HUMBOLDT STATE UNIVERSITY

Environmental Health & Occupational Safety
305 Student and Business Services Building, ext. 5711

MEDICAL WASTE MANAGEMENT PLAN

This medical waste management plan has been developed and implemented in accordance with the requirements and guidelines of the Medical Waste Management Act, Health and Safety Code, Part 14, Chapter 1, §117600, et seq.

I. General Information **Date:** March 9, 1999 **Reviewed & Updated:** October 18, 2006

Facility Name: Humboldt State University
Facility Address: #1 Harpst Street
Arcata, CA 95521

Facility Contact: Tom Manoli, Environmental Health & Safety Coordinator/Biosafety Officer
Environmental Health and Occupational Safety
(707)826-5711

Facility Type: Educational, California State University

Generation Sites and Responsible Persons:

Child Development Laboratory (Occasional 1st aid waste items)
Claire Knox - Director

HSU Children's Center (Occasional 1st aid waste items)
Trudi Walker - Director

Physical Education Department
David Kinzer - Professor (Occasional 1st aid waste items)

Plant Operations (Occasional waste items located on campus by grounds personnel)
Tim Moxon - Supervisor, Grounds/Landscaping

Public Safety (Occasional waste items from law enforcement incidents and 1st aid.)
Thomas Dewey - Chief of University Police

Student Health Center (Medical waste stream)
Mary Grooms VanCott - Associate Director of Student Health Services

II. Waste Description

Medical wastes generated at Humboldt State University consist of waste materials typical of those produced by a general medical care clinic and from minor trauma management. Waste materials are generated by diagnostic procedures, minor outpatient surgical procedures, and emergency medical care. No chemotherapy or major surgical procedures are performed on campus. There are no pathology services or associated procedures performed at Humboldt State University.

Other medical wastes include blood contaminated materials from first aid treatment performed in the Physical Education Department, the HSU Children's Center, the Child Development Laboratory, and the Student Health Center. Occasionally syringes and/or blood contaminated materials are discovered on campus by Public Safety, Plant Operations grounds keepers, student housing custodial staff and other custodial personnel.

Biohazardous wastes generated by the Biology Department have been determined by the Department of Health Service, Medical Waste Branch to be outside the scope of the Medical Waste Management Act..

Waste streams from the above sources may contain, but are not limited to, the following:

Blood or body fluids -	Liquid blood elements or other regulated body fluids, or articles contaminated with blood or body fluids.
Laboratory wastes - -	Specimens of microbiological cultures, live and attenuated vaccines, and culture media.
Sharps - - - - - - - - - -	Syringes, needles, blades, broken glass.
Pharmaceuticals- - - -	Out dated and returned pharmaceuticals from the Student Health Center.

III. Estimated Monthly Waste Volume

The estimated volume of medical waste generated from all sites is less than 200 pounds per calender month. HSU is a small quantity generator (MWMA §117760).

IV. Waste Hauler

Primary Waste Hauler:

Med Tec, Inc.
2641 Visser Ct.
McKinleyville, CA 95519
(707)839-5544
Contact: Brett Visser

Backup Hauler and Transfer Station:

Medwaste Disposal Service, Inc.
1612 Star Dr.
Yuba City, CA 95991
Permit #P-51-00156
(530) 790-0170

V. Offsite Treatment Facility

Med Waste Disposal Service, Inc.
1612 Star Dr.
Yuba City, CA 95991
Permit #P-51-00156
(530) 790-0170

Sanitec (Pharmaceutical Waste)
2900 Apron Ave, Bldg. 1260
Atwater, CA 95301
(408) 210-2411

VI. Definitions

Biohazard bag - means a disposable red bag that is impervious to moisture and has a strength sufficient to preclude ripping, tearing, or bursting under normal conditions of usage and handling of the waste-filled bag. A biohazard bag shall be constructed of material of sufficient single thickness strength to pass the 165-gram dropped dart impact resistance test as prescribed by Standard D 1709-85 of the American Society for Testing and Materials and certified by the bag manufacturer.

