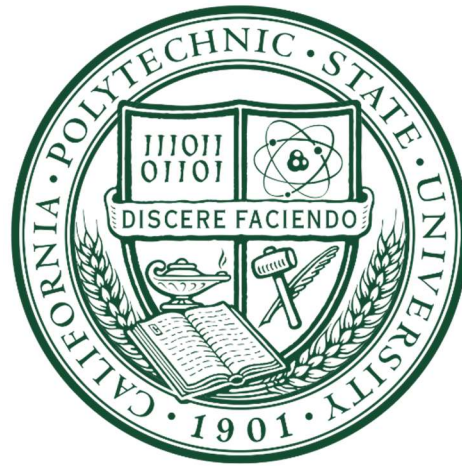


MEDICAL WASTE MANAGEMENT PLAN



California Polytechnic State University
San Luis Obispo, CA 93407
September 2022

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Purpose

California Polytechnic State University San Luis Obispo (Cal Poly) has developed this plan to maintain compliance with State and local laws and regulations. This plan will assist in the management of regulated medical waste and contingency measures for emergency situations.

Facility Details

Facility Name	California Polytechnic State University San Luis Obispo
Address	1 Grand Ave., San Luis Obispo CA, 93407
Phone Number	(805) 756-6555
Type of Facility	University – Education and Research
Contact Person	Erin Winett - (805) 756-6678
Alternate Contact Person	Christina Juarez - (805) 756-6674

Types of Medical Waste Generated

Cal Poly generates sharps waste; laboratory wastes; waste containing microbiologic specimens; animal parts, tissues, and fluids; waste containing recognizable fluid blood; and other types of waste defined as medical waste in section 25020.5 of the California Health and Safety Code. The University’s education and research activities generate between 200 and 500 pounds of medical waste per month for offsite transportation and disposal. Non-routine wastes generated from COVID-19 pandemic student testing have resulted in periodic increases in monthly waste volumes.

The Biological Sciences Department within the University generates approximately 450 pounds of medical waste per month for onsite treatment, including a large amount of glassware that will be re-used after treatment.

Definitions

“Biohazard Bag” means a disposable film bag used to contain medical waste. These bags shall be marked and certified by the manufacturer as having passed the tests prescribed for tear resistance in the American Society for Testing Materials (ASTM) D1922, “Standard Test Method for Propagation Tear Resistance of Plastic Film and Thin Sheeting by Pendulum Method” and for impact resistance in ASTM D1709, “Standard Test Methods for Impact Resistance of Plastic Film by the Free-Falling Dart Method,” as those documents were published on January 1, 2014. The film bag shall meet an impact resistance of 165 grams and a tearing resistance of 480 grams in both parallel and perpendicular planes with respect to the length of the bag.

(b) The biohazard bag that is used to collect medical waste at Cal Poly shall be manufacturer certified to meet the ASTM D1709 dart drop test, provided that when the bag is prepared for transport offsite, it is placed into a USDOT-approved container lined with a biohazard bag that is ASTM D1709 and ASTM D1922 certified.

(c) The color of the bag shall be red, except when yellow bags are used to further segregate trace chemotherapy waste and white bags are used to further segregate pathology waste. The biohazard bag shall be marked with the international biohazard symbol and may be labeled by reference as authorized by the USDOT.

“Biohazardous waste” means any of the following:

Laboratory waste, including, but not limited to, all of the following:

Human or animal specimen cultures from medical and pathological laboratories.

Cultures and stocks of infectious agents from research and industrial laboratories.

Wastes from the production of bacteria, viruses, or the use of spores, discarded live and attenuated vaccines used in human health care or research, discarded animal vaccines, including only Brucellosis, Contagious Ecthyma, and other animal vaccines, as identified by the department, and culture dishes and devices used to transfer, inoculate, and mix cultures.

Waste containing any microbiologic specimens.

Human surgery specimens or tissues removed at surgery or autopsy, which are suspected by the attending physician and surgeon or dentist of being contaminated with infectious agents known to be contagious to humans.

Animal parts, tissues, fluids, or carcasses suspected by the attending veterinarian of being contaminated with infectious agents known to be contagious to humans.

Waste, which at the point of transport from the generators site, at the point of disposal, or thereafter, contains recognizable fluid blood, fluid blood products, containers, or equipment containing blood that is fluid or blood from animals known to be infected with diseases which are highly communicable to humans.

