicable biological wastes
- Ensure biological waste containers ready for pickup are closed
- Transport wastes to secure regional biological waste storage rooms
- MSB and MSI laboratories, call EPP and request waste pickups

Safety Specialists, EPP

- Provide containers, red liners, and sharps containers
- Perform biological waste pick-ups and transport to secure storage area
- Document number of biological waste pick-ups on a monthly basis, record number of pickup request on the EPP compliance calendar
- Maintain regional biological waste storage rooms and arrange for offsite shipments

Safety Manager, EPP

- Review waste volumes collected
- Report waste management activities to Biological Safety Committee and Executive Safety Council

EH&S Director

- Provide management review

Training – Medical Waste Disposal and Environmental Awareness

Task/Activity Description:

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For the communication of environmental programs and environmental management systems, the EHS provides training initial training during employee orientation. This training is also offered on a monthly basis to UTHSC-H laboratory and clinical staff and is available online through the EHS webpage.

This training introduces and reinforces environmental management system principles, waste management practices specific to laboratory operations, and environmental concerns and compliance requirements for biological waste management.

Additional training specific to onsite treatment via autoclaving is offered on annual basis.

Key Control Points:

- Communicate environmental compliance requirements, environmental management concepts, and emergency procedures to personnel who generate medical wastes and infectious agents.

Related Forms, Records, SOPs:

[EPP Waste Disposal Procedures](#)

Personnel Responsible:

Principle Investigators

- Ensure laboratory staff attend training

Safety Manager/Safety Specialists, EPP

- Develop training materials and submit updates to for web page
- Present training materials to laboratory and clinical staff
- Document training by obtaining a sign in sheet with all participants listed, deliver sign in sheet to EH&S administrative assistant who will enter names of personnel trained into a training data base

EH&S Director

- Provide management review, liaison with Principle Investigators
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Routine Management of Infectious Agents and Biological Waste to meet regulations:

TCEQ /Medical Waste Management (30 TAC 330.2001)

The Environmental Protection Program utilizes the UTHSC-H Institutional Biological Safety Committee for review and approval of experimental protocols utilizing infectious materials. The review process includes waste disposal and management procedures.

Emergency Response for Medical Wastes

Incidents reported to SHERM are entered into an Incident database. The database is built into the EMS to enter in incidents as they occur, allowing for tracking, documentation, follow-up, and corrective action. Employees handling bloodborne pathogens are trained annually at an appropriate level on emergency response procedures. The universally accepted biological hazard warning symbol is utilized throughout the institution to notify workers about the presence of infectious agents.