UC DAVIS
SAFETY SERVICES
Environmental Health and Safety

MEDICAL WASTE MANAGEMENT PLAN

This document provides a step-by-step method to help medical waste storage/accumulation site managers prepare a medical waste management plan. Completing this template constitutes creating a plan as required by the Medical Waste Management Act. Your plan will be included in the UC Davis Medical Waste Generator/Accumulation Site/Treatment Facility Permit. **One** copy must be available at each generation/accumulation facility, **one** copy must be submitted to Environmental Health & Safety (EH&S) and **one** copy must be submitted to the administrative section of the department responsible for the storage/accumulation site.

General information

Department name: Chemistry

Chair:	Susan Kauzlarich	Phone:	530.752.0504	Building:	Chemistry	Room:	108
Department contact:	Debbie Decker	Phone:	530.754.7964	Building:	Chemistry	Room:	3467
Responsible Researcher: (if appropriate)		Phone:		Building:		Room:	

Type of medical waste generated and/or treated (Please check all that apply.)

☒ Red bag medical waste ☐ Sharps ☐ Animal carcasses ☐ Manure/bedding
☐ Other (please specify):

Medical waste transportation vendor: Stericycle
Medical waste inactivation vendor: Stericycle

Autoclave locations (Please contact the Biosafety Office (biosafety@ucdavis.edu) if you plan to operate an autoclave for treating medical waste.)

Building: Chemistry Annex Room: 2435
Building: Room:

Contact person: Scott Berg Phone: 530.752.1957 Building: Chemistry Room: 134

Medical waste picked up and treated by an approved vendor
Medical waste must be collected, transported and treated by an approved vendor. A copy of this documented process will be given to the department operating the storage/accumulation site.

The Medical Waste accumulation site is:
Building: Chemistry Room: 243
Building: Room:
Building: Room:

Contact person: Debbie Decker Phone: 530.754.7964 Building: Chemistry Room: 3467
Backup contact: Scott Berg Phone: 530.752.1957 Building: Chemistry 134

The hauling/treatment records can be accessed in:
Building: Chemistry Room: 243
Building: Room:
Building: Room:

Contact person: Debbie Decker Phone: 530.754.7964 Building: Chemistry Room: 3467
Backup contact: Laura Troutner Phone: 530.752.0501 Building: Chemistry 108

Medical waste generators

Please list each person who generates medical waste in your department, the waste type and the location where it is generated.

Person:	Peter Beal	Waste:	Medical	Building:	Chemistry Annex	Room:	5473
Person:	Sheila David	Waste:	Medical	Building:	Chemistry	Room:	369
Person:	Ting Guo	Waste:	Medical	Building:	Chemistry Annex	Room:	0455
Person:	Carlito Lebrilla	Waste:	Medical	Building:	Chemistry Annex	Room:	1430, 144
Person:	Xi Chen	Waste:	Medical	Building:	Chemistry	Room:	275B
Person:	David Olson	Waste:	Medical	Building:	Chemistry Annex	Room:	2430, 2450, 2462
Person:		Waste:		Building:		Room:	
Person:		Waste:		Building:		Room:	
Person:		Waste:		Building:		Room:	
Person:		Waste:		Building:		Room:	
Person:		Waste:		Building:		Room:	

Training requirement for persons who generate medical waste: All individuals who generate, handle, or transport medical waste to an accumulation site must be trained in safe practices and in legally-mandated requirements for managing waste in accumulation sites to ensure safe highway transport. Training in safe practices is offered by Environmental Health and Safety and by the School of Medicine (for SOM staff), and training in DOT requirements is offered by the medical waste transportation vendor or by your medical waste accumulation site manager/contact person.

I. DEFINITIONS

A. **Biohazardous waste** is waste that may contain pathogens capable of replication and of causing disease in humans, animals or plants.

B. **Medical waste** is biohazardous waste and/or sharps waste that may contain agents infectious to humans. **Medical waste includes biohazardous waste capable of causing disease *only* in humans.**

Medical waste **does not** include the following:

1. Waste generated in food processing or biotechnology that does not contain an agent infectious to humans.

2. Sharps waste not contaminated with medical waste. Note that nonmedical waste sharps must be disposed of in nonmedical waste sharps containers.

3. Waste generated in biotechnology that does not contain human or animal blood or blood products suspected of being contaminated with agents infectious to humans.