Waste containing discarded materials contaminated with excretion, exudate, or secretions from humans who are required to be isolated by the infection control staff, the attending physician and surgeon, the attending veterinarian, or the local health officer, to protect others from highly communicable diseases or isolated animals known to be infected with diseases which are highly communicable to humans.

Waste which is hazardous only because it is comprised of human surgery specimens or tissues which have been fixed in formaldehyde or other fixatives, or only because the waste is contaminated through contact with, or having previously contained, trace amounts of chemotherapeutic agents, including, but not limited to, gloves, disposable gowns, towels, and intravenous solution bags and attached tubing which are empty. A biohazardous waste which meets the conditions of this subdivision is not subject to Chapter 6.S (commencing

with Section 25100). These wastes shall be managed as medical waste in accordance with the applicable provisions of this chapter and shall be disposed of in accordance with subdivision (a) of Section 25090.

For purposes of this subdivision, “chemotherapeutic agent” means an agent that kills or prevents the reproduction of malignant cells.

For purposes of this subdivision, a container, or inner liner removed from a container, which previously contained a chemotherapeutic agent, is empty if the container or inner liner removed from the container has been emptied by the generator as much as possible, using methods commonly employed to remove waste or material from containers or liners, so that the following conditions are met:

- A. If the material which the container or inner liner held is pourable, no material can be poured or drained from the container or inner liner when held in any orientation, including, but not limited to, when tilted or inverted.
- B. If the material which the container or inner liner held is not pourable, no material or waste remains in the container or inner liner that can feasibly be removed by scraping.

“Common storage facility” means any designated accumulation area which is onsite and is used by small quantity generators otherwise operating independently for the storage of medical waste for collection by a registered hazardous waste hauler.

“Container” means the rigid container in which the medical waste is placed prior to transporting for purposes of storage or treatment.

“Highly communicable disease” means diseases, such as those caused by organisms classified by the federal Centers for Disease Control and Prevention as risk group 3 organisms or higher.

“Infectious agent” means a type of microorganism, bacteria, mold, parasite, or virus which normally causes, or significantly contributes to the cause of, increased morbidity or mortality of human beings.

“Medical waste” means waste which meets both of the following requirements:

(a) “Medical waste” means any biohazardous, pathology, pharmaceutical, or trace chemotherapy waste not regulated by the federal Resource Conservation and Recovery Act of 1976 (Public Law 94-580), as amended; sharps and trace chemotherapy wastes generated in a health care setting in the diagnosis, treatment, immunization, or care of humans or animals; waste generated in autopsy or necropsy; waste generated during preparation of a body for final disposition such as cremation or interment; waste generated in research pertaining to the production or testing of microbiologicals; waste generated in research using human or animal pathogens; sharps and laboratory waste that poses a potential risk of infection to humans generated in the inoculation of animals in commercial farming operations; waste generated from the consolidation of home-generated sharps; and waste generated in the cleanup of trauma scenes. Biohazardous, pathology, pharmaceutical,

sharps, and trace chemotherapy wastes that meet the conditions of this section are not subject to any of the hazardous waste requirements found in Chapter 6.5 (commencing with Section 25100) of Division 20.

(b) For purposes of this part the following definitions apply:

(1) "Biohazardous waste" includes all of the following:

(A)(i) Regulated medical waste, clinical waste, or biomedical waste that is a waste or reusable material derived from the medical treatment of a human or from an animal that is suspected by the attending veterinarian of being infected with a pathogen that is also infectious to humans, which includes diagnosis and immunization; or from biomedical research, which includes the production and testing of biological products.

(ii) Regulated medical waste or clinical waste or biomedical waste suspected of containing a highly communicable disease.

(B) Laboratory waste such as human specimen cultures or animal specimen cultures that are infected with pathogens that are also infectious to humans; cultures and stocks of infectious agents from research; wastes from the production of bacteria, viruses, spores, discarded live and attenuated vaccines used in human health care or research, discarded animal vaccines, including Brucellosis and Contagious Ecthyma, as defined by the department; culture dishes, devices used to transfer, inoculate, and mix cultures; and wastes identified by Section 173.134 of Title 49 of the Code of Federal Regulations as Category B "once wasted" for laboratory wastes.

