



DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
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FALLS CHURCH, VA 22042

IN REPLY REFER TO
BUMEDINST 6280.1C
BUMED-M41
28 Dec 2016

BUMED INSTRUCTION 6280.1C

From: Chief, Bureau of Medicine and Surgery

Subj: MANAGEMENT OF REGULATED MEDICAL WASTE

Ref: (a) 29 CFR Part 1910.1030
(b) BUMEDINST 6220.14
(c) BUMEDINST 6570.3A
(d) BUMEDINST 6260.30B
(e) BUMEDINST 6210.3
(f) OPNAVINST 5090.1D
(g) 49 CFR 100-185
(h) 40 CFR 60 and 62

Encl: (1) Requirements for Management of Regulated Medical Waste
(2) Extracted Tooth Decision Tree

1. Purpose

a. To provide standards for management of regulated medical waste (RMW) generated from processes at Bureau of Medicine and Surgery (BUMED) Budget Submitting Office (BSO) 18 facilities or received by BUMED facilities prior to treatment and disposal. RMW is often used interchangeably with infectious waste, biohazardous waste, and biomedical waste.

b. This instruction does not reflect regulatory variations found in many state or overseas jurisdictions. The user of this instruction must ascertain and adhere to applicable requirements that exceed the requirements of this instruction, including state and local requirements. In addition to this instruction, personnel conducting activities outside of the continental United States, Hawaii, Alaska, and its territories will adhere to their host nation Final Governing Standards (FGS) and, where a host nation FGS does not exist, the Overseas Environmental Baseline Guidance Document (OEBGD). In the event that variations in the requirements of this instruction and other regulatory requirements exist, the most stringent apply.

c. The regulations provided in reference (a) and the policies in reference (b) describe the processes that BUMED facilities will implement to protect personnel from occupational exposures to blood and other potentially infectious material. Pharmaceutical wastes and wastes generated in dental treatment spaces have additional considerations identified per references (c) and (d), respectively. Wastes generated from the management of biological select agents and toxins must be managed per reference (e).

d. This is a complete revision and must be read in its entirety.

2. Cancellation. BUMEDINST 6280.1B.

3. Scope. This instruction applies to all BUMED BSO 18 facilities that generate RMW. These requirements also apply to Army Veterinary facilities aboard Navy shore installations per the established Memorandum of Agreement between BUMED and the United States Army Office of the Surgeon General of 20 February 2014. This instruction does not apply to personnel assigned to non-BUMED facilities unless the cognizant activity establishes a policy to adopt this instruction for its use. Shipboard medical personnel are governed by the most current version of the Afloat Medical Waste Management Guide. Regulated medical wastes generated by non-BUMED facilities or received by non-BUMED facilities for management are governed by the requirements of reference (f). The Medical Officer of the Marine Corps provides separate guidance to Marine Corps activities.

4. Background. Reference (f) authorizes and instructs BUMED to develop and issue policy guidance for the disposition of dental, veterinary, medical, and pharmaceutical waste for BUMED facilities. The classification between non-RMW and RMW generated in the work space is critical for proper management of waste.

a. Non-RMW is solid material intended for disposal which is produced as the direct result of non-infectious patient diagnosis, treatment, therapy, or medical research other than those characterized as RMW in enclosure (1). Unless local requirements supersede this policy, examples include bandages containing very small amounts of blood or other body fluids, disposable catheters that may contain trace amounts of liquid, swabs, used disposable drapes, gowns, masks, and empty used specimen containers and urine cups. Non-RMW requires no further treatment and is disposed of as general waste and trash.

b. RMW is generated during diagnosis, treatment, or immunization of humans or animals and is capable of causing disease or would pose other adverse health risks to individuals or the community if improperly handled. RMW is organized into nine groups that are managed based on associated risks, as identified in enclosures (1) and (2).

5. Action. Commanders, commanding officers, and officers-in-charge of BUMED facilities generating RMW must comply with applicable regulations or status of forces agreements regarding RMW and must ensure guidelines in this instruction are adopted and implemented accordingly.

6. Records Management. Records created as a result of this instruction, regardless of media and format, must be managed per SECNAV M-5210.1 of January 2012.

7. Review and Effective Date. Per reference (a), this instruction will be reviewed annually on the anniversary of its issuance date to ensure applicability, currency, and consistency with Federal, DoD, SECNAV and Navy policy, and statutory authority using OPNAV 5215/40 Review of Instruction. This instruction will automatically expire 5 years after its issuance date unless reissued or canceled prior to the 5-year anniversary date, or an extension has been granted.

