

UT Health Science Center: HM5201 - Regulated Medical Waste Policy	
Version 1	Publication Date: 06/14/2022

No./Title: HM5201 – Regulated Medical Waste Policy	Resp. Office: Campus Safety and Emergency Management	Effective Date: 6/30/2017
Category: Hazardous Materials Management	Last Review: New	Next Review: 6/30/2020
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Related Policies: UT System Safety Policy - SA0400 UT System Safety Policy SA0100 UT System Safety Policy SA0700		
Forms: COMPRESSED GAS GUIDELINES		

PURPOSE, APPLICABILITY, AND SCOPE:

It shall be the policy of the University of Tennessee Health Science Center to comply with all State and Federal Regulations dealing with the safe transport of regulated medical waste (RMW). Regulated Medical Waste is material that may be contaminated with blood, bodily fluids, or other infectious materials, as well as sharps. RMW must be properly handled, collected, segregated, packaged, stored, labeled, transported and disposed of in order to minimize the risk of transmitting infection or endangering human health.

The primary objective is to prevent harmful exposure to Bloodborne pathogens. The US Occupational Safety and Health Administration (OSHA) Bloodborne Pathogen Standard regulates handling and storage of RMW in labs and patient care areas.

This policy is applicable to all students, faculty, and staff within University of Tennessee Health Science Center clinics, labs, patient care units, Colleges and departments, and any entity that generates a waste stream that may be contaminated by blood, body fluids or other potentially infectious materials, thus posing a significant risk of transmitting infection.

This policy is also applicable to all tenant units of the University of Tennessee Health Science Center. Specific guidance will be provided in this document.

ABBREVIATIONS, ACRONYMS AND DEFINITIONS:

Although there is no universally accepted definition for medical waste, the definitions offered by most regulatory agencies are similar. Most federal and state agencies differentiate between common medical waste and those wastes with the potential for causing infection and for which special precautions are prudent. Depending on the state, these wastes are referred to as

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- regulated medical waste (e.g., NY, RI)
- infectious waste (e.g., CO, NE, NV)
- biomedical waste (e.g., CT, FL, GA, ME, WA).

Regulatory definition and oversight of medical/infectious waste and its disposal are typically promulgated by the state. Tennessee Department of Environment and Conservation provides guidance and can be found in Rule 04000-11-01-01(4)(c)1. Definitions contained within this rule are below.

- **Regulated Medical Waste** -means liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and microbiological wastes containing blood or other potentially infectious materials.
- **BSL-1 materials** – Agents and organisms not typically associated with disease in healthy adults that are handled at biosafety level-1 (examples include E. coli K12, Bacillus subtilis, S. cerevisiae, adeno-associated virus, and laboratory animals).
- **BSL-2 materials** – Infectious agents having the potential for causing disease or adverse health effects in healthy adult humans that are handled at biosafety level-2 (examples include Salmonella spp., Staphylococcus aureus, Hepatitis B virus, lentiviral vectors). Infection is typically the result of direct contact, such as a needle stick, splash to mucous membrane or nonintact skin, or ingestion.
- **BSL-3 materials** – Infectious agents having the potential for causing disease in healthy adult humans through the respiratory route, that are handled at biosafety level-3 (examples include Mycobacterium tuberculosis, SARS coronavirus).
- **Biomedical material** – Includes human or animal blood, serum, tissue, cultured cells or cell lines and cultures of infectious or microbial agents that are handled in a laboratory or patient care area. Refers to the products themselves or common lab supplies that become contaminated with these materials.
- **Pathological waste** (i.e., tissues, organs, body parts, and body fluids) that are removed during surgery and autopsy;
- **Human blood and blood products** Waste blood, serum, plasma and blood products.
- **Cultures and stocks of infectious agents (microbiological waste)** . Cultures and stocks of infectious agents, including specimen cultures from medical and pathological labs, cultures and stocks of infectious agents from research and industrial labs, wastes from

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the production of biological, discarded live and attenuated vaccines, and culture dishes and devices used to transfer, inoculate and mix cultures;