(C) Waste that, at the point of transport from the generator's site or at the point of disposal contains recognizable fluid human blood, fluid human blood products, containers, or equipment containing human blood that is fluid, or blood from animals suspected by the attending veterinarian of being contaminated with infectious agents known to be contagious to humans.

(D) Waste containing discarded materials contaminated with excretion, exudate, or secretions from humans or animals that are required to be isolated by the infection control staff, the attending physician and surgeon, the attending veterinarian, or the local health officer, to protect others from highly communicable diseases or diseases of animals that are communicable to humans.

(2) "Pathology waste" includes both of the following:

(A) Human body parts, with the exception of teeth, removed at surgery and surgery specimens or tissues removed at surgery or autopsy that are suspected by the health care professional of being contaminated with infectious agents known to be contagious to humans or having been fixed in formaldehyde or another fixative.

(B) Animal parts, tissues, fluids, or carcasses suspected by the attending veterinarian of being contaminated with infectious agents known to be contagious to humans.

(3) “Pharmaceutical waste” means a pharmaceutical, as defined in Section 117747, including trace chemotherapy waste, that is a waste, as defined in Section 25124. For purposes of this part, “pharmaceutical waste” does not include a pharmaceutical that meets either of the following criteria:

(A) The pharmaceutical is being sent out of the state to a reverse distributor, as defined in Section 4040.5 of the Business and Professions Code that is licensed as a wholesaler of dangerous drugs by the California State Board of Pharmacy pursuant to Section 4161 of the Business and Professions Code.

(B) The pharmaceutical is being sent by a reverse distributor, as defined in Section 4040.5 of the Business and Professions Code, offsite for treatment and disposal in accordance with applicable laws, or to a reverse distributor that is licensed as a wholesaler of dangerous drugs by the California State Board of Pharmacy pursuant to Section 4160 of the Business and Professions Code and as a permitted transfer station if the reverse distributor is located within the state.

(4) “Sharps waste” means a device that has acute rigid corners, edges, or protuberances capable of cutting or piercing, including, but not limited to, hypodermic needles, hypodermic needles with syringes, blades, needles with attached tubing, acupuncture needles, root canal files, broken glass items used in health care such as Pasteur pipettes and blood vials contaminated with biohazardous waste, and any item capable of cutting or piercing from trauma scene waste.

(5) “Trace chemotherapeutic waste” means waste that is contaminated through contact with, or having previously contained, chemotherapeutic agents, including, but not limited to, gloves, disposable gowns, towels, and intravenous solution bags and attached tubing that are empty. A biohazardous waste that meets the conditions of this paragraph is not subject to the hazardous waste requirements of Chapter 6.5 (commencing with Section 25100) of Division 20.

(6) “Trauma scene waste” means waste that is a regulated waste, as defined in Section 5193 of Title 8 of the California Code of Regulations, and that has been removed, is to be removed, or is in the process of being removed, from a trauma scene by a trauma scene waste management practitioner.

“Medical waste generator” means any person, whose act or process produces medical waste and includes, but is not limited to, a provider of health care as defined in subdivision (a) of Section 56.05 of the Civil Code.

“Medical waste treatment facility” means all adjacent land and structures, and other appurtenances or improvements on the land, used for treating medical waste or for associated handling and storage of medical waste. Medical waste treatment facilities are those facilities treating waste pursuant to subdivision (a) or (c) of Section 25090. A medical waste treatment method approved pursuant to subdivision (d) of Section 25090 may be designated as a medical waste treatment facility by the department.

“Mixed waste” means mixtures of medical and nonmedical waste. Mixed waste is medical waste, except for all of the following:

- a. Medical waste which is hazardous waste subject to regulation as specified in the statutes and regulations applicable to hazardous waste.
- b. Medical waste which is radioactive waste subject to regulation as specified in the statutes and regulations applicable to radioactive waste.
- c. Medical waste, hazardous waste, and radioactive waste which is radioactive mixed waste subject to regulation as specified in the statutes and regulations applicable to hazardous waste and radioactive waste.

“Offsite” means any location which is not onsite.

“Onsite” means a medical waste treatment facility, or common storage facility on the same or adjacent property as the generator of the medical waste being treated.

“Adjacent” for purposes of subdivision (a), means real property within 400 yards from the property boundary of the existing medical waste treatment facility.