8. Reports. The reports required in paragraphs 3d(4), and 4f(1)(c), are exempt from reports control per SECNAV M-5214.1 of December 2005, part IV, paragraph 7k.


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Releasability and Distribution:

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REQUIREMENTS FOR MANAGEMENT OF REGULATED MEDICAL WASTE

1. Introduction. Workers in the healthcare setting must be protected from infectious exposures. This instruction works concurrently with references (a) and (b) to protect healthcare staff and others from exposures to blood-borne pathogens. This instruction does not reflect regulatory variations found in many state or overseas jurisdictions. The user of this instruction must ascertain and adhere to applicable requirements that exceed the requirements of this instruction. Personnel conducting activities OCONUS, Hawaii, Alaska, and its territories will adhere to their host nation FGS and, where an FGS does not exist, the OEBGD. In the event that variations in the requirements of this instruction and those regulatory requirements exist, the most stringent must apply. There are nine primary groups of RMW, each with specific management, treatment, and disposal criteria:

- a. Group 1: Cultures, stocks, and vaccines
- b. Group 2: Pathological waste
- c. Group 3: Blood and blood products
- d. Group 4: Used sharps
- e. Group 5: Animal Waste (from animals exposed to infectious agents during research, production of biologicals, or testing of pharmaceuticals)
- f. Group 6: Isolation Wastes (including bedding from patients or animals from BioSafety Level 4 (BSL 4) agents)
- g. Group 7: Unused sharps
- h. Group 8: Other (including fluids that are designated by the local infection control authority)
- i. Group 9: Chemotherapy Trace Wastes

2. Definitions

a. Animal waste. This category is specific to infectious animals, contaminated animal carcasses, body parts, and bedding of animals known to have been exposed to infectious agents during treatment, research, productions of biologicals, or testing of pharmaceuticals. Other wastes generated from the treatment of non-infectious animals in the veterinary facilities are not included in this category; however, they are included in the other applicable RMW categories for management.

b. Bio Safety Level. There are four levels (1-4) with specific combination of work practices, safety equipment, and facilities, which are designed to minimize the exposure of workers and the environmental to infectious agents. Level 4 is the most stringent and applies for work with dangerous and exotic agents that pose a high individual risk of life threatening disease, which may be transmitted via the aerosol route and for which there is no available vaccine or therapy. Also see paragraph 2g of this enclosure for isolation wastes.

c. Blood and blood products. Free-flowing liquid human blood, plasma, serum, and other blood derivatives (e.g., blood in blood bags or bloody drainage in suction containers); absorbent materials soaked or dripping with blood; and items caked with dried blood, capable of releasing blood if handled.

d. Cultures and stocks. Infectious agents and associated biologicals, including those from medical and pathological laboratories, as well as dishes and devices used to transfer, inoculate, and mix cultures.

e. Dual waste. Waste that qualifies as both a RMW and hazardous waste (HW). Examples may include a syringe used to administer a medication that classifies as a pharmaceutical HW or dental amalgam waste.

f. Hazardous Waste. A HW is a solid waste (SW), or combination of SW, which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may (a) cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or (b) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

g. Isolation wastes. Wastes, including bedding, from patients or animals from BSL 4 areas. Examples include biological waste and discarded materials contaminated with blood, excretion exudates, secretions from humans who are isolated to protect others from highly communicable disease, and secretions from isolated animals known to be infected with highly communicable diseases caused by BSL 4 agents including pox viruses and arboviruses.

h. Non-regulated medical waste (non-RMW). Waste generated in the health care setting which is non-infectious and requires no additional treatment before disposal. Non-RMW can be processed as general waste, using accepted methods of collection, storage, transport, and disposal. Examples include used personal hygiene products (e.g., diapers, facial tissues, and sanitary napkins not originating from post-partum suites or gynecological surgical wards) and absorbent materials containing very small amounts of blood or other body fluids (e.g., band-aids). It is critical that workers understand local requirements regarding the classification of these materials as some agencies require all patient waste to be managed as RMW. Similarly, facilities operating overseas may need to classify and manage some of these items as RMW per host nation environmental FGS or the OEBGD.

i. Pathological waste. Organs, tissues, body parts other than teeth, products of conception, and fluids containing tissue removed by trauma or during surgery or autopsy or other medical procedure. These wastes are typically not considered pathological waste if they have been fixed in formaldehyde and should then be disposed of per state, local, or FGS regulations. This category includes similar wastes generated in the Veterinary clinics (e.g., from surgical procedures), but does not include hair, nails, extracted teeth, carcasses of road kills, euthanized animals, or animals dying of natural causes.

