



# HAZARDOUS WASTE MANAGEMENT PLAN

Prepared for:

**Crafton Hills College**  
**11711 Sand Canyon Road**  
**Yucaipa, California 92399**

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## CURRENT VERSION OF CHC HAZARDOUS WASTE MANAGEMENT PLAN

The Waste Management Plan that follows has been checked and is the current version. Signify below that this plan is current, and plan revision and date.

Name of Reviewer	Revision	Date

### EMERGENCY TELEPHONE NUMBERS

Local Emergency Dispatch for Fire, Personal Injury or Local Police  
 911

District Police Department  
 909-384-4491  
 (Campus Extension 4491)

State Office of Emergency Services, California State Warning Center  
 800-852-7550 or 916-845-8911

National Response Center (NRC)  
 800-424-8802

Emergency Contacts  
 Jeremy Crooks, Crafton Hills College, Custodial Supervisor  
 909-389-3238  
[jcrooks@sbccd.cc.ca.us](mailto:jcrooks@sbccd.cc.ca.us)

Larry Cook, Crafton Hills College, Director of Facilities & Maintenance  
 909-389-3384  
[lcook@sbccd.cc.ca.us](mailto:lcook@sbccd.cc.ca.us)

Mike Strong, Vice President of Administrative Services  
 909-389-3210  
[mstrong@craftonhills.edu](mailto:mstrong@craftonhills.edu)

Whitney Fields, Safety & Risk Management  
 909-382-4070  
[wfields@sbccd.cc.ca.us](mailto:wfields@sbccd.cc.ca.us)

**EPA IDENTIFICATION NUMBER:** CAD981696347



## 1.0 INTRODUCTION/PROGRAM DESCRIPTION

The purpose of this Hazardous Waste Management Plan (HWMP) is to serve as a guidance document to facilitate the proper handling of the hazardous wastes primarily generated from the Chemistry/Health Sciences departments located in the CHS building (Canyon Hall after Jan. 2016), Maintenance & Operations (M&O) Department, construction operations, and other departments at Crafton Hills College (CHC). CHC is a small quantity generator ([SQG](#), 40 CFR 262.34) and some of its hazardous and universal wastes include:

Waste Corrosive Liquids	Waste Mercury (thermometers)
Respirator Cartridges	Alkaline Batteries
Fluorescent Light Tubes	Aerosol Paint Cans
Compact Fluorescent Light Tubes	Waste Oil-based Paints
High Intensity Discharge Lamps	Waste Paint Thinners

The HWMP assures compliance with all Federal, State, and Local regulations. All personnel who handle, generate, package, label or move waste must refer to this document when making waste management decisions. Waste inspection procedures are also contained in the HWMP.

Due to the ever-changing regulatory statutes developed by the Federal, State and Local agencies, it is imperative that the contents of this HWMP be updated regularly to reflect any changes mandated by the regulatory agencies. This HWMP will require updates as inspection procedures, waste types, and waste profiles change, necessitating changes in waste management.

## 2.0 SCOPE

This HWMP identifies and establishes consensus for policies and procedures for managing hazardous wastes and assures compliance with all Federal, State, and Local regulations.

## 3.0 DEFINITIONS

- CUPA – Certified Unified Program Agency
- DTSC – Department of Toxic Substance Control
- EPA – Environmental Protection Agency
- Non-RCRA – A California hazardous waste that does not meet the definition of RCRA hazardous waste at the federal level
- RCRA – Resource Conservation and Recovery Act



## 4.0 RESPONSIBILITIES

### 4.1. VICE PRESIDENT OF ADMINISTRATIVE SERVICES

- Responsible for ensuring that all affected groups at CHC are meeting the intent under this HWMP.
- Provide program framework for labs and departments.
- Provide training resources/consultative services.
- Obtain and maintain the EPA identification number.
- Manage regulatory compliance and internal finances for waste disposition.
- Ensure departmental compliance with all the procedures outlined in this HWMP, the California Health & Safety Code, Title 22, California Code of Regulations (CCR), and Title 40, Code of Federal Regulations (CFR).
- Record keeping of the types and amounts of hazardous wastes generated.
- Record keeping of all Uniform Hazardous Waste Manifests.

### 4.2. LAB MANAGERS, INSTRUCTORS, DEANS, DIRECTORS, AND DEPARTMENT HEADS

- Convey importance of this HWMP to lab technicians and employees.
- Responsible for facilitating departmental training, or oversee departmental training.
- Ensure that lab technicians/employees receive proper training through online safety training resources or contacting the Vice President of Administrative Services or Director, Safety & Risk Management for training assistance.
- Responsible for lab technicians/employees following policies and procedures outlined in this HWMP.

### 4.3. LAB TECHNICIANS/EMPLOYEES

- Have a general knowledge of hazardous waste characteristics.
- Responsible for management of hazardous waste in their respective assigned work areas.
- Provide identification of hazardous waste for subsequent handling.
- Participate in training programs in order to obtain the necessary skills and knowledge to identify and handle hazardous waste from a safety and health perspective.
- Follow CHC policies and the procedures outlined in this HWMP.

### 4.4. FACILITIES & MAINTENANCE DEPARTMENT

- Provide good service to meet employee needs.
- Handle material(s) safely upon possession from labs and departments, until final disposition.



- Recycle/reuse, where possible.
- Coordinate identification and waste characterization with CHC designated hazardous waste contractor (if not done by the lab/department).
- Coordinate hazardous waste manifesting with CHC designated hazardous waste contractor (EMT).
- Coordinate off-site hazardous waste transportation requirements with CHC designated hazardous waste contractor (EMT).
- Coordinate land disposal restrictions for certain hazardous wastes with CHC designated hazardous waste contractor (EMT).
- Review and sign all Uniform Hazardous Waste Manifests under the supervision of the Vice President of Administrative Services.

## 5.0 TRAINING REQUIREMENTS

### 5.1 General

Employees who handle hazardous waste in any capacity must be trained at a level equal with their duties. Training records must be kept for all employees. CHC, through the SBCCD, Human Resources Department, Safety & Risk Management office maintains a database for all employee training records. Records may be reviewed by accessing the District Human Resources department at (909) 382-4040.

### 5.2 Hazardous Waste Generator Training

Hazardous Waste Generator training is required initially, with an ongoing annual review per [22 CCR §66265.16](#) and applies to anyone who handles, generates, packages, labels hazardous waste. CHC conducts this training annually and the training is coordinated by the Vice President of Administrative Services and the Director, Safety & Risk Management.

### 5.3 Universal Waste Training

Employees are required to be trained in proper universal waste management including handling, packaging, storing and labeling the universal waste, as well as how to respond to releases ([22 CCR §66273.36](#)).

### 5.4 Spill Response Training

Spill Response training is specified in the CHC Business Emergency/Contingency Plan (on file with the VP for Administrative Services and the San Bernardino County Fire Marshall – Hazardous Waste Division) and in the CHC Chemical Hygiene Plan. CHC provides spill response training annually for applicable personnel. Training can be requested for new



employees or annual refreshers by contacting the Vice President of Administrative Services at (909) 389-3210 or Director, Safety & Risk Management at (909) 382-4070.

## 6.0 HAZARDOUS WASTES

The handling and storage of hazardous and non-hazardous waste requires that specific procedures be followed to maintain compliance with Federal, State, and Local regulations. The first step in the process is to properly identify and classify the waste. The following Section identifies the various waste types and what constitutes a waste of that type. Common hazardous waste streams at CHC are listed in the Table 1 below.

Table 1: CHC Waste Stream Designation/Category/Profile<sup>1</sup> Table

CHEMICAL	NON-RCRA HAZARDOUS WASTE SOLID	WASTE CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.	WASTE CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.	WASTE FLAMMABLE LIQUID, N.O.S.	WASTE FLAMMABLE GAS (AEROSOLS), N.O.S.
Hydrochloric Acid		X			
Mercury			X (toxic)		
Nitric Acid		X			
Phosphoric Acid		X			
Potassium Hydroxide			X		
Respirator Cartridges	X		X		
Sodium Hydroxide			X		
Waste Aerosols					X
Waste Paint-Related Materials			X	X	

### 6.1 RECOGNIZING SOLID WASTES

Any material, chemical, or solution determined to be an unusable product, becomes a solid waste. A solid waste is any material that is discarded, i.e. abandoned, recycled, or considered inherently waste-like ([22 CCR §66261.2](#)).