“Person” means an individual, trust, firm, joint stock company, business concern, corporation, including, but not limited to, a government corporation, partnership, and association. “Person” also includes any city, county, district, commission, the State or any department, agency, or political subdivision thereof, the Regents of the University of California, any interstate body, and the federal government or any department or agency thereof to the extent permitted by law.

“Sharps container” means a rigid puncture-resistant container which, when sealed, is leak resistant and cannot be reopened without great difficulty.

“Sharps waste” means any device having acute rigid corners, edges, or protuberances capable of cutting or piercing, including, but not limited to, all of the following:

- a. Hypodermic needles, hypodermic needles with syringes, blades, needles with attached tubing, syringes contaminated with biohazardous waste, acupuncture needles, and root canal files.
- b. Broken glass items, such as Pasteur pipettes and blood vials contaminated with biohazardous waste.

“Storage” means the holding of medical wastes at a designated accumulation area, as specified in Article 8, Division 20, H&SC (commencing with Section 25080).

“Tracking document” means the medical waste tracking document specified in Section 25063, H&SC.

“Transfer station” means any offsite location where medical waste is loaded, unloaded, or stored by a registered hazardous waste hauler during the normal course of transportation of the medical waste. “Transfer station” does not include common storage facilities, large quantity generators used for the purpose of consolidation, or onsite treatment facilities.

“Treatment” means any method, technique, or process designed to change the biological character or composition of any medical waste so as to eliminate its potential for causing disease, as specified in Article 9, Division 20, H&SC (commencing with Section 25090).

Waste Separation

Medical wastes and non-medical wastes are separated by Cal Poly University personnel per the definition of medical waste in Article 2, Chapter 6.1, Division 20, of the California Health and Safety Code.

Pharmaceutical Waste Separation/Categorization

Pharmaceutical waste will be segregated into the following three categories for proper disposal:

- Controlled pharmaceutical waste “Orange List Waste” will be maintained in their respective “lockups” until the date of disposal. An attempt will be first made to properly return the controlled wastes to the manufacturer/vendor. If this is not possible, a “Controlled Pharmaceutical Waste Hauler” will be contracted and engaged for this service. Disposal will take place according to CFR Section 1307.21.
- Pharmaceutical waste that presents a hazardous waste component (Federally regulated as a listed or characteristic hazardous waste under RCRA) will be collected in a **BLACK** labeled container and disposed of with Cal Poly’s contracted hazardous waste hauler, leaving campus on a Hazardous Waste Manifest. These include unused warfarin, e-liquid forms of nicotine and eserine). Contact EH&S for disposal.
- The remaining Not RCRA Wastes and Not Controlled Pharmaceutical Wastes will be placed in a **BLUE** labeled container (also labeled “incineration only”) for disposal with Cal Poly’s contracted medical waste hauler.
- Expired pharmaceutical waste should **NOT** be placed in sharps containers or red biohazard bag waste.

Medical Waste Designation

Medical waste, except for sharps capable of puncturing or cutting, shall be contained for storage and disposal in biohazard bags.

Sharps waste shall be contained in sharps containers.

Microbiological specimens generated by the Biological Sciences Department will be taken by Biological Sciences staff to the autoclave facility in Fisher Hall, room 466, for treatment using procedures described in the attached autoclave operations plan.

Recognizable human anatomical remains, with the exception of teeth not deemed infectious by the attending physician, surgeon, or dentist, shall be disposed of by incineration or

interment unless otherwise hazardous (see previous definitions of medical waste in this Plan). Remains in this category shall be segregated from other medical waste.

Medical Waste Storage

Medical waste shall be stored in rigid, leak-proof containers with tight-fitting lids which have been labeled with a label which is marked with the international biohazard symbol and the word "Biohazard." Medical waste shall be transported from the point of generation to the storage area in rigid, covered containers. Storage facilities are located at the following locations:

- Building 24 (Food Science and Nutrition) North of loading dock
- Building 27 (Cal Poly Health Services) loading dock.
- Building 41 (Engineering III) Courtyard
- Building 53 (Science North) loading dock.
- Building 57 (Cal Poly Veterinary Clinic) behind the clinic.
- Building 70 (Facilities Services) next to the custodial stores warehouse.