j. Personal Protective Equipment. A device or item to be worn, used, or put in place for the safety or protection of an individual or the public at large, when performing work assignments in or entering hazardous areas or under hazardous conditions. Equipment includes an article of clothing, hearing and eye protection, respirators, etc.

k. Regulated medical waste (RMW). Waste generated during diagnosis, treatment, and immunization of humans or animals and is capable of causing disease or would pose other adverse health risks to individuals or the community if improperly handled. RMW is organized into nine groups that are managed based on associated risks. Examples include cultures, blood and blood products, absorbent materials saturated with blood or other body fluids, pathological wastes, any wastes originating from medical isolation rooms, sanitary napkins originating from post-partum suites or gynecological surgical wards, any wastes generated during the care of patients that are deemed to be potentially infectious, and all sharps. Other potentially infectious wastes include human body fluids such as semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, body fluid visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids, Human Immunodeficiency Virus (HIV)-containing cell or tissue cultures, organ cultures, and HIV- or Hepatitis B Virus (HBV)-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

l. Sharps. Hypodermic needles, syringes (with or without the attached needle), Pasteur pipettes, scalpel blades, blood collection tubes and vials, test tubes, needles attached to tubing, dental burs, endodontic files, culture dishes (regardless of presence of infectious agents), glassware (broken or unbroken), damaged dishes, dishes with sharp edges that were in contact with infectious agents, microscope slides, and cover slips. These may be used or unused. Engineered plastics designed to withstand breakage and without sharp edges (e.g., some plastic test tubes, vials, and petri dishes) may be classified as non-sharps RMW.

m. Chemotherapy trace waste. Needles, empty vials, syringes, gowns, and tubing that contained chemotherapeutic pharmaceuticals or were exposed to chemotherapeutic pharmaceuticals during treatment of the patients. These wastes must be classified as empty (less than 3 percent of its full capacity remaining) to meet this definition. Wastes of this nature that are not classified as empty must be managed as bulk chemotherapy waste per the requirements of reference (c).

3. Roles and Responsibilities

a. Chief, BUMED

(1) Formulate and disseminate Navy Medicine policy and guidance related to the management of RMW.

(2) Coordinate RMW policy, roles, and responsibilities with Defense Health Agency, Chief of Naval Operations, Office of the Secretary of Defense, and Naval Facilities Engineering Command.

b. Commanders, Navy Medicine echelon 3 Activities

(1) Ensure an echelon 3 Environmental Program Manager (EPM) has been appointed per BUMED Notice 5090 of 8 June 2016.

(2) Execute requirements as set forth in this instruction and coordinate with command EPMs to ensure that they are properly implementing a compliant RMW management program.

(3) Respond to BUMED requests for information including compliance data, budget and execution, contracting, and inspections.

c. Commanding Officer and Officer in Charge

(1) Support compliance with applicable regulations or status of forces agreements regarding RMW and ensure guidelines in this instruction are adopted and implemented accordingly.

(2) Ensure an EPM has been appointed at commands determined to be Environmental Management System (EMS)-appropriate or that have subordinate commands generating RMW, or appoint an Environmental Point of Contact (EPOC) at commands determined not to be EMS-appropriate and without subordinate commands. The EPM and EPOC must be designated in writing and have responsibility to manage environmental programs, including the management of RMW. Refer to BUMED Notice 5090 of 8 June 2016 for additional guidance on EMS-appropriate commands and templates.

d. EPM

(1) Ensure that RMW is identified and managed according to existing regulations and policies, including adherence to the most stringent requirements applicable to a site are followed.

(2) Provide day-to-day management of the RMW program at the parent command and oversee subordinate commands, including ensuring proper segregation, collection, storage, preparation for transport, and recordkeeping.

(3) Upon assuming duties, unless previously trained, the EPM must take environmental training, or within one year of appointment. Ensure to maintain appropriate training thereafter (e.g., annual refresher), per reference (a).

(4) Ensure that departments generating and handling RMW at the parent command and the EPOCs at the subordinate commands are properly trained regarding the requirements for management of RMW in their work spaces.

(5) Develop, implement, and maintain a written Medical Waste Management Plan for the parent command and all subordinate commands.

(6) Ensure training records are retained for personnel generating and handling RMW at the parent and subordinate commands. If the training records are retained in a centralized system for the command, the EPM must be able to demonstrate that the training of appropriate personnel has been completed.

(7) Coordinate with EPOCs at subordinate commands (e.g., branch clinics) to ensure that they are properly implementing a compliant RMW management program.

(8) Provide subordinate commands with the technical support and guidance required to ensure compliance at all facilities under the parent command.