Biohazardous waste - means any of the following:

(a) Laboratory waste, **including, but not limited to**, all of the following:
(1) Human or animal specimen cultures from medical and pathology laboratories.
(2) Cultures and stocks of infectious agents from research and industrial laboratories.
(3) 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 identified by the department, and culture dishes and devices used to transfer, inoculate, and mix cultures.
(b) 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.
(c) Animal parts, tissues, fluids, or carcasses suspected by the attending veterinarian of being contaminated with infectious agents known to be contagious to humans.
(d) Waste, which at the point of transport from the generator's 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.
(e) 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 highly communicable to humans.
(f) (1) 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, 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 paragraph is not subject to Chapter 6.5 (commencing with Section 25100) of Division 20.
(2) For purposes of this subdivision, "chemotherapeutic agent" means an agent that kills or prevents the reproduction of malignant cells.
(3) 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 feasiblely be removed by scraping.
(g) Waste that is hazardous only because it is comprised of pharmaceuticals, as defined in Section 117747. Notwithstanding subdivision (a) of Section 117690, medical waste includes biohazardous waste that meets the conditions of this subdivision. Biohazardous waste that meets the conditions of this subdivision is not subject to Chapter 6.5 (commencing with Section 25100) of Division 20.

Medical waste - means waste that meets both of the following requirements:
(1) The waste is composed of waste that is generated or produced as a result of any of the following actions:
(A) Diagnosis, treatment, or immunization of human beings or animals.
(B) Research pertaining to the activities specified in subparagraph (A).
(C) The production or testing of biologicals.
(D) The accumulation of properly contained home-generated sharps waste that is brought by a patient, a member of the patient's family, or by a person authorized by the enforcement agency, to a point of consolidation approved by the enforcement agency pursuant to Section 117904 or authorized pursuant to Section 118147.
(E) Removal of a regulated waste, as defined in Section 5193 of Title 8 of the California Code of Regulations, from a trauma scene by a trauma scene waste management practitioner.
(2) The waste is either of the following:
(A) Biohazardous waste.
(B) Sharps waste.
(For purposes of this section, "biologicals" means medicinal preparations made from living organisms and their products, including, but not limited to, serums, vaccines, antigens, and antitoxins.)
(Medical waste includes trauma scene waste.)

Medical waste that has been treated in accordance with Chapter 8 (commencing with Section 118215) and that is not otherwise hazardous, shall thereafter be considered solid waste as defined in Section 40191 of the Public Resources Code and not medical waste.

Medical waste does not include any of the following:
(a) Waste generated in food processing or biotechnology that does not contain an infectious agent as defined in Section 117675.
(b) Waste generated in biotechnology that does not contain human blood or blood products or animal blood or blood products suspected of being contaminated with infectious agents known to be communicable to humans.
(c) Urine, feces, saliva, sputum, nasal secretions, sweat, tears, or vomitus, unless it contains fluid blood, as provided in subdivision (d) of Section 117635.
(d) Waste which is not biohazardous, such as paper towels, paper products, articles containing non-fluid blood, and other medical solid waste products commonly found in the facilities of medical waste generators.
(e) Hazardous waste, radioactive waste, or household waste.
(f) Waste generated from normal and legal veterinarian, agricultural, and animal livestock management practices on a farm or ranch.

Medical Waste Container - means the rigid container in which the medical waste is placed prior to transporting for purposes of storage or treatment. (Medical waste containers must be labeled with the words “Biohazardous Waste” or the word “Biohazardous” along with the international biohazard symbol. Labels must be placed so that they are visible from any angle of view. Medical

waste containers shall be equipped with tight fitting lids that will prevent leakage of materials should the container be tipped over.)

Hazardous waste hauler - means a person registered as a hazardous waste hauler pursuant to Article 6 (commencing with Section 25160) and Article 6.5 (commencing with Section 25167.1) of Chapter 6.5 of Division 20 and Chapter 30 (commencing with Section 66001) of Division 4 of Title 22 of the California Code of Regulations.

Sharps container - means a rigid puncture-resistant container that, when sealed, is leak resistant and cannot be reopened without great difficulty. (Sharps containers must be labeled with the words "Biohazardous Waste" or the word "Biohazardous" along with the international biohazard symbol. Labels must be placed so that they are visible from any angle of view.)

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.
(c) Any item capable of cutting or piercing that is contaminated with trauma scene waste.

Tracking document - means the medical waste tracking document specified in Section 118040. The tracking document shall include, but not be limited to, all of the following information:
(1) The name, address, telephone number, and registration number of the transporter, unless transported pursuant to Section 118030.
(2) The type and quantity of medical waste transported.
(3) The name, address, and telephone number of the generator.
(4) The name, address, telephone number, permit number, and the signature of an authorized representative of the permitted facility receiving the medical waste.
(5) The date that the medical waste is collected or removed from the generator's facility, the date that the medical waste is received by the transfer station, the registered large quantity generator, or point of consolidation, if applicable, and the date that the medical waste is received by the treatment facility.