<sup>1</sup> Hazardous waste designations based upon the information provided by the contractor.





Federal and State regulations define hazardous waste as a substance that poses a hazard to human health or the environment when improperly managed. Hazardous wastes may be solid, liquid, gaseous or a combination of solid and liquid (sludge). A liquid can be a solid waste. To assist in this task, common hazardous waste streams are determined and classified in this HWMP as listed above in Table 1.

## 6.2 RCRA HAZARDOUS WASTE

RCRA hazardous wastes are also known as EPA wastes or Federal wastes. A waste is a RCRA hazardous waste if:

- (1) It is not excluded from classification as a waste or a hazardous waste; and
- (2) It meets any of the following criteria:
  - (A) It exhibits any of the characteristics of hazardous waste identified in [22 CCR §66261.20](#) (Characteristic Waste, Section 6.3);
  - (B) It is a listed waste as identified in [22 CCR §66261.30](#) (Listed Waste, Section 6.4);  
or
  - (C) It is a mixture of a waste and one or more hazardous wastes. However, mixtures of wastes and hazardous wastes are not hazardous wastes<sup>2</sup>, if the generator can demonstrate that the mixture consists of wastewater, the discharge of which is subject to regulation under either section 402 or section 307(b) of the Clean Water Act. This discharge requires an industrial wastewater permit approved by the Bureau of Sanitation.

However, the waste is not a RCRA hazardous waste if:

- (1) It is determined that the waste does not meet the criteria of a hazardous waste by:
  - 1 Testing the waste according to approved methods (Sampling & Analysis); or
  - 2 Applying knowledge of the hazardous properties of the waste in light of the materials or the processes used and the characteristics (Process Knowledge).

## 6.3 CHARACTERISTIC WASTES ([22 CCR §66261.20-24](#))

The EPA has set additional requirements for any solid waste determined to be hazardous if it meets any of the definitions of a "characteristic" waste. The following are EPA assigned Waste Code Numbers and definitions.

Flammability/Ignitability (D001) – A solid waste is ignitable if it has any of the following properties: (1) it is a liquid and has a flash point below 140 °F, (2) it is not a liquid and is

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<sup>2</sup> Mixtures of a non-hazardous waste and hazardous waste that was listed for exhibiting a hazardous characteristic are not considered hazardous if the mixture no longer exhibits any hazardous characteristics.



capable of causing fire through friction, absorption of moisture or spontaneous chemical changes and when ignited it burns so vigorously that it creates a hazard, (3) it is an ignitable compressed gas, and (4) it is an oxidizer. Examples include acetone, propane, acetylene, oil-based paints, and many solvents.

Corrosivity (D002) – A solid waste is corrosive if it has any of the following properties: (1) it is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, (2) it is a liquid and corrodes steel at a rate greater than 0.25 inches a year. Examples include muriatic acid and corrosive cleaning solutions that contain sodium hydroxide.

Reactivity (D003) – A solid waste is reactive if it has any of the following properties: (1) it is normally unstable and readily undergoes violent change without detonating, (2) it reacts violently with water, (3) it forms explosive mixtures with water, (4) when mixed with water it generates toxic gases, vapors or fumes, (5) it is a cyanide or sulfide bearing waste, which when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors, or fumes, (6) capable of detonation or explosive reaction if subjected to a strong initiating source or if heated under confinement, and (7) it is readily capable of detonation or explosive reaction at standard temperature.

Toxicity (D004) – A solid waste exhibits the characteristic of toxicity if it is equal to or exceeds the Toxicity Characteristic Leaching Procedure (TCLP) limit listed in 40 CFR 261.24 Table I – Maximum Concentration of Contaminants for the Toxicity Characteristic. It is then assigned the corresponding waste code listed in Table I. Table I is presented in Appendix A.

#### **6.4 LISTED WASTES ([22 CCR §66261.30-35](#))**

The EPA has developed specific lists of materials for which they have determined are hazardous wastes. There are three categories of these wastes:

- (1) Chemical products which are regulated as hazardous wastes when they are discarded commercial chemical products, off-specification species, container residues, and spill residues thereof (P<sup>3</sup> and U waste codes listed materials).
- (2) Specific wastes from specific types of industrial processes (K waste code).
- (3) Wastes from non-specific types of industrial processes (F waste code).

#### **6.5 NON-RCRA HAZARDOUS WASTE**

The California EPA and Department of Toxic Substances Control (DTSC) regulate materials in addition to those that are regulated by the EPA. These wastes are characterized as non-RCRA hazardous wastes (i.e. iodine, glucose, methyl orange, phenol red, etc.). All EPA and non-RCRA Hazardous Wastes are also assigned a specific [California Waste Code Number](#).

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<sup>3</sup> P-listed wastes are considered Acutely Hazardous Wastes.





The following are non-RCRA/California hazardous wastes:

- (1) It is listed in or contains a constituent listed in Appendix X of 22 CCR 66261 (Appendix B).
- (2) It contains a substance listed in [22 CCR 66261.24](#) Table II or Table III (Appendix C) at a concentration in milligrams per liter of waste extract above the Table value, as determined using the Waste Extraction Test (WET).
- (3) It has an acute oral LD<sub>50</sub> less than 2,500 milligrams per kilogram.
- (4) It has an acute dermal LD<sub>50</sub> less than 4,300 milligrams per kilogram.
- (5) It has an acute inhalation LC<sub>50</sub> less than 10,000 parts per million as a gas or vapor.
- (6) It has an acute aquatic 96-hour LC<sub>50</sub> less than 500 milligrams per liter (fish kill test).
- (7) It contains any of the substances listed in [22 CCR 66261.24\(a\)\(7\)](#) at a single or combined concentration equal to or exceeding 0.001 percent by weight.
- (8) It has been shown through experience or testing to pose a hazard to human health or environment because of its carcinogenicity, acute toxicity, chronic toxicity, bioaccumulative properties or persistence in the environment.

#### **6.6 EXTREMELY HAZARDOUS WASTE ([22 CCR §66261.107](#))**

A waste or a material is considered extremely hazardous if it:

- (1) Has an acute oral LD<sub>50</sub> less than or equal to 50 milligrams per kilogram;
- (2) Has an acute dermal LD<sub>50</sub> less than or equal to 43 milligrams per kilogram;
- (3) Has an acute inhalation LC<sub>50</sub> less than or equal to 100 parts per million as a gas or vapor;
- (4) Contains any of the substances listed in [22 CCR §66261.24\(a\)\(7\)](#) at a single or combined concentration equal to or exceeding 0.1 percent by weight;
- (5) Has been shown through experience or testing that human exposure to the waste or material may likely result in death, disabling personal injury, or serious illness because of the carcinogenicity, high acute or chronic toxicity, bioaccumulative properties, or persistence in the environment of the waste or material;
- (6) Is water-reactive; or



- (7) Contains a substance listed in [22 CCR §66261.113](#) at a concentration in milligrams per kilograms of waste extract above the Table value, as determined using the WET method.

## 6.7 UNIVERSAL WASTE

New laws adopted since 2000 created California's "Universal Waste Rule" to simplify how we manage common hazardous wastes. This allows generators to manage certain wastes in a less stringent way.

Universal wastes are hazardous wastes that are common to the work place and pose a lower risk to people and the environment than other hazardous wastes. Federal and State regulations identify universal wastes and provide simple rules for handling, recycling, and disposing of them. The regulations, called the "Universal Waste Rule," are in the California Code of Regulations, Title 22, Division 4.5, Chapter 23.

All universal wastes are hazardous wastes and, without the new rules, they would have to be managed under the same stringent standards as other hazardous wastes. Also, universal wastes are generated by a wide variety of people rather than by the industrial businesses that primarily generate other hazardous wastes.