(9) Visit each subordinate command at least once per year to assess the environmental compliance posture and provide assistance as required.

e. EPOC

(1) Provide overall management of the RMW program for the site, including proper segregation, collection, storage, preparation for transport, and recordkeeping.

(2) Coordinate with the EPM at the parent command to ensure compliance with RMW management requirements. Inform the EPM of any RMW spills during handling, transport, or storage. Consult with the EPM and initiate root cause analysis to identify cause and minimize the likelihood of recurring spills.

(3) Attend initial environmental training upon arriving at the duty station or within one year of appointment and maintain appropriate training thereafter (e.g., annual refresher), per reference (a).

(4) Ensure that departments generating and handling RMW at the site are properly trained in the RMW management for their work spaces.

(5) Ensure training records are retained for command personnel generating or handling RMW. If the training records are retained in a centralized system for the command, the EPOC must be able to demonstrate that the training of appropriate personnel has been completed.

f. Employees Handling RMW

(1) Properly manage the RMW generated in the work space, including segregation of the RMW from other wastes (e.g., general trash and other non-RMW waste) at the point of generation.

(2) Attend initial environmental training upon arriving at the duty station and maintain appropriate training thereafter (e.g., annual refresher) including management of RMW.

(3) Follow appropriate procedures for the collection, packaging, and transfer of the RMW.

(4) Report any spillages or leakages of RMW (e.g., while transferring RMW or leakage from storage) to the EPM or the EPOC as appropriate. Ensure spills or leaks are contained and follow proper procedures to cleanup including the use of personal protective equipment (PPE) (e.g., gloves, masks).

4. Action

a. Containers

(1) Within the facility, all non-sharps RMW must be placed in containers appropriate for the waste that are clearly marked with the universal biohazard symbol, labeled with the word "BIOHAZARD", and red in color. The only exception must be for trace chemotherapy wastes, which must be placed in the container, labeled, and managed per reference (c). Red containers must not be used to collect anything other than RMW within a facility. Group-specific requirements for collection and segregation are included in paragraph 4.b of this instruction. Some host nations require specific containers for transport that may be of different color or marking. This variation must be documented in the Medical Waste Management Plan required by paragraph 4g(1) of this enclosure.

(2) Containers used for the collection of non-sharp RMW must be lined with plastic RMW bags that are marked and certified by the manufacturer to meet the 165 gram (g) Impact Strength American Society for Testing and Materials (ASTM) D 1709-01 and the 480g Tear Strength ASTM D 1922-00a standards, per reference (g). Bags must be red or orange and must have the universal biohazard symbol permanently marked on the outside. In areas where RMW is rarely generated (e.g., very small labs or clinics), personnel may use red bags per reference (a), which may or may not meet the ASTM standards provided they are properly marked and are placed in bags meeting the ASTM standards prior to transport within or outside of the facility.

(3) Sharps must be collected in rigid, red, or clear containers that are puncture-resistant and manufactured specifically for the collection of sharps. These containers and the exterior container (e.g., wall-mount) must be marked with the international biohazard symbol.

(4) Reusable outer containers must be constructed of smooth, easily cleaned materials, and must be decontaminated after each use per reference (b) and Navy and Marine Corps Public Health Center Technical Manual (NMCPHC-TM-OEM 6260.7 Nov 2010).

b. Collection/Segregation

(1) All RMW containers must remain closed when not in use. Per Occupational Safety and Health Administration (OSHA) interpretation, if there are workers in the area, the container may be considered “in use”; however, when workers leave the area (e.g., for lunch, for a meeting, or at the end of the work shift) the container must be closed.

(2) Group 1: Cultures, stocks, and vaccines

(a) Separate microbiologic waste such as cultures and stocks of etiologic agents from general waste for decontamination. Liquid wastes in this group (e.g., liquid culture media) may be either steam sterilized and disposed of in the sanitary sewer system (pending approval from the local jurisdiction) or kept in original glass containers and placed in sharps containers for treatment and disposal.

(b) Full vials of vaccine or nasal mist vaccine dispensers should be returned through the reverse distribution program managed by the pharmacy, as available. Because vaccines are produced from viruses, they are typically classified as RMW for the purposes of disposal; however, some vaccines require management as HW (e.g., vaccines containing thimerosal). Unless the vaccine requires management as HW, place full vials and dispensers ineligible for reverse distribution and all partially used vials and dispensers in a sharps container. If the vaccine requires management as HW, the EPM or host installation environmental department should be consulted to ensure that it is properly managed to address the potential for a dual hazard waste.

(c) Empty (less than 3% of capacity remaining) vaccine vials and nasal mist vaccine dispensers may be placed in the sharps container for treatment and disposal, even if the vaccine previously contained thimerosal.