4. Urine, feces, saliva, sputum, nasal secretions, sweat, tears and vomitus **unless** they contain fluid blood from humans or animals known or suspected (treated with agents or show symptoms) to have agents infectious humans.

5. Nonbiohazardous waste such as paper towels, surgical gowns or bandages that contain **nonfluid** blood.

6. Hazardous chemical waste, radioactive waste and household waste.

7. Waste generated from normal and legal veterinary, agricultural, and livestock - management practices on a farm or ranch.

C. **Medical sharps waste** is discarded material that has acute rigid corners, edges or protuberances capable of cutting or piercing as described below:

1. All discarded hypodermic needles attached to syringes or tubing as well as blades and syringes contaminated with **medical** waste.

2. Discarded medical appliances, sharp devices, broken glass or plastic laboratory equipment, Pasteur pipettes, vacutainer tubes, etc. that are contaminated with **medical** waste.

D. **Agents infectious to humans** include but are not limited to viruses, bacteria, Chlamydia, rickettsia, protozoa, and fungi that are known to cause disease in humans.

E. **Biohazard bags** are disposable **RED** bags of sufficient strength to preclude ripping, tearing or bursting under normal use and handling when full. The bag must meet Standard D 1709-85 prescribed by American Society for Testing and Materials (ASTM) and must be certified by the bag manufacturer. Bags must be conspicuously labeled with the words "BIOHAZARDOUS WASTE" or with the international biohazard symbol and the word "BIOHAZARD."

Note: Orange biohazardous waste bags are prohibited in California.

F. **Sharps containers** are rigid, puncture-resistant containers that, when sealed, are leak resistant and cannot be reopened without great difficulty. Medical waste sharps containers must be labeled with the international biohazard symbol and the word "BIOHAZARD."

G. **Mixed hazardous or radioactive wastes** contain a mixture of two or more of the following: medical waste, radiological waste and hazardous chemical waste.

II. SEGREGRATION, CONTAINMENT, LABELING AND COLLECTION OF MEDICAL WASTE

A. Medical waste generated on the UC Davis campus or approved off-campus sites

1. Segregation and containment of medical waste

a. Medical waste will be segregated at the point of generation in each laboratory or other work area. Waste will be placed in **RED** biohazard bags labeled with the words "BIOHAZARDOUS WASTE" or with the international biohazard symbol and the word "BIOHAZARD." Biohazard bags will be sealed at the point of origin to prevent leakage or expulsion of contents when they are ready for transport, treatment and disposal.

b. Biohazard bags will be **labeled** with the **building and room** number, or affixed with a pre-printed sticker, indicating where the waste is generated. Bags will be placed in labeled, **leakproof secondary containers** with tight-fitting covers. Medical waste bags will not be removed from the secondary container except for transfer to another secondary container or to the secondary storage container at the storage/accumulation site. Bags should not weigh more than 40 pounds.

c. Secondary containers must be labeled with the words "BIOHAZARDOUS WASTE" or with the international biohazard symbol and the word "BIOHAZARD" on the lid and on the sides, so as to be visible from any lateral direction.

d. Bagged medical waste will be transported in secondary containers to the designated storage/accumulation site and removed only when transferred into other secondary containers.

Note: Any medical waste generated off-campus from animal trapping, off-site animal housing or other procedures that generate medical waste from UC Davis sources must be placed in bags that are placed in secondary containers, before being transported to an approved campus treatment site or other approved medical waste treatment facility. A written plan must be developed by the generator and approved by EH&S prior to waste generation.

☐ If the medical waste treated is from an **off campus** source, place an "X" in box to the left and attach to this plan written procedures for handling the waste.

2. Disposal of sharps

Medical waste sharps will be placed in approved medical waste sharps containers prior to disposal. Medical waste sharps containers will be labeled with the generator's building and room number. Approved medical waste sharps containers must be labeled with the words "BIOHAZARDOUS WASTE" or with the international biohazard symbol and the word "BIOHAZARD." When full (contents reach fill line), transport the sharps containers to the designated accumulation site and place in labeled medical waste containers.

Note: Nonmedical sharps will be placed in sharps containers or other rigid, puncture-resistant, leak-resistant containers with a tight fitting lid that are **not** labeled as medical waste. These containers must not have biohazard symbols or any wording indicating medical waste, biohazard waste or biohazard materials.