The following items are universal wastes when they are no longer useful or are discarded:

- (1) Mercury thermostats. These thermostats contain small glass capsules of mercury, a shiny liquid metal, to make electrical contact. Modern electronic thermostats do not contain mercury.
- (2) Batteries. Universal waste batteries include all types, such as rechargeable nickel-cadmium batteries, silver button batteries, mercury batteries, small sealed lead acid batteries (burglar alarm and emergency light batteries), most alkaline batteries, carbon-zinc batteries, and any other batteries that exhibit a characteristic of a hazardous waste (§66261.20 through §66261.24).

*NOTE: Spent automotive-type lead acid storage batteries are not universal waste. They are hazardous wastes that require specific management.*

- (3) Lamps – Universal waste lamps include fluorescent tubes, high intensity discharge lamps, sodium vapor lamps, and any other lamps that exhibit a characteristic of a hazardous waste.



- (4) Non-empty aerosol cans – Aerosol cans sometimes need to be discarded before they are completely empty. This occurs for a variety of reasons, including when the spray mechanism no longer operates as designed, the propellant is spent, or the product is no longer used.
- (5) Mercury switches – These switches include thermostats and tip switches in portable heaters, silent wall switches, motor vehicle light switches, and other mercury-containing switches and products containing them.
- (6) Mercury thermometers, including fever thermometers.
- (7) Pressure or vacuum gauges that contain mercury such as U tube manometers, barometers, and sphygmomanometers (blood pressure meters).
- (8) Consumer electronic devices – Electronics that exhibit hazardous characteristics such as some cell phones, game consoles, and computers.
- (9) Gauges – Vacuum and pressure gauges that contain mercury, including blood pressure gauges, barometers, and manometers.

#### **6.8 CHARACTERIZING WASTES**

It is the responsibility of the Laboratory Technicians to determine if the waste is hazardous through coordination with the Vice President of Administrative Services, who will consult with the Director, Safety & Risk Management or the contracted hazardous waste management vendor. This is done through testing, knowing what the material is, or through process knowledge. These results known as waste profiles are listed for each known waste stream in the CHC Waste Stream Designation/Category/Profile Table (Table 1).

#### **6.9 INHERENTLY WASTE-LIKE CHEMICALS/LEGACY CHEMICALS**

“Inherently waste-like chemicals” include expired chemicals, chemicals in deteriorating containers, and chemicals that appear to be or are unusable. State inspectors may issue fines or infractions for inherently waste-like chemicals in the laboratory. Chemicals should not be kept past their expiration date, and cleanouts should be conducted during annual chemical inventory updates.

Legacy chemicals are those that are left behind by laboratory staff when they leave the university or move laboratories. They become the responsibility of the new space occupants. Directors/Department Heads or the principal laboratory personnel are required to completely clean out laboratories before they leave, including all hazardous chemicals and waste. Legacy chemicals are unwanted chemicals that are



sometimes left behind after a move. If a new staff member moves into a laboratory that has legacy chemicals in it, he/she should tell their department head immediately. Unless there is a clear record of use and storage of the legacy chemical, and they think that they will use them, arrange to request their collection as hazardous waste and follow all waste accumulation rules, including hazard identification, labeling and segregation.

## 7.0 CONTAINERS AND MANAGEMENT

### 7.1 PLACING A CONTAINER INTO SERVICE

When placing a drum, portable tank, or tote into service for the collection of industrial or hazardous wastes, the following sequence of events must occur:

- (1) **Selecting a Container** – The proper drum, portable tank, or tote must be selected for the accumulation of each unique waste stream. Accumulate waste in an appropriate container compatible with the waste. Containers that were designed for solid chemicals should not be used for liquids. Use only containers that show no sign of damage or deterioration.

Only use containers with screw top closures. The lids of waste containers should be removed only when waste is being added to the container. Use spring loaded funnels for adding waste frequently to waste containers.

If wastes will be accumulated in containers greater than 5-gallons in volume, ensure the drums used to accumulate regulated wastes are in good condition and are approved by the Department of Transportation (DOT) for highway mode transportation.

Do not fill the containers completely. Each container must have at least one inch of headspace above the waste when it is collected. Request the collection of waste ahead of time to avoid overfilling containers.

- (2) **Labeling of Container** – The container must be properly labeled immediately (See Section 8.0) just prior to placing waste into the container.
- (3) **Satellite Accumulation Area** – A satellite accumulation area is any accumulation container that is kept in the individual's routine work area and is under his/her control. Satellite accumulation areas allow generators to accumulate 55-gallons of a single hazardous waste stream/type (or 1-quart of acutely hazardous waste or extremely hazardous waste) in multiple locations. Therefore, an individual can



accumulate multiple containers of hazardous acutely hazardous waste or extremely hazardous waste as long as the material is not of the same waste stream.

Satellite accumulation containers must be moved from their location and placed into the 180-day waste accumulation area within one year. Once the container is full in the satellite accumulation area, it must be moved within three days to the 180-day accumulation area.

The hazardous waste is stored in satellite accumulation areas in the following buildings:

- (A) Anatomy/Biology – LADM 214, Canyon Hall – CYN 2<sup>nd</sup> Floor (beginning Jan. 2016)
- (B) Art – OE1 101
- (C) Chemistry – CHS 233, Canyon Hall – CYN 1<sup>st</sup> Floor (beginning Jan. 2016)
- (D) Microbiology – MSA 108, Canyon Hall – CYN 2<sup>nd</sup> Floor (beginning Jan. 2016)
- (E) Physics – LADM 114, CNTL 2<sup>nd</sup> Floor (beginning Jan. 2016)
- (F) Theatre – PAC 101 (Backstage)
- (G) Maintenance and Operations, universal waste stored outside of the custodial supervisor's office)
- (H) Maintenance and Operations Pad South End (waste oil stored under a shed)

**(4) 180-Day Accumulation Area**

(270-Day Accumulation Area if waste is transported a distance of 200 miles or more from CHC)

The central storage area at CHC is in the Maintenance and Operations Pad at Building 1; it is located on Emerald View Drive, north of Campus Drive. All of the waste from the satellite accumulation areas identified above is profiled in the satellite locations every 90 days for proper transportation and disposal.

A 180-day storage area is an area designed to store hazardous waste containers. If the container is used for accumulation in the 180-day storage area, the date of its first use must be put on the label in the appropriate location immediately upon use. It must be labeled and dated immediately upon use. The container must then be recycled or disposed to an off-site facility for disposal within 180 days.

When used, the central hazardous waste storage area shall include a secondary containment capable of holding the volume of the largest storage container plus sufficient freeboard to offset the accumulation of any potential precipitation into the containment area. Secondary containment structures must be made of material compatible with the stored material and environmental conditions and be





constructed in such a manner so as to contain a potential release from the storage container(s). Secondary containment systems must not be compromised by the storage of other material, debris, or water (including storm water). Containers shall be inspected periodically, and records kept of those inspections.

- (5) **Maintaining Containers** – When a drum or container has been put into service it must be kept closed at all times, and containers must be kept in good condition. Leave headspace in the container for temperature and vapor pressure changes. A drum/container should be opened only when adding material. Open-top drums must have the lid securely fastened using the ring band. All bungs on open and closed-top drums must be kept closed to prevent evaporation or spilling of the waste material. These measures are not only regulatory requirements, but also can prevent a spill should a drum be overturned. If a device (i.e. funnel, pump, etc.) has been installed on a drum, it must seal the drum to prevent leakage, or be removed and have bungs put in place after its use.
- (6) **Grounding Containers** – Drums and/or storage containers used to store and/or dispense flammable liquids must be grounded.

## 7.2 STORAGE REQUIREMENTS

There are different requirements for storage of hazardous wastes and are listed in Title 40 Part 264. These requirements depend on the quantities stored and where it is stored. Hazardous waste may be accumulated in either a satellite accumulation area or in a 180-day accumulation area. Either of these areas must be managed to prevent the spill or release of the wastes and to prevent the mixing of incompatible waste streams. All stored containers must have sufficient aisle space of at least 36 inches wide for container inspections. Spill kits should be located near the storage area where liquids are stored. <http://www.epa.gov/osw/hazard/tsd/storage.htm>

Store the waste away from emergency equipment such as safety showers and emergency access panels. Do not block exits. Do not store the waste near or in sinks. Do not accumulate large amounts of waste in the fume hood. If the waste is stored in an area that drains to a floor drain, the waste must be in secondary containment.