(3) Group 2: Pathological waste

(a) Pathological waste must be placed in a rigid RMW container lined with a compliant RMW bag and labelled appropriately. Alternatively, the pathological waste may be double-bagged in compliant RMW bags. Ethical considerations may dictate using alternate means of disposal such as cremation or burial by a licensed mortician.

(b) Pathological waste must be immediately refrigerated upon generation. If the waste is to be maintained on-site longer than 24 hours, it must be placed in frozen storage.

(c) Extracted teeth are not considered pathological waste; however, they are considered RMW. When considered for disposal, extracted teeth are divided into two distinct categories based upon whether the teeth contain amalgam. Alternatives to disposal are also available for extracted teeth. Enclosure (2) provides a flowchart regarding the handling of extracted teeth.

1. Extracted teeth with amalgam are considered dual waste as they contain HW (amalgam) and potentially infectious waste (extracted tooth). Extracted teeth with amalgam must not be disposed as RMW and must be managed per site-specific guidance from the EPM and host installation environmental department, as well as the requirements of reference (d).

2. Extracted teeth without amalgam are to be placed in compliant RMW bags for disposal. If possible, rinse the teeth of visible blood and gross debris to minimize the likelihood of the waste more rapidly becoming putrescent. Teeth should not be placed in sharps containers because of the reduced frequency of disposal and the increased likelihood of putrescence due to the teeth remaining in the treatment area for an extended period of time

3. Most states allow dentists to return extracted teeth to the patient upon request. Extracted teeth given to the patient are not subject to the requirements of reference (a), but should be rinsed of visible blood and gross debris.

4. If the extracted teeth are submitted for pathological examination, coordinate the requirements for subsequent disposal, as applicable, with the EPM and host installation environmental department.

5. Extracted teeth sent to a dental laboratory for shade or size comparisons should be cleaned and surface-disinfected with intermediate-level activity disinfectant registered with the Environmental Protection Agency (EPA).

6. Extracted teeth may be used for educational purposes; however, they must be maintained per guidance provided by the Center for Disease Control.

(d) Placentas are considered pathological waste if managed by the facility. If a patient requests to take her placenta home, the following requirements must be followed.

1. If the provider determines that the placenta must be further examined (e.g., by a pathologist), the patient will not be permitted to take the placenta home.

2. If the patient has a communicable disease, the patient will not be permitted to take the placenta home.

3. If approved for release from the facility, the placenta, membranes, and cord will be placed in a rigid sealable plastic container provided by the provider. The provider will place a patient label on the plastic container.

4. Upon receipt, the patient or her designee is responsible for immediately removing the placenta from the facility in an appropriate container (e.g., cooler).

5. No storage will be made available for the placenta at the facility and the placenta will not be transported with the patient to any other area of the facility.

6. The placenta may not be returned to the hospital.

(4) Group 3: Blood and blood products

(a) Unless prohibited by more stringent regulation, bulk blood may be disposed via sanitary sewer.

(b) Breakable containers of bulk blood and blood products are to be disposed in rigid, puncture-proof, leak-proof RMW container (such as a sharps-like container dedicated solely to the disposal of these specific wastes and not comingled with sharps).

(c) Blood products (e.g., empty or partially empty blood bags; blood filter tubing; and items saturated, dripping or caked with blood) are to be disposed into compliant RMW bags.

(d) Needles should be removed and placed in sharps containers for disposal when possible. Avoid unsafe manipulation of the needles, possibly by cutting the tubing or detaching the tubing from the bag and disposing of the tubing and needle as sharps.

(5) Groups 4 and 7: Used and unused sharps

(a) Discard all sharps directly into sharps containers immediately after use. Do not cut, break, bend by hand, or recap using a two-hand method.

1. If the contents of a syringe (used, partially used, or unused and ineligible for reverse distribution) are classified as non-HW and the syringe cannot be safely separated from the sharp, discard the syringe and sharp intact in the sharps container.

2. If the contents of a syringe (used, partially used, or unused and ineligible for reverse distribution) are classified as HW, contact the EPM for disposal guidance.

(b) Sharps containers must be tamper resistant and either secured to the wall, under continuous supervision by a healthcare professional or maintained in a structure that prevents the

container from being knocked over or otherwise spilled. Ensure that large, standing containers (e.g., 8 or 10-gallon sharps containers) placed on the floor and cannot be secured are positioned such that they are protected from tipping over.

(c) Wall mounted sharps containers will be at a height that promotes safe usage by staff.