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 Chapter 8 (commencing with Section 118215).

VII. Procedures for the processing, storage, transport and treatment of pathological wastes (recognizable human anatomical remains), trace contaminated tissues, and chemotherapeutic containers and mixed waste.

No medical wastes are produced by this facility which contain or are composed of recognizable anatomical remains.

No mixed wastes are produced by this facility which contain hazardous or radiological materials.

No pathological or chemotherapeutic wastes are generated or disposed of by this facility.

VIII. Containment, Intra-Campus Transport and Storage

Medical Waste

Medical waste shall be contained at the point of origin and transported to the accumulation area at the Student Health Center. Medical Waste shall be stored separately from other types of wastes.

Medical waste, except sharps waste, shall be placed in ASTM (American Society for Testing and Materials) approved red biohazard bags which shall be labeled with the words “Biohazardous Waste” or the international biohazard symbol together with the word “Biohazard” (see Definitions above). Sharps waste shall be placed in sharps containers (see Definitions above).

International Biohazard Symbol

Biohazard bags shall be placed in secondary containment (see Definitions above) at all points of generation. Lids shall be kept on secondary containers whenever they are not in use or when they are left unattended. Secondary containers shall be kept clean and in good repair.

Biohazardous waste shall not be accumulated in red bags for more than seven days. At the end of the seven day period, red biohazard bags shall be transferred to the biohazardous waste accumulation area, room 114 of the Student Health Center.

Biohazard bags being transported to the accumulation area shall be tied securely before removal from their secondary containers. The bags shall be transported to the accumulation area in secondary containment.

Medical waste stored in the accumulation area shall be stored in secondary containment. Medical waste, to include biohazardous waste, shall not be stored for a period of more than 7 days unless it can be stored at a temperature of less than 32^{o}F. Medical waste stored below 32^{o}F may be stored up to, but not beyond, 90 days.

The Associate Director of the Student Health Center shall make sure that all medical wastes transported off-site for treatment are picked up within the 7 day storage period. In the event that the waste hauler is unable to pickup the waste within the designated 7 day period the backup hauler shall be notified and arrangements for immediate pickup shall be made (see emergency action plan).

Reusable, rigid containers used at the sites of generation, for transport and/or for storage as secondary containment of biohazardous waste, shall be inspected by the individual emptying said given container(s). If the container(s) is found to be contaminated with biohazardous waste after being emptied, that container(s) shall be removed from use immediately and decontaminated by one of the following methods:

- Exposure to hot water of at least 82^{o}C (180^{o}F) for a minimum of 15 seconds, or
- exposure to chemical sanitizer by rinsing with, or immersion in, one of the following for a minimum of three minutes:
  - hypochlorite solution (500 ppm available chlorine), or
  - phenolic solution (500 ppm active agent), or
  - iodoform solution (100 ppm available iodine), or
  - quaternary ammonium solution (400 ppm active agent).

Sharps Waste

Sharps shall be discarded into sharps waste containers (see Definitions above). Sharps containers shall be located at each site where sharps wastes are generated. Sharps may not be transported from one room to another for disposal.

Sharps containers that are full (within about one inch from the opening or to a designated level) shall be sealed and transported to the medical waste accumulation area. Should a sharps container begin to emit an odor it shall be immediately sealed and taken to the medical waste accumulation area for disposal.

Biohazardous Waste Accumulation Area

Medical waste accumulated for off site treatment and disposal shall be stored in the medical waste accumulation area, room 114 of the Student Health Center. Access to this room is limited to those personnel that have been approved for entry by Ann Kimbrow, Associate Director of the Student Health Center or by Tom Manoli, Hazardous Materials Coordinator, Environmental Health & Occupational Safety.

The door to the accumulation area shall remain locked except during those periods required to add or remove waste or for other authorized operations. Keys to this room shall remain in the custody of the Plant Operations custodian responsible for handling biohazardous wastes, the Plant Operations custodial supervisor, Ann Kimbrow, Associate Director of the Student Health Center or Tom Manoli, Hazardous Materials Coordinator, Environmental Health & Occupational Safety.