Segregate regulated chemical waste by chemical compatibility. Incompatible wastes or incompatible materials must not be placed in the same container or container storage area. All incompatible materials must be separated by means of a dike, berm, wall, or distance ([§66265.177](#)). Secondary containment should be used for segregation of incompatible wastes accumulated in the same area, and should be able to adequately contain all of the contents of the containers. Chemical wastes should be physically segregated by observing the general classes listed in Table 2 below and by checking the Safety Data Sheets for the chemical.



Table 2: Chemical Use Category Segregation Table

Acids	Segregate acids from reactive metals such as sodium, potassium, magnesium.
	Segregate oxidizing acids from organic acids such as glacial acetic acid and from flammable and combustible materials, such as cardboard boxes.
	Segregate acids from chemicals which could generate toxic or flammable gases upon contact.
	Segregate acids from bases.
Bases	Segregate bases from acids, metals, explosives, organic peroxides and easily ignitable materials.
Flammables	Store in approved safety cans or cabinets. Segregate from oxidizing acids and oxidizers. Keep away from any source of ignition: heat, sparks, or open flames.
Oxidizers	Store in a cool dry place. Keep away from combustible and flammable materials. Keep away from reducing agents such as zinc, alkali metals, and formic acid.
Cyanides	Segregate from acids and oxidizers.
Water Reactive Chemicals	Store in a cool dry place away from any water source. Have a Class D fire extinguisher available in case of fire.
Pyrophoric Substances	(Materials that will react with the air to ignite when exposed, e.g., Iron Sulfide, Alkali Metals.) Store in a cool dry place, making provisions for an airtight seal.

### 7.3 COLLECTION

A request for the collection of wastes can be made by emailing a list of the hazardous waste and its location(s) to Jeremy Crooks, Custodial Supervisor, at [jcrooks@sbccd.cc.ca.us](mailto:jcrooks@sbccd.cc.ca.us) or (909) 389-3238, or Larry Cook, Director of Facilities and Maintenance at [lcook@sbccd.cc.ca.us](mailto:lcook@sbccd.cc.ca.us) or (909)389-3384. If you do not receive a timely response on your collection request, please call the CHC, Administrative Services main number at (909) 389-3211 and submit your request.



CHC currently has a service agreement with the hazardous waste contractor, Emergency Management Technologies (EMT). EMT is responsible for profiling, transporting and disposing of the wastes generated at CHC.

Jeremy Brown – EMT Account Manager  
1436 S. Gage Street, San Bernardino, CA 92408  
O-800-579-6834  
C-951-323-4773

Service agreements which involve hazardous waste removal, transport, treatment or disposal by other vendors must be approved by Vice President of Administrative Services or the Director, Safety & Risk Management first. Arrangements with outside vendors for collecting hazardous waste must not be made without first contacting the Vice President of Administrative Services or the Director, Safety & Risk Management.

#### **7.4 UNIVERSAL WASTES**

Universal Waste container management is similar to hazardous wastes. The specific requirements for the management of Universal Waste containers are the following:

- (1) Do not dispose of universal waste in the trash.
- (2) Send all universal waste to a facility authorized to collect, recycle or dispose of universal waste.
- (3) Do not accumulate more than 5,000 kilograms (5.5 tons) of universal waste at any one time for Small Quantity Handlers of Universal Wastes.
- (4) Do not store universal waste for longer than one year after generating or receiving the waste. If you think you need more time, contact Director, Safety & Risk Management at (909) 382-4070 to obtain authorization for special provisions from the Certified Unified Program Agency (CUPA) well before your oldest universal waste will be held for one year ([§66273.15](#)).
- (5) Generally, you may not treat universal waste except when cleaning up releases or managing specific wastes as provided in section 66273.13 (for example, removing mercury ampoules from thermostats or removing electrolyte from batteries) (§66273.11). Treatment includes any activity that changes the characteristics of the waste.
- (6) Clean up any releases such as leaking batteries or broken fluorescent tubes. Repackage the damaged universal waste and manage it as universal waste.



Manage any other materials generated, such as cleanup supplies and contaminated soil, as hazardous wastes if they are identified as hazardous waste (§§66273.13 and 66273.17).

### 7.5 EMPTY CONTAINERS

A container is considered "empty" if:

- You have used "normal, no-nonsense means, such as inverting and draining, shaking, scraping, or scooping" to empty the container, while taking appropriate personal protective measures; and
- No more than 3% of the contents remain or no more than 1 inch of residue remains on the bottom of the container or inner liner.

#### Container reuse

If possible, reuse empty chemical containers for disposal of that same chemical or compatible chemicals. If container is reused, completely deface or remove the original label, and fill out and affix a new hazardous waste label to the container.

#### Container recycling

Containers for non-toxic chemicals can be recycled if they are emptied and dried completely and their labels are defaced. Containers for the chemicals listed below can be recycled:

- Acetone
- Alcohols
- Hexane, Toluene, Xylene
- Non-toxic Buffers, Salts
- Sugars, Nutrients
- Cleaning products

Do not put these containers in public area bins; instead, take them to the nearest bottles and cans container outside the building.

#### Container disposal

To dispose of the empty container, follow these directions:

- Dry the container in a well-ventilated area. Use a fume hood if available, or else find an area away from where people are working.
- With a pen, cross out or black out the labels on the container.
- Leave the container uncapped. Throw the cap away separately.
- Place the container in or next to the trash.



## 8.0 LABELING REQUIREMENTS

All wastes must be properly labeled. Labels must be complete, legible, and placed right-side up on the container (not the lid or bottom). The following information must be included on the label:

- (1) The words "Hazardous Waste", "Non-Hazardous Waste", or "Universal Waste".
- (2) The name of the contents.
- (3) CHC and CHC address.
- (4) The composition and physical state, and hazardous properties.
- (5) Accumulation Start Date.

Deface or remove any original labels remaining on the waste container to avoid confusion about the identity of the waste.

### 8.1 HAZARDOUS WASTE

Hazardous Waste labels must meet California requirements for labeling. All hazardous wastes have a California waste number. Some hazardous wastes may not have an EPA waste number. Hazardous waste labels must be placed on the hazardous waste container upon the start of accumulation. An example of the California blank waste label is in Figure 1.0 below.

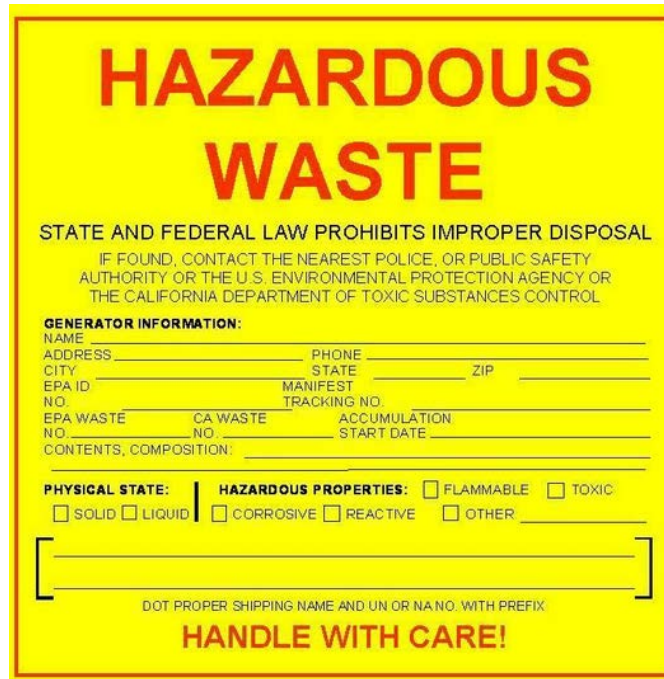


FIGURE 1.0: HAZARDOUS WASTE LABEL

### 8.2 SATELLITE ACCUMULATION

Satellite Accumulation labels must meet California requirements for labeling. All hazardous wastes have a California waste number. Some hazardous wastes may not have an EPA waste number.