(d) Remove and secure sharps containers when above designated fill line. Large sharps containers (typically 8 or 12 gallons) and sharps containers that are used without a designated fill line must be secured and removed when full. Do not overfill sharps containers. Some transport and disposal vendors require the sharps containers be sealed and placed in compliant RMW bags for storage, transport, and disposal. Consult the EPM on this requirement.

(e) Dental procedure carpules that are broken or contain visible blood will be discarded in sharps containers. Unused carpules that still contain the anesthetic should be returned through reverse distribution, if eligible, or disposed of as pharmaceutical waste per reference (c) unless a site-specific requirement regulates the anesthetic under a more stringent standard. Used, unbroken carpules that are empty of anesthetic and do not contain visible blood may be disposed in the general trash.

(6) Group 5: Animal Waste (from animals exposed to infectious agents during research, production of biologicals, or testing of pharmaceuticals)

(a) Animal wastes generated from infectious animals as defined in this instruction will be segregated from other RMW and incinerated.

(b) Waste from treatment of non-infectious animals is not classified as Group 5 Animal Waste, but is classified as RMW and must be managed per the requirements of the applicable RMW group (e.g., sharps or pathological waste).

(c) Carcasses from non-contaminated animals that died from causes including vehicular impact and euthanasia are typically not considered pathological waste. Wastes resulting from such causes must be disposed of per local requirements. Consult the EPM for disposal determinations, as needed.

(7) Group 6: Isolation Wastes (including bedding from patients or animals from BSL 4 agents).

(a) Consult the facility Infection Control (IC) directives or the IC Officer on handling isolation waste, especially waste that contains BSL 4 agents.

(b) If the waste from this group will be disposed through the standard RMW disposal contract, ensure that the transporter and receiving facility are authorized to accept such waste.

(8) Group 8: Other

(a) This group includes fluids that are designated as RMW by the local IC authority. They may include but are not limited to semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid, and amniotic fluid. These designated fluids would be RMW when free-flowing, dripping, or saturated on substrates.

(b) Consult the facility IC directives or the IC Officer on special handling of these RMW fluids. At a minimum, these items are to be placed in compliant RMW containers and properly managed per the requirements of this instruction.

(9) Group 9: Chemotherapy Trace Wastes

(a) Do not mix chemotherapy trace wastes with non-chemotherapy RMW or HW.

(b) Place chemotherapy trace waste in yellow sharps-like containers.

(c) Consult the EPM for additional guidance on the management of these wastes. Unless more stringent requirements apply, chemotherapy trace waste is managed as part of the RMW program for disposal.

(d) Additional information is provided in reference (c).

c. On-site Transport and Storage

(1) Minimize human exposure to RMW during transport to interim and final RMW storage areas. Do not transport RMW in chutes or dumbwaiters. If possible, avoid busy patient areas or use freight elevators. Employees handling RMW must wear appropriate PPE, including gloves, when transporting the RMW containers.

(2) Pathological waste must be refrigerated immediately and frozen if it will remain on-site longer than 24 hours. If frozen, pathological waste may remain in storage on-site up to 30 calendar days. If local regulations allow for a longer storage duration when frozen, a site may elect to store their pathological waste in dedicated equipment and dispose of it per local regulations. This process will be documented in the Medical Waste Management Plan required by 4g(1) of this enclosure. In absence of local regulation, the site must adhere to the requirements of this section for storage time limitations.

(3) Non-pathological, non-sharps RMW collected in work spaces (e.g., treatment areas) must be removed from the work spaces before it becomes putrescent or unsightly, or if it impairs adequate housekeeping or safe passage of personnel or equipment.

(4) Non-pathological RMW, including sharps, placed in interim RMW storage areas (typically located in soiled utility rooms) must be removed from these areas before it becomes putrescent or unsightly, or if it impairs adequate housekeeping or safe passage of personnel or equipment per reference (b). RMW may not be transferred from one interim storage area to another.

(5) Non-pathological RMW may be placed unrefrigerated in final storage (i.e., the location where RMW is held to await off-site transport or disposal) for up to 7 calendar days unless the waste becomes putrescent within a shorter storage duration. If local regulations allow for longer storage duration when refrigerated or frozen, a site may elect to store their RMW in such dedicated equipment and dispose of it per local regulations. This process will be documented in the Medical Waste Management Plan required by paragraph 4g(1) of this enclosure. In absence of local regulation, the site shall adhere to the requirements of this section for storage time limitations.

(6) Each exterior container of RMW transferred for final RMW storage must be labeled with the date that the container is closed and transferred to the storage area. Exterior containers that remain in the final RMW storage area and into which multiple RMW bags or containers are placed for final storage must be labeled with the date the first RMW bag or container was placed inside.