Access to medical waste storage facilities is controlled by key. Key's are provided to personnel with need to access, after training has been completed. If you require an access key, contact the EH&S Department at hazwaste@calpoly.edu. Principal Investigators, faculty, research advisors who have students or other personnel working with them must ensure anyone who uses their key has been trained on the proper procedures for handling, containerizing and disposing of medical waste.

Medical Waste Pick-Up and Transportation

Medical waste shall be picked up and transported for disposal, at least once every seven (7) days, by:

Stericycle, Inc.
28161 N. Keith Dr.
Lake Forest, IL 60045
Transporter Registration #3400
Phone: (559) 275-0992

Medical Waste Destruction

Medical waste will be transported by the above transporter to the following facility for destruction:

Stericycle, Inc.
4135 W. Swift Avenue,

Fresno, California.
MWTF Permit #10-8-P
Phone: (559) 275-0992

Alternate Medical Waste Service Provider

In the event that the transporter listed above cannot collect the medical waste at the required interval, the Environmental Health and Safety Department shall contact another licensed medical waste transport and disposal company to provide service until the transporter listed above can resume service. In the event that services cannot be obtained for a period of time, the Office of Environmental Safety shall prepare long-term storage for the campus' medical waste. This will include transfer of the medical waste to rigid, leakproof, tightly sealed containers, proper labeling, and transfer and storage of these containers in the Environmental Safety Hazardous Waste Storage Facility.

The alternative transport and disposal company referenced above will be:

Medical Waste Environmental Engineers, Inc.
221 Town Center West #271
702 "B" S. Depot Street
Santa Maria, CA 93458
Phone: (805) 925-6633

On-Site Medical Waste Treatment

Microbiological specimens generated by the Biological Sciences Department are treated on-site in a Steris Amsco "Lab 250" autoclave located in Fisher Hall (building 33), room 466.

Ingress and egress to the treatment facility are via doors leading into the building main hallway and into adjacent rooms. All doors have locks with controlled key access (i.e. the Biological Sciences Department must approve issuance of keys to these locks and they must be issued through the campus key control center).

The average monthly quantity of medical waste to be treated on site is less than 400 pounds.

The rated capacity per operational cycle of the autoclave is approximately 6 cubic feet of material. The autoclave is operated a maximum of 8 hours per day and an average of 2 hours per day. The autoclave is operated a maximum of 5 days per week and an average of 2 days per week.

The type of waste being treated is live bacterial cultures from a university microbiology educational laboratories and research.

On-Site Treatment Procedures

Decontamination of Biohazardous Material Containing Live Bacteria

Each student laboratory, and appropriate research laboratory, will have two bacterial waste containers (coffins) and a biohazard sharps container. All three will be appropriately labeled with signs above the containers as to what materials can and cannot be discarded in each container.

One coffin will be for the discard of test tubes, flasks and other glassware that can be autoclaved, rewashed, and used again. This glassware will contain empty tubes and flasks that originally contained sterile solid media which was melted and poured into petri dishes and/or other glassware containing discarded broth or solid culture media with live bacteria. This coffin will be plainly marked as biohazardous material which will eventually be autoclaved, rendering the material inside sterile and killed. After proper sterilization this glassware will be washed in a commercial dishwasher, dried, and reused again.

The second coffin will be for the disposal of single use plastic lab ware. Into this coffin, all plastic ware will be placed, such as petri dishes, which may or may not contain live bacteria. This coffin will be autoclaved appropriately and the contents discarded in a waste container in the bacteriological prep room (33-466). This material will eventually find its way to the municipal sanitary land fill.

The biohazard red sharps container will contain any and all material that may pose a threat to a person by cutting or puncturing an individual's skin. This container will contain microscope slides, broken glass, broken pipettes, etc. It will contain broken glassware which may or may not contain live bacteria. This container, when full, will be disposed of in the Bio-hazardous waste container on the loading dock of Science North.

In the event that the Biological Sciences autoclave becomes inoperative, medical waste generated by the Biological Sciences Department will be handled, stored, transported and destroyed in the same manner as all other medical waste on campus, as described in the above sections.