3. Disposal of fluids

Human and non-human primate blood and body fluids, and the blood and body fluids of animals known or suspected to harbor human infectious agents, **must** be treated by adding chlorine bleach to a final concentration of at least 10%, and incubating for at least 30 minutes. The treated material can be disposed in the sanitary sewer. If liquid medical waste cannot be disposed of to the campus sewage system, contact EH&S for alternative disposal methods.

4. Disposal of animal waste and bedding

a. Animal waste and bedding known or suspected (treated with agent or shows symptoms) of containing agents infectious to humans is considered medical waste and must be handled and treated accordingly.

b. Animal carcasses containing agents infectious to humans will be handled, treated and disposed of as medical waste. Contact EH&S for information on developing a handling, treatment and disposal plan.

5. Mixed hazardous or radioactive waste handling

a. **Medical waste containing hazardous chemicals** requires special handling, transporting, treating and/or disposal methods. This waste is handled on a case-by-case basis.

b. **Medical waste containing radioactive materials** requires special handling, transportation and disposal and is handled as required by our campus-broad scope license for use of radioactive materials.

c. **Contact EH&S at 530-752-1493 prior to generating** mixed medical and/or hazardous or radioactive waste to develop an approved written disposal protocol.

III. MEDICAL WASTE STORAGE / ACCUMULATION SITE

A. Containment

Medical waste will be placed either in red biohazard bags within an approved secondary container or into a sharps container, as appropriate, at the generation point. Medical waste may be stored at room temperature up to seven days after generation before treatment.

B. Site security

Secure EH&S-approved storage enclosures and accumulation areas by locking access doors or receptacle lids to prevent unauthorized entry. Medical waste in secondary containers must **not** be stored in unsecured, common-use rooms including autoclave rooms.

C. Post a sign on the exterior of entry doors, or adjacent to the entry doors. The sign must include:

1. The warning, “CAUTION – BIOHAZARDOUS WASTE STORAGE AREA – UNAUTHORIZED PERSONS KEEP OUT” and “CUIDADO – ZONA DE RESIDUOS – BIOLOGICOS PELIGROSOS – PROHIBIDA LA ENTRADA A PERSONAS NO AUTORIZADAS.”

2. The universal biohazard symbol.

IV. TREATMENT AND TRACKING RECORDS

A. A medical waste generator required to register pursuant to this chapter shall maintain individual treatment, and tracking records, if applicable, for three years, or for the period specified in the regulations, and shall report or submit to the enforcement agency, upon request, both of the following:

1. Treatment operating records.

2. An emergency action plan complying with regulations adopted by the California Department of Public Health.

V. DISINFECTING MEDICAL WASTE SPILLS AND DECONTAMINATING REUSABLE, RIGID CONTAINERS

A. Secondary-container disinfection

Secondary containers for biohazard bags will be disinfected once every 30 days or whenever leakage occurs from the bags.

1. One of the following chemical sanitizers must be used (indicate solution(s) used with an 'X' below):

   ☒ Hypochlorite solution (500 ppm available chlorine)
   ☐ Iodophore solution (100 ppm available iodine)
   ☐ Quaternary ammonium solution (400 ppm active agent)
   ☒ Other disinfectant that is effective against the specific organism(s) used. Indicate disinfectant and concentration to be used: 70% isopropanol

2. The container will be rinsed, sprayed or immersed in the sanitizer. The sanitizer will remain in contact with container surfaces for a minimum of three minutes before washing.

B. Procedures for using disinfectants for spills (UC Davis EH&S SafetyNets 51, 68, 85, 127)

1. Use appropriate commercial disinfectants, and follow label directions.

2. The minimum required contact time for decontamination must be based on a risk assessment of the material to be decontaminated and the disinfectant properties. The risk assessment must be documented in the laboratory safety manual.

3. Spill cleanup materials must be disposed as medical waste.

   Note: Use disinfectant that is compatible with the treatment process.

VI. EMERGENCY PLANNING

A. Natural disasters

1. In the event of a natural disaster that may interfere with the disposal of medical waste, all nonessential, medical-waste-generating activities will be suspended immediately.

2. Spills and releases of biohazardous agents will be handled by the campus Fire Department Emergency Response Team in conjunction with EH&S and the campus police department (call 911).

VII. CERTIFICATION

I hereby certify that to the best of my knowledge and belief the statements made herein are correct and true:

Department chair: _____ Date: _____

Responsible Researcher: (if appropriate) _____ Date: _____