The Accumulation Start Date must be filled in as soon as the container is put into service. When it is moved from the satellite accumulation area, it must be dated in the "Date Place in Hazardous Waste Storage Area" line. An example of a blank Accumulation Container label is shown in Figure 2.0 below.



FIGURE 2.0: HAZARDOUS WASTE ACCUMULATION LABEL

### 8.3 UNIVERSAL WASTE

As with hazardous waste containers, Universal Waste containers must be labeled or marked to identify their types. Label the universal waste with an accumulation start date that is the date you discarded it yourself after it was “used up,” or decided to discard it (§66273.15(c)). An example of a blank Universal Waste label is shown in Figure 3.0 below.



**FIGURE 3.0: UNIVERSAL WASTE LABEL**

Universal Wastes must be identified with one of the following markings:

- (1) Universal waste batteries (i.e., each battery), or a container in which the batteries are contained, Universal Waste--Battery(ies), or Waste Battery(ies), or Used Battery(ies).
- (2) Universal waste thermostats (i.e., each thermostat), or a container in which the thermostats are contained, Universal Waste--Mercury Thermostat(s), or Waste Mercury Thermostat(s), or Used Mercury Thermostat(s).
- (3) Each lamp or a container or package in which such lamps are contained, Universal Waste – Lamp(s), or Waste Lamp(s), or Used Lamp(s).
- (4) Each universal waste electronic device or container or pallet in or on which universal waste electronic devices are contained, Universal Waste – Electronic Device(s) or UW Electronic Device(s).



- (A) In lieu of labeling individual universal waste electronic devices or containers or pallets, a small quantity handler may accumulate universal waste electronic devices within a designated area demarcated by boundaries that are clearly labeled with one of the following phrases Universal Waste – Electronic Device(s) or UW Electronic Device(s).
  
- (5) Universal waste mercury switches and thermometers or a container in which the switches are contained, Universal Waste – Mercury Switch(es), or Waste Mercury Switch(es), or Used Mercury Switch(es).
  
- (6) Pressure or vacuum gauges
  - (A) A container in which universal waste gauges are contained, Universal Waste – Gauge(s), or Waste Mercury Gauge(s) or Used Mercury Gauge(s).
  
  - (B) A container in which mercury drained from one or more universal waste pressure or vacuum gauges is contained, Universal Waste – Drained Mercury, or Universal Waste – Mercury from Gauges.
  
- (7) Universal Waste Aerosols – A container in which universal waste aerosol cans are contained, Universal Waste – Aerosol Cans, Waste Aerosol Cans, or Used Aerosol Cans.

#### 8.4 NON-HAZARDOUS WASTE

Other than general trash, all non-hazardous waste in containers must be identified so as to separate it from general trash, and prevent it from being disposed with general trash.

If CHC were to generate non-hazardous waste, it should be disposed separately from general trash (refer to Table 1). The waste container should be labeled with its contents and the date it was first put into service. A typical non-hazardous waste label is in Figure 4.0 below.





FIGURE 4.0: NON-HAZARDOUS WASTE LABEL

## 9.0 MANIFESTING AND RECORDKEEPING

A hazardous waste manifest must accompany all hazardous waste that is shipped off-site ([EPA Form 8700-22](#)). CHC's designated EPA identification number is CAD981696347. Both the transporter and the CHC-designated employee must sign and date the manifest by hand. Contact Director, Safety & Risk Management at (909) 382-4070 for a current list of employees that have been trained and authorized to sign manifest's at Crafton Hills College. The generator (CHC) must retain one copy of the manifest and give the transporter the remaining copies of the manifest. EMT and/or CHC will submit a copy to DTSC within 30 days of shipment date. The disposal facility receiving the hazardous waste shipment should send a final copy of the manifest to the generator within 30 days of delivery and will retain a copy of each manifest for at least 3 years from the date of delivery.

CHC must keep a copy of each hazardous waste manifest signed for 3 years or until CHC receives a signed copy from the disposal facility. This signed copy must be retained by CHC as a record for at least 3 years from the date the waste was accepted by the initial transporter. CHC must also keep records of any test results, waste analyses, or other determinations made for at least 3 years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal.

All other wastes shipped off-site from CHC must be accompanied by appropriate transportation and final disposal/disposition documentation, such as bills of lading, non-hazardous waste manifests, etc. All transportation and final/disposition documentation



must be kept for a period of at least 3 years from the date the waste was accepted by the initial transporter.

All wastes at CHC must be sent to an approved waste service contractor per District policy. Currently, the approved waste service contractor for CHC is:

Emergency Management Technologies (EMT)  
Jeremy Brown – Account Manager  
1436 S. Gage Street, San Bernardino, CA 92408  
O-800-579-6834  
C-951-323-4773

## 10.0 INSPECTION REQUIREMENTS AND CHECKLISTS

### 10.1 WEEKLY INSPECTION

CHC conducts a weekly inspection via designated employees of areas used for hazardous waste storage or transfer, looking for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors ([22 CCR 66265.174](#)). Also inspected is the accumulation start date of containers and if there is any evidence of spills or leaks.

At a minimum, the inspections shall include:

- Open Containers – If drums or containers are found with missing or open bungs, lids, or rings, the missing item(s) are to be replaced immediately.
- Mislabeled Containers – Missing or incomplete labels must be corrected immediately.
- Ensure that wastes are stored in the appropriate containers that will not react with, or are otherwise incompatible with the hazardous waste that the container is storing.
- Container Damage and Contamination – The containers in all hazardous waste storage areas are to be free of dents, bulges, or other defects, and must have a clean exterior.
- Signage – Check for appropriate signage around all hazardous waste storage areas (i.e. Hazardous Waste Storage Area – Authorized Personnel Only, No Smoking).
- Spills and Leaks – Check for signs of spills and leaks, and report any spills immediately. Ensure that containers are not overfilled.
- Good Housekeeping – Spill containment for the hazardous waste storage areas must be in good condition and free of liquids. Check for proper aisle space, no breaches in containment, no excess waste, etc.
- Ensure that no incompatible wastes are stored within the same hazardous waste storage area.
- Ensure that all containers are dated, are less than 1 year from the accumulation start date on satellite accumulation hazardous waste containers,



and are less than 180 days from the accumulation start date on the 180-day accumulation containers.

Weekly inspections will be performed at the following hazardous waste storage areas (subject to change) at CHC:

- (A) Anatomy/Biology – LADM 214, CYN 2<sup>nd</sup> Floor (After Jan. 2016)
- (B) Art – OE1 101
- (C) Chemistry – CHS 233, CYN 1<sup>st</sup> Floor (After Jan. 2016)
- (D) Microbiology – MSA 108, CYN 2<sup>nd</sup> Floor (After Jan. 2016)
- (E) Physics – LADM 114, CNTL 2<sup>nd</sup> Floor (After Jan. 2016)
- (F) Theatre – PAC 101 (Backstage)
- (G) Maintenance and Operations (universal waste stored outside of the custodial supervisor's office)  
Maintenance and Operations Pad South End (waste oil stored under a shed)

## 10.2 INSPECTION FORM

The Weekly Inspection Form can be found in Appendix D.

As required, the inspection records are retained in the respective hazardous waste storage areas summarized above on-site for a minimum of three (3) years.

## 11.0 REPORTING REQUIREMENTS/REPORTING

Reporting requirements are listed in CHC's CUPA Emergency Response Plan and Procedures, see <https://sbccd.org/safetyrisk> under Safety Programs, CHC, Spill Prevention Control and Countermeasures Program. Information contained within that Plan is repeated here for reference only.

### 11.1 INCIDENT REPORT

CHC procedure as outlined in the CHC Injury and Illness Prevention Program (IIPP) states that all incidents (personal injury, property damage, environmental releases, and near misses) shall be investigated to fully analyze what happened, identify the root cause(s), and specify actions that will prevent similar incidents in the future. The Incident Investigation report should be printed and forwarded to the incident location department manager/supervisor and the Vice President of Administrative Services to be kept available for reference.



If involved in an incident involving hazardous materials/chemicals, lab technicians/employees are to:

1. Investigate the incident and complete an Accident/Incident Report (Appendix E) and attach it to the full incident report required by the CHC IIPP.
2. Submit the Accident/Incident Report to the incident location department manager/supervisor and the Vice President of Administrative Services for review and signature, within two (2) calendar days.