SOP for Designated Medical Waste Autoclave

1. The main power on off switch is found behind the stainless steel panel on the top of the autoclave. Switch on.
2. Touch the screen with finger to start. User name is STERIS in all caps. Pass word is 1000. The next screen will ask to flush the generator.
 - a. For **YES** press the “start timer” and open the yellow handled valve at the base of the autoclave (behind the steel panel near your left foot). Wait the five minutes (there is no beep), close the valve and press “continue” followed by “operator mode”. This procedure flushes sediment from the steam generator, and increases the longevity of the machine, but is not essential every time.
 - b. For **NO**, press the red “X” in the bottom right corner followed by the “continue” then “operator mode”.
3. Check that coffins have autoclave tape place diagonally across a corner, and are not filled above top edge. Place up to two coffins in autoclave and close door. Press “kill” which is found on the left of the screen. This is the standard 30 minute at 121 Celsius run.
4. The autoclave will beep when run is done. Carefully open the door as steam escapes up from the opening. Remove coffins and place on sterilized cart near the wall while wearing heavy gloves. Allow plastics coffin to cool before disposal.
5. To turn off the autoclave, first open door, then press red “X” in bottom right corner. Press “Log Out” on the next screen. Done.

Procedure for Autoclaving the Above Containers:

1. When a container in the laboratory is full, place it on a cart and roll it into the prep room for sterilization. Do not fill above the rim, to prevent spills and allow the coffin to fit in the autoclave. Use the designated autoclave in the 33-466 for all sterilization of bacteriological waste material. This is the autoclave in the front of the room near the door to 33-467. Usually the autoclave will not be run unless two coffins are ready for sterilization. Place autoclave tape on each coffin diagonally across the corner to show that the coffin has been sterilized by the presence of black diagonal stripes on the tape.
2. Check that the autoclave has recording tape and that the ink cartridge is in working order. As printing occurs make sure that the tape is rolled and clipped up so as to insure it does not interfere with access to the autoclave.
3. Autoclave at least 30 minutes after the autoclave has reached a minimum of 121 degrees centigrade (15 p.s.i.). This is cycle one on the autoclave control screen-titled “kill”.
4. In the event that sterilization is not completed correctly (does not reach temperature, does not hold for sufficient time, or indicator tape does not change), the following actions will be taken:
 - Sterilization procedures will be shifted to the other autoclave in the room.

- These procedures will be followed in using that autoclave.
 - Work to repair of the primary autoclave will be initiated by the Biological Sciences Department.
5. After the proper sterilization time and temperature have been achieved, coffins will be handled according to the instructions above. Reusable glassware will be washed in a commercial glassware washer, dried and used again. Discarded plastics will be placed in 30 gallon garbage cans and treated as regular non-biohazardous waste to be removed by the custodian.
 6. Full red biohazard sharps containers will be removed from the laboratory and placed in the larger biohazardous containers on the loading dock of Science North.

To avoid possible mishandling of coffins and medical waste the technician running this autoclave must undergo yearly training/review of correct SOPs for the handling and disposal of waste. Currently, the CSM-Biological Sciences Instructional Support Technician will autoclave all biohazardous material. Should assigned personnel be on vacation or absent from the preroom for one or more days, another person designated and trained by CSM-Biological Sciences will carry out the procedure, following the guidelines above.

Calibration of Autoclaves

This procedure is to be performed in Fisher Science 466 on the medical waste autoclave annually.

On a yearly basis the autoclave used for decontamination of biohazardous materials must be checked for correct autoclave temperatures. This is done using a digital Fluke 51 II thermometer.

The thermometer will be calibrated by placing the probe in boiling water and adjusting the digital read-out to read 100 degrees Centigrade.

The probe is inserted into the autoclave through a port next to the machine's own temperature sensor. The reading is made when the temperature in the autoclave chamber has reached a steady state for at least 10 minutes. Adjustments are then made to the autoclave's temperature sensor, if needed, as outlined in the Steris maintenance protocol.

This procedure will be done by a CSM-Biological Sciences trained equipment technician on an annual basis during the summer months.

Procedure for Use of Kilit Ampule

The test is to be performed monthly. Kilit Ampules containing a live culture of *Bacillus stearothermophilus* and purchased from BBL will be used in this test of autoclave effectiveness.

Two Kilit Ampules will be used, one placed in the autoclave to determine effectiveness of steam sterilization and total death of all bacteria involved. The other Kilit Ampule will not be autoclaved but used as a control.

The Kilit Ampule is to be placed in the middle of a bacteria waste container taken from the laboratory and full of test tubes (some containing live bacterial cultures) and ready for autoclaving.

The Kilit Ampule is to be placed in an area of highest density of tubes of a glass coffin. The ampule should be placed midway between the top and the bottom of the test tubes filling the coffin.