- **Contaminated sharps** Contaminated hypodermic needles, syringes, scalpel blades, Pasteur pipettes, and broken glass.
- **Isolation waste** Generated by hospitalized patients isolated to protect others from communicable disease.
- **Contaminated animal carcasses, body parts and bedding** Contaminated carcasses, body parts, and bedding of animals that were intentionally exposed to pathogens in research in the production of biologicals, or in the *in vivo* testing of pharmaceuticals.
- **Other Potentially Infectious Materials (OPIM)** - Any unfixed tissue or organ (other than intact skin) from a human (living or dead). Any body fluid that is visibly contaminated with blood. All body fluids in situations where it is difficult or impossible to differentiate between body fluids
- **Generator** means any person, by site, whose act or process produces RMW or whose act first causes a RMW to become subject to regulation.
- **Point of origin-** The point at which RMW is generated, and used in conjunction with GENERATOR. The point of origin is used for regulatory tracking mechanisms concerning RMW.
- **Sharps-** All discarded sharps (i.e., hypodermic needles, syringes, Pasteur pipettes, broken glass, scalpel blades) used in patient care or which have come into contact with infectious agents during use in medical, research or industrial labs;
- **BBP** - Bloodborne Pathogens means 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).
- **Contaminated** - means the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.
- **Decontamination** - means the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.
- **Disposal** – means the final disposition of the RMW following decontamination. This is typically accomplished via landfilling and is performed following decontamination by the University’s contracted provider of RMW disposal services. In some cases (animal carcasses) incineration is utilized as a disposal method by the contractor or the University.

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- **Exposure Control Plan-** This instruction provides for uniform policy for protection of OSHA personnel who, as part of their job, face reasonably anticipated exposure to bloodborne pathogens.

PROCEDURES:

The following minimum framework shall be met by the University of Tennessee Health Science Center and its associated units. More detailed procedures and guidelines shall also apply through local guidance with the IBSO.

It must be stated that each Generator is also considered a *point of origin*. Generators must have their own sub accounts to the main UTHSC contract and are responsible for the regulations as prescribed by this document, college and departmental procedures, and other regulatory requirements.

Generators are often co-located on the University of Tennessee Health Science Center campus with other departments. In the case that a generator shares a location with other generators, and they are disparate of department, college, or otherwise then that generator must independently follow this policy as prescribed regardless of any local agreements between departments.

At no time shall RMW be generated and mixed with other generator RMW.

A. **EXPOSURE CONTROL PLAN:**

- An Exposure Control Plan is required. An Exposure Control Plan is important because it helps you protect your workers from exposures to blood and other body fluids. By protecting workers, there is also control to exposure incident costs. An Exposure Control Plan is meant to be a "living" document, used as a source of information for answering bloodborne pathogen-related questions and to help ensure exposure control activities are in place.
 - i. This plan must be written specific to each generator or facility,
 - ii. must be reviewed and updated at least yearly,
 - iii. and must be readily available to all workers.

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- If exposures to blood or other body fluids are reasonably anticipated, it is required by the Occupational Safety and Health Administration (OSHA) Bloodborne Pathogens Standard to develop an Exposure Control Plan.
- Exposure Control Plans may suffice as procedural documents as long as they contain at a minimum:
 - i. Universal Precautions
 - ii. Occupational Exposure levels
 - iii. Engineering Controls and Work Practices
 - iv. PPE
 - v. Housekeeping
 - vi. Labeling practices
 - vii. Occupational Health Information
 - viii. Post exposure, evaluation, and follow-up procedures
 - ix. Employee Training
 - x. Recordkeeping
 - xi. Spill Control Procedures.