An Incident Review Meeting will then take place for all recordable injuries and near misses/first aids. The attendees can vary but will typically include a member(s) of the applicable laboratory, the employee involved in the injury (if possible), and department head/lab manager. The meeting will take place to review the Accident/Incident Report. It will be called by the VP of Administrative Services.

## 11.2 EMERGENCY SPILL RESPONSE

In the event of a chemical or hazardous materials spill, follow the steps below:

- 1) Provide any first aid (if necessary) to affected personnel. Liberally use eyewash station and/or safety shower to flush affected areas. Flush continuously for AT LEAST 15 minutes. Any exposure merits medical care and a large exposure to the body merits ambulatory service.
- 2) Notify the Dean, or the "administrator in charge," of the spill. If a spill is larger than 1 liter or extremely hazardous, the Campus Police should be immediately notified. Injured employees shall refer to the District's procedures for injured employees. Injured students shall be referred to the Health and Wellness Center (909) 389-3272. For emergencies, dial 911.
- 3) Evacuate students from the area.
- 4) If spilled materials exhibit flammability, eliminate ignition sources such as hot plates, Bunsen burners, etc.
- 5) Avoid all contact with spilled material. If necessary, use protective gloves, gown, goggles, and/or respirator.
- 6) Obtain supplies from Chemical Spill Clean-Up Kit located in the following areas<sup>4</sup> (subject to change):
  - a. Anatomy/Biology, LADM 214, CYN 2<sup>nd</sup> Floor (after Jan. 2016) ENPAC 20 g
  - b. Microbiology, MSA 108, CYN 2<sup>nd</sup> Floor (after Jan. 2016) ENPAC 20 g
  - c. Chemistry, CHS 233, CYN 1<sup>st</sup> Floor (after Jan. 2016) ENPAC 20 g
  - d. Overstock (Chemistry), CYN 1<sup>st</sup> Floor (after Jan. 2016) CHS 234, Fisher Scientific 6 g

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<sup>4</sup> Current spill kit locations can be confirmed by the applicable departmental administrators or SBCCD, Safety & Risk Management at (909) 382-4070.



- e. Art, OE1 101
  - f. Theatre Arts, PAC 101 shop area
  - g. Maintenance and Operations: M&O 101 grounds service bay and KHA Room 130 dry storage area.
  - h. Emergency Medical Services (EMS): OE1-107 closet in main lab and OE1-111 IV washroom.
- 7) Neutralize acids and bases.
  - 8) Contain collected materials and label container with name of contents and also as Hazardous Waste.
  - 9) Always refer to Safety Data Sheet (SDS) for special precautions or spill cleanup requirements.
  - 10) To the best of your ability and without re-entering the building, assist District Police or CHC staff in their attempt to determine that everyone has been evacuated safely.
  - 11) DO NOT return to a building unless it has been declared safe to do so by District Police or CHC Administration.

CHC's Emergency Spill Response/Clean-up Contractor is:

Emergency Management Technologies (EMT)  
Jeremy Brown – Account Manager  
1436 S. Gage Street, San Bernardino, CA 92408  
O-800-579-6834  
C-951-323-4773

**Note: The Vice President of Administrative Services, the Director of Facilities & Maintenance or the Director, Safety & Risk Management shall be the authorized designated staff to contact Emergency Management Technologies (EMT) for emergency response services following an emergency spill.**

The following information should be collected and be made available to spill response agencies and regulators as required.

- (1) Your name, location, organization, and telephone number
- (2) Name and address of the party responsible for the incident
- (3) Date and time of the incident
- (4) Location of the incident
- (5) Source and cause of the release or spill
- (6) Types of material(s) released or spilled
- (7) Quantity of materials released or spilled
- (8) Medium (e.g. land, water) affected by release or spill
- (9) Danger or threat posed by the release or spill



- (10) Number and types of injuries or fatalities (if any)
- (11) Weather conditions at the incident location
- (12) Name of the carrier or vessel, the railcar/truck number, or other identifying information
- (13) Whether an evacuation has occurred
- (14) Other agencies notified or about to be notified
- (15) Any other information that may help emergency personnel respond to the incident

### **11.3 LOCAL FIRE DEPARTMENT**

In the event that CHC's Emergency Spill Response/Clean-up contractor is unavailable, unresponsive or an authorized Administrator to contact EMT cannot be reached, the local fire department must be contacted for spill response. The City of San Bernardino Fire Department can be contacted by calling 9-1-1.

### **11.4 OFFICE OF EMERGENCY SERVICES WARNING CENTER**

Hazardous material spills must be reported to the State Office of Emergency Services, California State Warning Center at (800) 852-7550 or (916) 845-8911. A report must be made within 24 hours of a release or threatened release of toxic materials, which is an immediate threat to public health or safety and environment. The Vice President of Administrative Services and the Director, Safety & Risk Management shall be responsible for reporting to the State Office of Emergency Services.

### **11.5 NATIONAL RESPONSE SYSTEM REPORTING**

The National Response Center should be contacted for spills into the navigable waters or environment or for releases that exceed Federal Reportable Quantities (RQ) under CERCLA. The NRC can be reached at (800) 424-8802. See Section 11.9 for the reportable quantity of potential spills at CHC. The Vice President of Administrative Services and the Director, Safety & Risk Management shall be responsible for reporting to the National Response Center following this type of event.

The National Response System (NRS) is the government's mechanism for emergency response to discharges of oil and the release of chemicals into the navigable waters or environment of the United States and its territories. The National Oil and Hazardous Substances Pollution Contingency Plan set up the National Response Center for the reporting and coordination of response to pollution by oil and hazardous substances.



The National Response Center was charged with receiving reports of discharges of oil and hazardous substances. The NRC disseminates this information to the appropriate federally pre-designated On-Scene Coordinator. The criteria for reporting such incidents were set forth in 40 CFR 110 for oil discharges and 40 CFR 116 for hazardous substances discharges.

### **11.6 DTSC REPORTING**

For hazardous waste tank releases or secondary containment releases, the local office of DTSC should be contacted.

### **11.7 CAL-OSHA**

CHC shall report immediately by telephone or facsimile to the nearest District Office of the Division of OSHA (San Bernardino) any serious injury or illness, or death of an employee occurring in a place of employment or in connection with any employment. The San Bernardino Cal-OSHA office can be reached at (909) 383-4321.

Serious Injury means hospitalization for 24 hours or more for more than observation, a loss of any part of the body (any bone loss), or permanent serious disfigurement irrespective of hospitalization. "Immediately" means as soon as practically possible, but no longer than eight (8) hours after the employer knows, or with diligent inquiry would have known of the death or serious injury or illness.

### **11.8 REPORTABLE QUANTITY**

If a hazardous substance is released to the environment in an amount that equals or exceeds its reportable quantity (RQ), the release must be reported to federal authorities so that emergency response personnel can evaluate whether a response action is needed. The Superfund law specifically excludes any release that results in exposure to persons solely within a workplace from the definition of a release and, therefore, the reporting requirements do not apply.

Table 2 below is a list of materials and RQ that may be encountered at CHC. Action must be taken when the RQ is exceeded. Specific actions and agencies to contact are listed in subsections in Section 11.10. A complete list of reportable quantities can be found in the Table 1 to Appendix A contained in [49 CFR §172.101](#).