(7) Interim and final RMW storage areas must be constructed to prevent pest access, and to allow for easy cleaning, especially of spills. The entrance(s) to the storage area must be labeled as "BIOHAZARD" and marked with the universal biohazard symbol. If the signage cannot be placed on the door, it must be placed on the wall directly adjacent to the entry. Per reference (b), the signage must be fluorescent orange or orange-red with lettering and symbols in a contrasting color such as black. The signage must be legible from a distance of at least 5 feet.

(8) Entrances to interim RMW storage areas must remain closed. If they are located in areas in which unauthorized personnel may have access (i.e., anyone other than work space employees), they must be locked to prevent unauthorized access.

(9) Entrances to final RMW storage areas must remain closed and locked with a procedure implemented to control access.

(10) If carts are used to transport RMW within the facility, these carts should be dedicated to the transport of RMW and not used for any other purpose. These carts must be constructed of readily cleanable material, such a plastic or stainless steel, and must be in good working order (i.e., no broken or loose wheel casters). If carts are equipped with lids, the lids must be closed when transporting the waste. Carts must be periodically cleaned both inside and outside, using an EPA-registered hospital grade detergent or disinfectant or other facility-approved antimicrobial disinfectant. If a spill occurs, the cart must be cleaned immediately.

Consult the IC Officer to determine frequency and methods for cleaning such equipment. The EPM must be consulted regarding the disposal of waste materials created during the cleaning of the equipment.

(11) In cases where there are multiple facilities generating RMW that is consolidated at a single, final RMW storage location (e.g., a Military Treatment Facility with associated branch clinics), properly trained facility personnel, in coordination with the host or other facility point of contact (POC), may transport this waste to the final storage location within the installation fence line. Personnel must not transport the waste over public roadways unless transportation complies with the applicable requirements of reference (g). Only designated government-owned vehicles that are easily cleaned and disinfected may be used to transport RMW between locations. A spill kit with appropriate PPE and clean-up materials must be maintained in the vehicle.

(12) RMW that is being treated on-site (e.g., by an on-site incinerator) must be placed into rigid, leak-proof, closeable containers that will prevent spillage during transport. This waste may be transported by trained facility personnel, provided there is no transport on public roadways. Only designated government-owned vehicles that are easily cleaned and disinfected may be used to transport RMW between locations. A spill kit with appropriate PPE and clean-up materials must be maintained in the vehicle.

d. Off-site Transport

(1) RMW that will be transported over public roadways to an off-site treatment and disposal facility is typically removed by a RMW disposal contractor. This waste must be packaged per reference (g), including labeling requirements.

(2) The transporter must comply with applicable transportation requirements, including licensing and placarding.

e. Treatment and Disposal. Treatment of RMW is achieved through destruction, such as by incineration or through inactivation by heat, chemicals, or radiation prior to disposal. Appropriate treatment and disposal methods must be achieved regardless of whether the treatment and disposal is occurring on-site or off-site.

(1) Each facility must verify the appropriate treatment and disposal method; however, the following are typical guidelines for each class of RMW.

(a) Group 1: Cultures, stocks, and vaccines. Wastes from this group as described in paragraph 4b(2) of this enclosure, may be either incinerated, thermally inactivated, chemically disinfected (liquids only), or treated by steam sterilization followed by incineration or grinding.

(b) Group 2: Pathological waste. Wastes from this group as described in paragraph 4b(3) of this enclosure, may be either incinerated or treated by steam sterilization followed by incineration or grinding. Ethical considerations may dictate using alternate means of disposal such as cremation or burial by a licensed mortician.

(c) Group 3: Blood and blood products. As described in paragraph 4b(4) of this enclosure, many locations allow liquid wastes in this group to be discharged to the sanitary sewer. Non-liquid wastes from this group or those liquid wastes not allowed to be discharged to the sanitary sewer may be either steam sterilized or incinerated.

(d) Groups 4 and 7: Used and unused sharps. Wastes from these groups as described in paragraph 4b(5) of this enclosure, may either be incinerated or steam sterilized followed by incineration or grinding.

(e) Group 5: Animal Waste from animals exposed to infectious agents during research, production of biologicals, or testing of pharmaceuticals. Wastes from this group, as described in paragraph 4b(6) of this enclosure, must be incinerated or steam sterilized followed by incineration.

(f) Group 6: Isolation Wastes including bedding from patients or animals from BSL 4 agents. The treatment of wastes from this group, as described in paragraph 4b(7) of this enclosure, should be coordinated with the IC Officer, but are typically either steam sterilized or incinerated.