B. Regulated Medical Waste

- RMW must be carefully containerized to eliminate the chances of exposure during transport to its ultimate disposal site. Red RMW bags are imprinted with the universal biohazard symbol, or the word “biohazard”, and the generator name and address. Red RMW bags must always be housed in a rigid container. Red bags are for items that are not expected to poke or tear the bag when it is lifted.
- Open rigid containers lined with a red bag are acceptable in laboratories, since these are restricted environments, but not in public areas such hallways. Open rigid containers lined with a red bag are **not permitted** in patient care areas. These containers must have a lid that is closed when the container is not being used; pedal bins are preferable. Red bags that are ready for collection must be taped or tightly tied closed.
- RMW cannot be maintained in laboratories in a putrescent state and must therefore be collected on a regular basis.
- At no time shall RMW be disposed of in containers or bags other than prescribed by this document, OSHA, CDC, or other regulatory guidelines.
- RMW **SHALL NOT** be handled by other than the point of origin generator trained staff, who are familiar with the RMW and its exposure hazards. At no time will

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Campus Facilities staff, or other personnel who are not directly part of the generator waste stream handle RMW.

- RMW Containers awaiting pickup and disposal by University contracted providers shall be secured in a location where it is not directly accessible to the public.
- PPE shall be worn at all times while handling RMW

C. CONTRACT MANAGEMENT

UTHSC will maintain a contract vendor for RMW pickup and disposal for all campus generators. This account is centrally billed, and controlled by the UTHSC Office of Research. The authorization process for establishing sub-accounts, or changes in site pickup location are processed by the Campus Safety, Research Safety, or Institutional Biological Safety Officer (IBSO). Contact the IBSO to request any changes or new accounts.

Direct contact with the vendor will not be honored. Generators will not be allowed to contact Stericycle directly to make changes to the account, pickup sites, or any administrative change.

- Generators will be allowed to contact Stericycle for emergency pickups, request supplies, or other operational matters pertaining to their location and the disposal of RMW.

UTHSC TENTANTS:

The University of Tennessee Health Science Center will conduct a review of the regulated medical waste (RMW) generator locations on the campus annually. If you have been identified as a medical provider, that generates RMW, and after a review of your leasing agreement with the UTHSC contracts office, and disposal of the RMW is not covered under your lease; it is imperative that your practice contract with a licensed provider for these services.

Per regulatory compliance, RMW waste must be packaged and disposed of in an approved manner. Numerous qualified vendors in the area can service your needs if you do not currently have a contract in place. UTHSC cannot accept or remove RMW from your practice per Tennessee, EPA, and OSHA regulations in any form.

Willful and knowing violations can potentially lead to criminal prosecution, loss of tenancy, etc.

Recordkeeping:

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Exposure Control Plans are to be held onsite, and available to all faculty, staff, and students that request them for familiarization and review. Plans are to be reviewed and updated at least annually.

Training certificates shall be held locally with the generator. These certificates shall be available for review by Campus Safety or Research Safety.

TRAINING AND INFORMATION REQUIREMENTS

All generators must annually complete Biosafety training that includes the information about the segregation, handling, and management of RMW. All employees that package RMW for transport or sign shipping papers must complete Hazardous Materials training compliant with US DOT requirements. It is the responsibility of each department to ensure that personnel training is documented and up to date. Training is provided by the IBSO and Office of Research Safety. Training may also be available from the RMW disposal vendor.

SOURCES OF TRAINING:

1. RMW Disposal Vendor
2. As directed by the IBSO

ATTACHMENTS:

- None

ASSOCIATED STANDARDS:

- OSHA CPL 02-02-060 - *Exposure Control Plan for OSHA Personnel with Occupational Exposure to Bloodborne Pathogens*
- 29 CFR 1910.1030, *Bloodborne Pathogen Standard*
- OSHA, <https://www.osha.gov/Publications/osh3186.pdf>, *Bloodborne Pathogens and Hazard Communications Standards*
- Centers for Disease Control, <https://www.cdc.gov/niosh/docs/2009-111/pdfs/2009-111.pdf>, *Complying with OSHA Bloodborne Pathogens Standard*
- State of Tennessee, (TDEC Rule 0400-11-01-.04(2)(k)(4)), *Tennessee Department of Environment and Conservation, Special Waste Guidance*