The door to the medical waste accumulation area shall be labeled with the following words:

"CAUTION - BIOHAZARDOUS WASTE STORAGE AREA - UNAUTHORIZED PERSONS KEEP OUT. — CUIDADO - ZONA DE RESIDUOS BIOLOGICOS PELIGROSOS - PROHIBIDA LA ENTRADA A PERSONAS NO AUTORIZADAS".

Transport of biohazardous waste from campus generation points to the Student Health Center

Biohazardous wastes generated by departments outside the Student Health Center shall be transported to the medical waste accumulation area in the Student Health Center. Waste shall be transported in biohazardous waste secondary containment.

IX. Treatment

Sewer Disposal of Liquid Blood

Medical waste that is liquid or semiliquid may be discharged to the public sewage system if the waste is **not** either of the following:
(A) Liquid or semiliquid laboratory waste, as defined in subdivision (a) of Section 117635 Health and Safety Code.
(B) Microbiological specimens, including those specified in subdivision (b) of Section 117635, Health and Safety Code.

Medical waste discharge shall be consistent with the waste discharge requirements placed on the public sewer system by the California Regional Water Quality Control Board.

X. Off-site Transport of Medical Waste

Medical wastes transported off campus for disposal shall only be transported by Med Tec., Inc or the alternate hauler, Medwaste Disposal Service, Inc. Medical waste haulers shall supply to the office of Environmental Health & Occupational Safety a copy of the medical waste tracking document at the time the waste is picked up. The medical waste tracking document shall remain on file in the Hazardous Materials Coordinator's office.

XI. Emergency Action Plan

Mitigation of Spills and Releases

Spills of biohazardous waste shall be reported to the supervisor of the area/department where the spill has occurred. The supervisor shall in turn report, within 24 hours for small spills and immediately for large spills, to the office of Environmental Health & Occupational Safety. Large spills that occur between 5 PM and 8 AM shall be reported to University Police, extension 3456.

Personnel responding to a spill shall wear proper personnel protective equipment to include, at a minimum, latex or nitrile gloves and eye protection.

Spills involving solid biohazardous waste only shall be cleaned up by placing all materials into red bags and the bags into medical waste containers.

Spilled waste material shall be placed into a red bag(s) using a scooping device or tongs. Biohazardous waste should not be picked up by hand even when gloves are worn.

If there is a possibility of contamination of the spill site, disinfect the surface for a minimum of ten (10) minutes with any of the following:

- hypochlorite solution (500 ppm available chlorine), or
- phenolic solution (500 ppm active agent), or
- iodoform solution (100 ppm available iodine), or
- quaternary ammonium solution (400 ppm active agent).

Spills/releases involving liquid or semiliquid biohazardous waste shall be handled in the following manner:

- Contain the spilled material so as to prevent its spread. Absorbent kitty litter type material, absorbent pads, towels of other absorbent materials may be used to contain a spill.

- Preliminary disinfection should be accomplished by covering the surface of the spilled material with any of the following disinfectants:
  - hypochlorite solution (500 ppm available chlorine), or
  - phenolic solution (500 ppm active agent), or
  - iodoform solution (100 ppm available iodine), or
  - quaternary ammonium solution (400 ppm active agent).

  For a minimum of ten (10) minutes

- Clean up and red bag spilled material in the same manner as described above for solid biohazardous waste.

- Re-disinfect the spill site using any of the above described disinfectants. The disinfectant should remain in contact with the contaminated area for at least ten (10) minutes.

Alternate Waste Pick-up Procedure

If the medical waste hauler, Med Tec, notifies the Student Health Center that they are unable to pickup waste at the end of the seven (7) day accumulation period the Associate Director of the Student Health Center, Ann Kimbrow, shall request that a Med Tec representative notify the alternate medical waste hauler, Medwaste Disposal Service, Inc., to arrange for an immediate pickup.

Should Med Tec fail to come to the Student Health Center on the normal pickup day the Associate Director of the Student Health Center, Ann Kimbrow, shall contact Med Tec to determine why a pickup has not been performed and make arrangements for an immediate pickup.

If the Associate Director of the Student Health Center cannot reach a Med Tec representative then pickup of medical waste shall be arraigned directly with Medwaste Disposal Service, Inc.

XII. Certifying Statement

I certify that the above plan and associated information is complete and accurate to the best of my knowledge.

Thomas F. Manoli _____

Hazardous Materials Coordinator/Biosafety Officer *Date*

_____

Signature