**TABLE 3.0 – REPORTABLE QUANTITIES (RQ)**

Material	RQ (lb.)
Formaldehyde	100
Methanol	5000
Sulfuric Acid	1000
Nitric Acid	1000
Hydrochloric Acid	5000
Dinitrophenol	10
Paint Waste, Liquid Paint Waste, Solid	10
Toluene	1000
Acetone	5000
Cyclohexane	1000
Potassium Hydroxide	1000
Sodium Hydroxide	1000

**11.9 OIL SPILL REPORTABLE QUANTITY (RQ)**

The Oil Pollution Prevention Regulation in [40 CFR 112](#) regulates the reporting requirement for Petroleum products. An oil spill meets the Reportable Quantity (RQ) when any of the following occurs:

- Is on navigable waters;
- Violates applicable water quality standards;
- Causes a film or "sheen" upon, or discoloration of the surface of the water or adjoining shorelines;
- Causes a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

In addition, an oil spill or discharge of at least one barrel (44 gallons) of oil over a 24-hour period should be considered as a reportable quantity. Refer to CHC’s Spill Prevention, Control, and Countermeasure (SPCC) Plan for further details. CHC’s SPCC can be found here:

[http://www.sbccd.org/Human Resources-  
Jobs/safetyrisk/Safety\\_Programs/Spill\\_Prevention\\_Control\\_and\\_Countermeasure\\_Program  
/CHC\\_Spill\\_Prevention\\_Control\\_and\\_Countermeasure\\_Program](http://www.sbccd.org/Human_Resources-Jobs/safetyrisk/Safety_Programs/Spill_Prevention_Control_and_Countermeasure_Program/CHC_Spill_Prevention_Control_and_Countermeasure_Program)



## 11.10 WRITTEN REPORTS

### 11.10.1 OFFICE OF EMERGENCY SERVICES

If required, within 30 days of an emergency in which the release exceeds the Reportable Quantity (RQ) in Section 11.8, CHC's VP of Administrative Services shall submit the Office of Emergency Services Form 304. The Form 304 should be prepared promptly and sent in draft form to the Chemical Emergency Planning and Response Commission (CEPRC) at 3650 Schriever Avenue, Mather, CA 95655. Form 304 is available at:

<http://www.calema.ca.gov/HazardousMaterials/Documents/304%20-%20Written%20Report%20Form.doc>

### 11.10.2 DTSC

Within 15 days after a spill incident in which the release exceeds the Reportable Quantity (RQ) in Section 11.8, CHC's VP of Administrative Services, with the assistance of Director, Safety & Risk Management, shall submit a written report on the incident to the Department of Toxic Substances Control and to the EPA Region IX Administrator.

The report shall include information from the list of items in "Emergency Spill Response" Section 11.2.



## 12.0 INFORMATION AND EXTERNAL REFERENCES

### Laws and Regulations on Hazardous Waste Management

#### State Laws

Hazardous Waste Control Law (HWCL)	Health and Safety Code § 25100-25249
Hazardous Substance Account Act (HSAA)	Health and Safety Code § 25340-25392
Hazardous Waste Treatment Permitting Reform Act (AB 1772)	Health and Safety Code § 25201

#### Federal Laws

Resource Conservation and Recovery Act (RCRA)	42 USC § 6901-6987
Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Superfund Amendments and Reauthorization Act (SARA)	42 USC § 9601-9675

#### State Regulations

Identification and Listing of Hazardous Waste	22 CCR §§66261-66261.126
Requirements for Generators, Generally	22 CCR §§66262.10-66262.70
Requirements for Generators, Contingency Plan	22 CCR §§66264.50-66265.56
Requirements for Generators, Personnel Training	22 CCR §66265.16
Requirements for Transporters	22 CCR §66263
Land Disposal Prohibitions	22 CCR §66268



## APPENDIX A

**TABLE I – MAXIMUM CONCENTRATION OF CONTAMINANTS FOR THE TOXICITY CHARACTERISTIC**

EPA HW No. [FN1]	Contaminant	CAS No. [FN2]	Regulatory Level (mg/L)
D004	Arsenic	7440-38-2	5.0
D005	Barium	7440-39-3	100.0
D018	Benzene	71-43-2	0.5
D006	Cadmium	7440-43-9	1.0
D019	Carbon tetrachloride	56-23-5	0.5
D020	Chlordane	57-74-9	0.03
D021	Chlorobenzene	108-90-7	100.0
D022	Chloroform	67-66-3	6.0
D007	Chromium	7440-47-3	5.0
D023	o-Cresol	95-48-7	[Use D026 level]
D024	m-Cresol	108-39-4	[Use D026 level]
D025	p-Cresol	106-44-5	[Use D026 level]
D026	Cresol		200.0
D016	2,4-D	94-75-7	10.0
D027	1,4-Dichlorobenzene	106-46-7	7.5
D028	1,2-Dichloroethane	107-06-2	0.5
D029	1,1-Dichloroethylene	75-35-4	0.7
D030	2,4-Dinitrotoluene	121-14-2	[FN3] 0.13
D012	Endrin	72-20-8	0.02
D031	Heptachlor (and its epoxide)	76-44-8	0.008
D032	Hexachlorobenzene	118-74-1	[FN3] 0.13
D033	Hexachlorobutadiene	87-68-3	0.5
D034	Hexachloroethane	67-72-1	3.0
D008	Lead	7439-92-1	5.0
D013	Lindane	58-89-9	0.4
D009	Mercury	7439-97-6	0.2
D014	Methoxychlor	72-43-5	10.0
D035	Methyl ethyl ketone	78-93-3	200.0
D036	Nitrobenzene	98-95-3	2.0
D037	Pentachlorophenol	87-86-5	100.0
D038	Pyridine	110-86-1	[FN3] 5.0
D010	Selenium	7782-49-2	1.0
D011	Silver	7440-22-4	5.0
D039	Tetrachloroethylene	127-18-4	0.7
D015	Toxaphene	8001-35-2	0.5
D040	Trichloroethylene	79-01-6	0.5
D041	2,4,5-Trichlorophenol	95-95-4	400.0
D042	2,4,6-Trichlorophenol	88-06-2	2.0
D017	2,4,5-TP (Silvex)	93-72-1	1.0
D043	Vinyl chloride	75-01-4	0.2

FN1 Hazardous waste number.

FN2 Chemical abstracts service number.

FN3 Quantitation limit is greater than calculated regulatory level and becomes the regulatory level.



## APPENDIX B

### 22 CCR 66261 Appendix X - List of Chemical Names and Common Names for Hazardous Wastes and Hazardous Materials



## APPENDIX C

22CCR 66261.24 **TABLE II** - List of Inorganic Persistent and Bioaccumulative Toxic Substances and Their Soluble Threshold Limit Concentration (STLC):

Substance	STLC mg/l	TTL Wet-Weight mg/kg
Antimony and/or antimony compounds	15	500
Arsenic and/or arsenic compounds	5.0	500
Asbestos		1.0 (as percent)
Barium and/or barium compounds	100	10,000
Beryllium and/or beryllium compounds	0.75	75
Cadmium and/or cadmium compounds	1.0	100
Chromium (VI) compounds	5{d}	500
Chromium and/or chromium (III) compounds	5	2,500
Cobalt and/or cobalt compounds	80	8,000
Copper and/or copper compounds	25	2,500
Fluoride salts	180	18,000
Lead and/or lead compounds	5.0	1,000
Mercury and/or mercury compounds	0.2	20
Molybdenum and/or molybdenum compounds	350	3,500
Nickel and/or nickel compounds	20	2,000
Selenium and/or selenium compounds	1.0	100
Silver and/or silver compounds	5	500
Thallium and/or thallium compounds	7.0	700
Vanadium and/or vanadium compounds	24	2,400
Zinc and/or zinc compounds	250	5,000

{d} If the soluble chromium, as determined by the TCLP set forth in Appendix I of chapter 18 of this division, is less than 5 mg/l, and the soluble chromium, as determined by the procedures set forth in Appendix II of chapter 11, equals or exceeds 560 mg/l and the waste is not otherwise identified as a RCRA hazardous waste pursuant to [section 66261.100](#), then the waste is a non-RCRA hazardous waste.