(g) Group 8: Other, including fluids that are designated by the local infection control authority. The treatment of wastes from this group as described in paragraph 4b(8) of this enclosure, should be coordinated with the IC Officer, but are typically either steam sterilized or incinerated.

(h) Group 9: Chemotherapy Trace Wastes. The treatment of wastes from this group, as described in paragraph 4b(9) of this enclosure, may either be incinerated or steam sterilized followed by incineration or grinding.

(2) Incineration of RMW is regulated by stringent EPA requirements for the operation of such units. These requirements include reference (h).

(3) Steam sterilization must be achieved per equipment manufacturer recommendations, including equipment maintenance and testing. In the absence of manufacturer recommendations, steam sterilization requires temperatures of at least 121° C (250° F) for at least 90 minutes at 15 pounds per square inch of gauge pressure, and *Geobacillus stearothermophilus* spore strips must be used weekly to test the sterilization process.

(4) Some locations may require the end products of incineration or grinding processes to be rendered unrecognizable.

f. Training

(1) All employees with occupational exposure to RMW require training per reference (a).

(a) Command and job specific training must occur prior to beginning work, and annually thereafter.

(b) Employees must receive supplemental training whenever new processes, procedures, or equipment are incorporated into the RMW process.

(c) Topics must include, at a minimum: descriptions of what qualifies as RMW; potential health and safety hazards; proper collection, handling, storing, transporting, and disposal methods; internal management processes; appropriate PPE; spill cleanup procedures, including reporting; and POC for the RMW program.

(2) Employees responsible for packaging the RMW for off-site transport or signing the shipping documents and manifests.

(a) In continental United States locations, these employees must complete training that is specific for Class 6-Division 6.2 hazardous materials and compliant with the requirements of reference (g). Initial training is required as soon as possible, but not longer than 90 days, upon assuming duties. This training must be refreshed every 24 months thereafter. While awaiting initial training, personnel may perform duties under the supervision of another staff member with appropriate and current training.

(b) In OCONUS locations, personnel designated to package and certify RMW shipments must be authorized military personnel per status of forces agreements.

1. Required training in OCONUS locations will be based on host nation FGS or OEBGD, with consideration for host nation laws. The host installation may be contacted for additional information.

2. In the absence of a host installation or in the event a host installation is unable to provide applicable information, the appropriate echelon 3 activity EPM should be contacted for assistance.

g. Medical Waste Management Plan Documentation

(1) Each facility must develop a site-specific Medical Waste Management Plan. This document outlines the cradle-to-grave management of RMW specific to the generating processes at the facility and must include a contingency plan for the management of RMW should the primary means become unavailable (e.g., on-site treatment fails) or should environmental conditions (e.g., inclement weather, natural disaster, etc.) temporarily prevent the removal of RMW from the facility. This plan must be reviewed annually. Modifications to the plan must be

made within 90 days of the annual review or following a significant process change. Minor changes that do not have a significant impact to the requirements of the plan or the medical waste management process (e.g., a change in POC or a change in telephone number) may be made by the EPM separate from the annual review, provided these changes are documented in a record of revision and communicated to the facility employees generating or handling RMW.

(2) All training records must be retained for at least 3 years from the date of training.

(3) Each shipment will be documented on RMW shipping documents and manifests per reference (g). These documents are typically prepared by the disposal contractor and signed by an authorized agent of the generating facility. A copy of the paperwork must be retained by the generating facility. Facilities must maintain RMW shipping documents and manifests for at least 2 years after the waste was accepted by the transporter per reference (g).

(4) If the RMW is transported off-site, the receiving facility must provide written documentation certifying proper treatment and disposal to the generating facility. In the event that this documentation is not received within 60 days, the EPM must notify the contracting officer representative for the RMW disposal contract to determine appropriate means of contacting the transporter and receiving facility to trace the disposal. These records must be maintained with the original shipping documents and manifests by the facility for at least 2 years after the waste was accepted by the transporter.

h. Cleanup of Spills

(1) Clean up RMW spills immediately per references (a) and (b).

(2) Post notices to staff members to prevent personnel from entering the area and potentially spreading infectious material while responders gather materials and any needed assistance for the cleanup.

(3) Response personnel must wear appropriate PPE to minimize exposure to RMW during clean up per guidance by OSHA and organizational safety officers. This may include gloves, coveralls, masks, and goggles.

(4) Place leaking or broken containers in a new, double-lined compliant RMW container.

i. Safety and Occupational Health. Consult your facility's Safety Department, Occupational Health Department, and references (a) and (b) for any additional safety and occupational health requirements for personnel with potential occupational exposure to RMW.

EXTRACTED TOOTH DECISION TREE

After extraction, clean off visible blood and gross debris