Procedure:

1. Tie a string to the neck of the sealed Kilit Ampule.
2. Place the Kilit ampule in the middle of a glass coffin.
3. Run a normal kill cycle of the autoclave containing the Kilit ampule.
4. Note on the autoclave tape that this particular sterilization contains a Kilit bacterial test for steam sterilization.
5. Autoclave the material for a minimum of 30 minutes or greater at a minimum temperature of 121degrees centigrade (15 p.s.i.)
6. After the normal autoclave cycle, remove the Kilit Ampule from the sterilized waste container by pulling it out of the coffin by the string and placing it with the unautoclaved control in a 55 degree centigrade incubator for 24 hours. Both ampules will be label accordingly before incubation.
7. Examine both ampules after 24 hours of incubation for growth and pH change.
 - a. The unautoclaved control will show both turbidity and a color change from purple, before incubation, to yellow after incubation.
 - b. The autoclaved control will not show turbidity and the broth will remain purple in color.

The results of this monthly test will be kept in a log book next to the autoclave. In addition, notes will be made on autoclave record tape noting the results of the test.

In the event that the test shows sterilization to be unsatisfactory, the sterilization procedure will be transferred to the other autoclave in the same room pending repair, calibration, and successful testing of the primary autoclave.

Handling of Preserved Tissues

Preserved tissues are handled as hazardous waste, based on the characteristics of the preservatives used. Contact the EH&S Department for disposal.

Record Retention

All tracking documents, treatment records, and other required documentation will be maintained on-site and available for review for a period of three (3) years.

Closure Plan

Upon closure of the facility, all equipment, facilities, and non-disposable items used in the operation of the treatment process will be decontaminated either by steam sterilization or by disinfection with a commercial quaternary ammonium salt disinfectant, mixed and used per the manufacturer's directions. Any items that are not to be retained will be disposed of as medical waste to our contracted medical waste disposal company. It is estimated that closure will cost less than \$1000.00.

Training Plan

Staff who operate the treatment process have extensive professional backgrounds and experience in operating autoclaves for sterilization. In addition to training/SOP as outlined in the On-Site Medical Waste Treatment as outlined above, the operator(s) of the autoclave receive yearly training on personal protective equipment (PPE), spill and exposure response, and blood borne pathogens.

Emergency Actions

Non-Emergency Routine Clean-up Procedures (Small Spill Release)

Releases of small quantities which pose no safety or health threat, do not adversely affect the environment, do not require the involvement of Environmental Health and Safety (EH&S) and may be cleaned up by trained, department personnel with appropriate personal protective and spill equipment. Personnel should:

- Ensure they are wearing proper protective equipment;
- Eliminate or stop the source of the spill;
- Prevent the material from spreading;
- Disinfect and absorb the material using appropriate spill wipes or one of the methods described below;
- Dispose of contaminated debris and PPE in designated biowaste containers; and

- Report spill to the area supervisor.

Minor and/or Major Response Procedures (Large Spill Release)

In the event of a spill, unplanned release that cannot be controlled by properly trained department personnel, or potential release of medical waste to the environment, Cal Poly University Police Dispatch shall be contacted immediately, 24 hours a day, using the emergency phone number 911. The dispatcher on duty will contact the Environmental Health & Safety Supervisor by phone or pager, and the EH&S Supervisor shall take the necessary actions to mitigate or remediate the situation.

Spills of biohazardous materials shall be decontaminated using one of the following methods:

- Exposure to hot water of at least 82 degrees Centigrade (180 Fahrenheit) for a minimum of 15 seconds.
- Exposure to chemical sanitizer by rinsing with, or immersion in, one of the following for a minimum of three minutes:
 1. Hypochlorite solution (500 ppm available chlorine)
 2. Phenolic solution (500 ppm active agent)
 3. Iodoform solution (100 ppm available iodine)
 4. Quaternary ammonium solution (400 ppm active agent)

Personnel performing disinfection procedures shall be equipped with the appropriate personal protective equipment for the situation, but at a minimum shall wear chemical eye protection and latex gloves. Protective clothing, shoes, and a face shield may be required for large quantities of biohazardous materials.

Certification

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

Signature: _____

Date: _____

Erin Winett
Environmental Protection Specialist, Cal Poly EH&S