22CCR 66261.24 **TABLE III** -- List of Organic Persistent and Bioaccumulative Toxic Substances and Their Soluble Threshold Limit Concentration (STLC) and Total Threshold Limit Concentration (TTL) Values:

Substance	STLC mg/l	TTL Wet-Weight mg/kg
Aldrin	0.14	1.4
Chlordane	0.25	2.5
DDT, DDE, DDD	0.1	1.0
2,4-Dichlorophenoxyacetic acid	10	100
Dieldrin	0.8	8.0
Dioxin (2,3,7,8-TCDD)	0.001	0.01
Endrin	0.02	0.2
Heptachlor	0.47	4.7
Kepone	2.1	21
Lead compounds, organic	--	13
Lindane	0.4	4.0
Methoxychlor	10	100
Mirex	2.1	21
Pentachlorophenol	1.7	17
Polychlorinated biphenyls (PCBs)	5.0	50
Toxaphene	0.5	5
Trichloroethylene	204	2,040
2,4,5-Trichlorophenoxypropionic acid	1.0	10



## APPENDIX D

### Weekly Hazardous Waste Container Storage Area Inspection Checklist

Inspector Name: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Location of Inspection: \_\_\_\_\_ Total Number of Containers: \_\_\_\_\_

Inspection Item	YES	NO	Comments on Inspection Items
Containers Marked/ Labeled Properly			
Labels Legible			
Appropriate Containers for Type of Wastes			
Containers stored upright			
Wastes Separated/ Segregated Correctly			
Containers Dated Properly (i.e. accumulation dates)			
Containers Stored 180 Days or Less			
Containers Observed to be free of Leaks / Staining (i.e. not overfilled)			
Containers Observed with Closed Tops or Bungs			
Containers Observed without Dents or Corrosion			
Appropriate Aisle Space Maintained			
Containment System free of Cracks, Water or Other Liquids			
Area Free of Debris and Other Materials			
Area Free of Spills or Leaks			
Proper Signage, Waste Procedures Posted			
Emergency Response Equipment in Proper Working Order			

Describe any observations for items checked 'NO'. \_\_\_\_\_

Corrective actions required. \_\_\_\_\_

Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_

Note: State and Federal Regulations require that this inspection be performed weekly. Maintain checklist as documentation in CHC Hazardous Waste Management Plan.





## APPENDIX E

### CHC Accident/Incident Report



## APPENDIX F

### Biohazardous Waste Standard Operating Procedures



## APPENDIX F

### Biohazardous Waste Standard Operating Procedures

All personnel are responsible for following established protocols for identifying, segregating, decontaminating, and properly packaging and disposing of biohazardous waste. Biohazardous wastes generated at CHC include:

- Pharmaceutical waste (expired medicine);
- Laboratory waste that has come in contact with biohazardous agents or other biohazardous agents (i.e. pathogenic agents, body tissues and/or fluids), and disposable laboratory personal protective equipment (gloves, gowns, shoe covers, masks)
- Sharps waste are instruments used in the Anatomy department that, in a waste container, can cause punctures or cuts to solid waste handlers or the public, and include syringes, etc.

#### 1.0 BIOHAZARDOUS WASTE STORAGE

All biohazardous waste shall be contained separately from other waste at the point of generation.

- All wastes shall be decontaminated.
- All solid biohazardous waste shall be placed in approved-biohazard red disposable, leak proof bags having enough strength to prevent ripping, tearing, breaking, or bursting under normal use. The biohazardous waste bags must be securely tied and placed in secondary containment during storage and transport.
- Secondary containments must be rigid, leak resistant, have tight fitting covers, be clean, and in good repair.
- All biohazardous sharps waste shall be placed in an approved, rigid, puncture-resistant, leak resistant, biohazardous sharps container and which, when sealed cannot be opened without great difficulty. These containers are red in color and equipped with a tight-fitting lid for use during handling and transport. The primary container must be placed within a secondary leak proof, rigid container during any transport. Treated sharps shall not be mixed with the general solid waste stream at any time.
- Free flowing liquid waste must be contained in leak proof, rigid durable containers. The containers shall contain chlorine bleach (or other suitable chemical disinfectant) and shall be properly labeled. These containers shall be closed and placed within leak proof containers during handling and transport and placed within leak proof containers for handling or transport.
- All solid biohazardous waste, except for biohazardous sharps waste, must be properly stored in the CHC designated storage locations and disposed of during the quarterly waste disposal pick-ups. A request for the collection of biohazardous wastes can be made by emailing a list of the biohazardous waste and its location to Mike Strong, Vice President of Administrative Services, at [mstrong@craftonhills.edu](mailto:mstrong@craftonhills.edu) or calling (909) 389-3383. If you do not receive a timely response on your collection request, please call the District Safety & Risk Management at (909) 382-4070 and submit your request.

- Biohazardous sharps waste, must be stored in the CHC storage locations and disposed of during the quarterly waste disposal pick-ups or when approximately 2/3 full, whichever event occurs first. A request for the collection of biohazardous wastes can be made by emailing a list of the biohazardous waste and its location to Mike Strong, Vice President of Administrative Services, at [mstrong@craftonhills.edu](mailto:mstrong@craftonhills.edu) or calling (909) 389-3383. If you do not receive a timely response on your collection request, please call the District Environmental Health and Safety Administrator at (909) 382-4070 and submit your request.

## 2.0 BIOHAZARDOUS WASTE LABELING

All biohazardous waste and pathology waste containers including red bags, bottles, sharps containers and secondary containers must be labeled with the words "BIOHAZARDOUS WASTE" or with the international symbol (Figure 1) and the word "BIOHAZARD." All secondary containers of pathology waste must be labeled with the words "PATHOLOGY WASTE – FOR INCINERATION ONLY."



Figure 1: International Biohazard Symbol

## 3.0 DECONTAMINATING BIOHAZARDOUS WASTE

**Bagged Waste:** Certain types of solid waste such as bacterial cultures<sup>1</sup> can be decontaminated using steam sterilization (Autoclaving). Place autoclave label or tape on the biohazard bags to indicate that the waste has been treated. Note: Biohazardous waste with chemical waste should not be autoclaved.

**Laboratory Glass and Plastic Ware Waste:** Decontaminate waste using steam sterilization (Autoclave). Bagged waste with glassware or hard plastic pipettes should be packaged in a cardboard box and labeled "LABORATORY GLASSWARE". Bagged waste and boxes of laboratory glassware can be placed in the regular waste container for the laboratory.

**Carcasses:** Carcasses that have been fixed in phenol or other fixatives must have the solutions drained and disposed of as a hazardous chemical waste. The tissues or carcasses can then be disposed of as pathology waste.

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<sup>1</sup> Refer to CHC's Autoclave Permit for wastewater discharge limits of Waste Electrophoresis Gel generated by Molecular Biology department.



CHC's Autoclave Permit, as issued by the Department of Public Health, Environmental Health Services agency, requires recordkeeping, training, and quality control checks to be performed to assure adequate sterilization conditions. Contact the CHC, Dean of Arts and Sciences at (909) 389-3205 for further information and requirements regarding autoclave use, maintenance, training, and recordkeeping.

#### **4.0 SOLID, LIQUID, AND SHARPS BIOHAZARDOUS WASTE DISPOSAL**

A request for the collection of wastes can be made by emailing a list of the biohazardous waste and its location to Mike Strong, Vice President of Administrative Services, at [mstrong@craftonhills.edu](mailto:mstrong@craftonhills.edu) or calling (909) 389-3383.

Liquid biohazardous waste should be decontaminated by mixing 1 part chlorine bleach to 9 parts of liquid biohazardous waste, prior to placement in appropriate leak proof, rigid durable containers for eventual disposal.

CHC currently has a service agreement with biohazardous waste contractor, Emergency Management Technologies (EMT) is responsible for profiling, transporting and disposing of the biohazardous wastes generated at CHC.

Jeremy Brown – EMT Account Manager  
1436 S. Gage Street, San Bernardino, CA 92408  
O-800-579-6834  
C-951-323-4773

Service agreements which involve hazardous waste consultation, removal, transport, treatment or disposal by other vendors must be approved by Vice President of Administrative Services or the District Environmental Health & Safety Administrator first. Arrangements with outside vendors for collecting hazardous waste must not be made without contacting the Vice President of Administrative Services or the District Environmental Health & Safety Administrator.

#### **5.0 STAFF TRAINING FOR BIOHAZARDOUS WASTE HANDLING**

Employees who handle biohazardous waste in any capacity must be trained at a level equal with their duties. Training records must be kept for all employees. CHC maintains a database for all employee training records.

Biohazardous Waste training shall be a module of training within Chemical Hygiene training and be provided annually and when working with new chemicals or work practices, and applies to anyone who handles, packages, stores, transports, and/or decontaminates biohazardous waste.