

Injury and Illness Prevention Program
Bloodborne Pathogens
Biohazardous Waste
Hazardous Waste

October 2018 - Training for the
Sheriff Property & Evidence Unit

Occupational Health Program(OHP)

PURPOSE:

- Help Departments create a healthy & safe workplace for their employees
- Supply information
- Consultation
- Identify, evaluate and control environmental and occupational health hazards

*Work with Departments to
develop practical solutions to
control identified hazards*

OHP

In-line with the County's
Employee Wellness and Work
Safe Stay Healthy initiatives
to provide a holistic approach
to overall employee well being



Suzy Shamsky
Mark Middlestead
René Van Vreeswyk
James Welker
Yue Jiang

Occupational Health Program
Department of Environmental Health
County of San Diego
(858) 694-2888

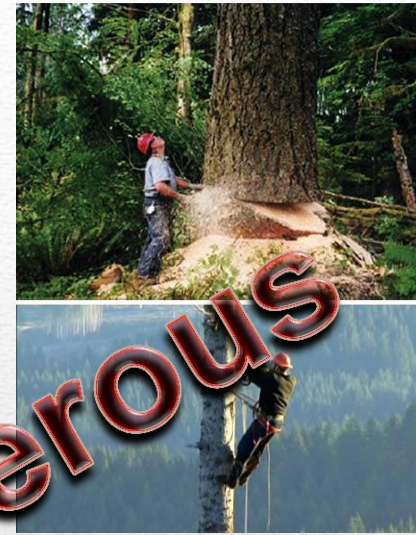
rene.vanvreeswyk@sdcounty.ca.gov
(858) 694-2170

OHP Services

- *Chemical exposure monitoring*
 - *Chemical safety consulting*
 - *Respiratory protection – fit-testing, program management, selection*
 - *Asbestos and lead management*
 - *Indoor air quality investigations*
 - *Lab hoods and medical ventilation evaluations*
 - *Noise evaluations*
 - *Ergonomic consultations*
 - *Injury and illness Departmental reviews*
 - *Environmental compliance assistance*
 - *Biological hazard control (e.g., tuberculosis, MRSA)*
 - *Employee training*
-

Injury and Illness Prevention Program (IIPP or I2P2)

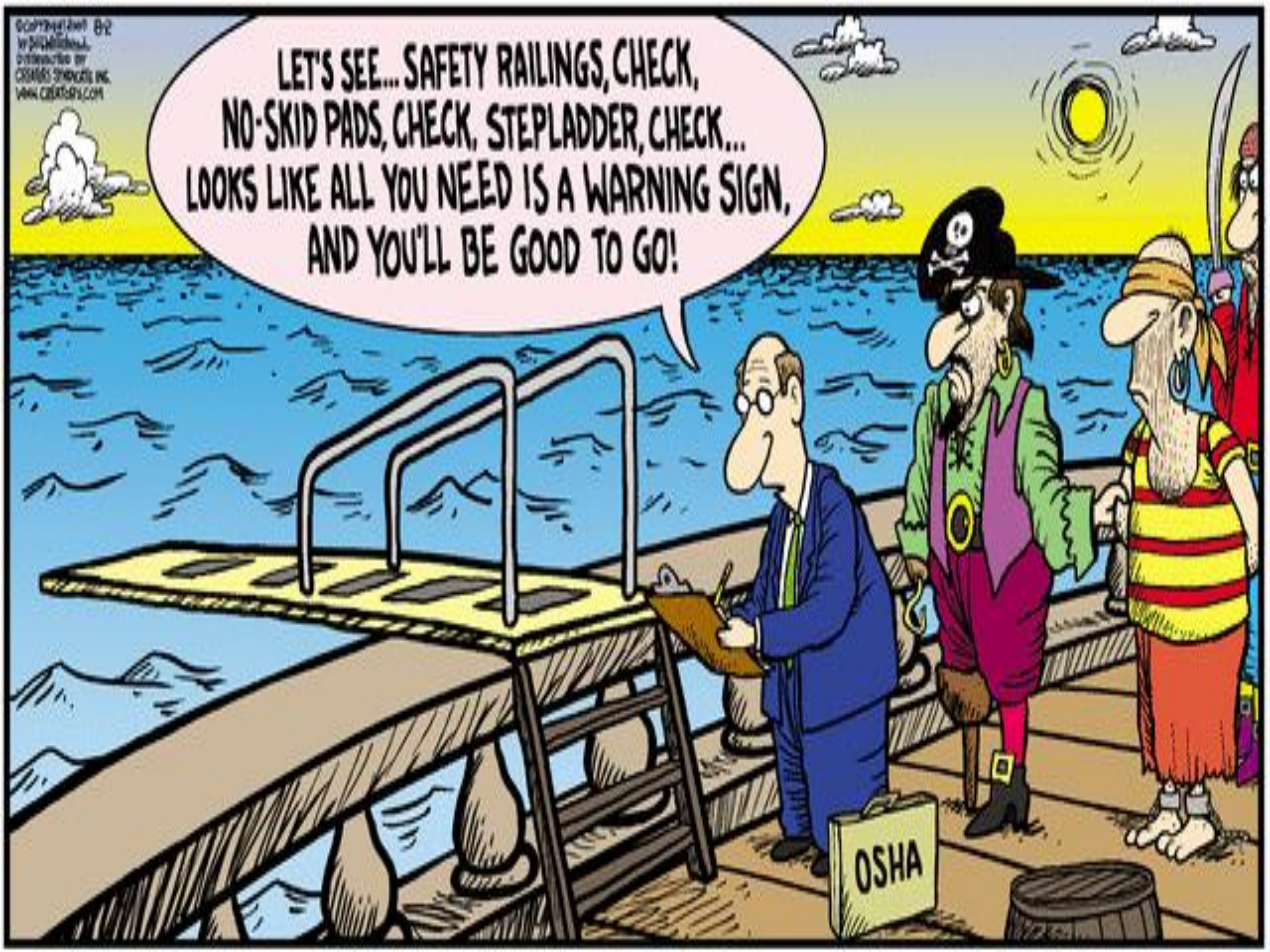
- Background
 - Summary of requirements
 - Resources
-



Work is Dangerous

Copyright © 2002
by Safety Illustrated,
a division of
CROSSBOW PRODUCTS INC.
WWW.CROSSBOW.COM

LET'S SEE... SAFETY RAILINGS, CHECK,
NO-SKID PADS, CHECK, STEPLADDER, CHECK...
LOOKS LIKE ALL YOU NEED IS A WARNING SIGN,
AND YOU'LL BE GOOD TO GO!



Workplace Hazards- Universal Hazards

All County employees face universal hazards such as:

- Ergonomics
- Office/Warehouse Safety
- Driving
- Fire



Workplace Hazards- Specialized Hazards

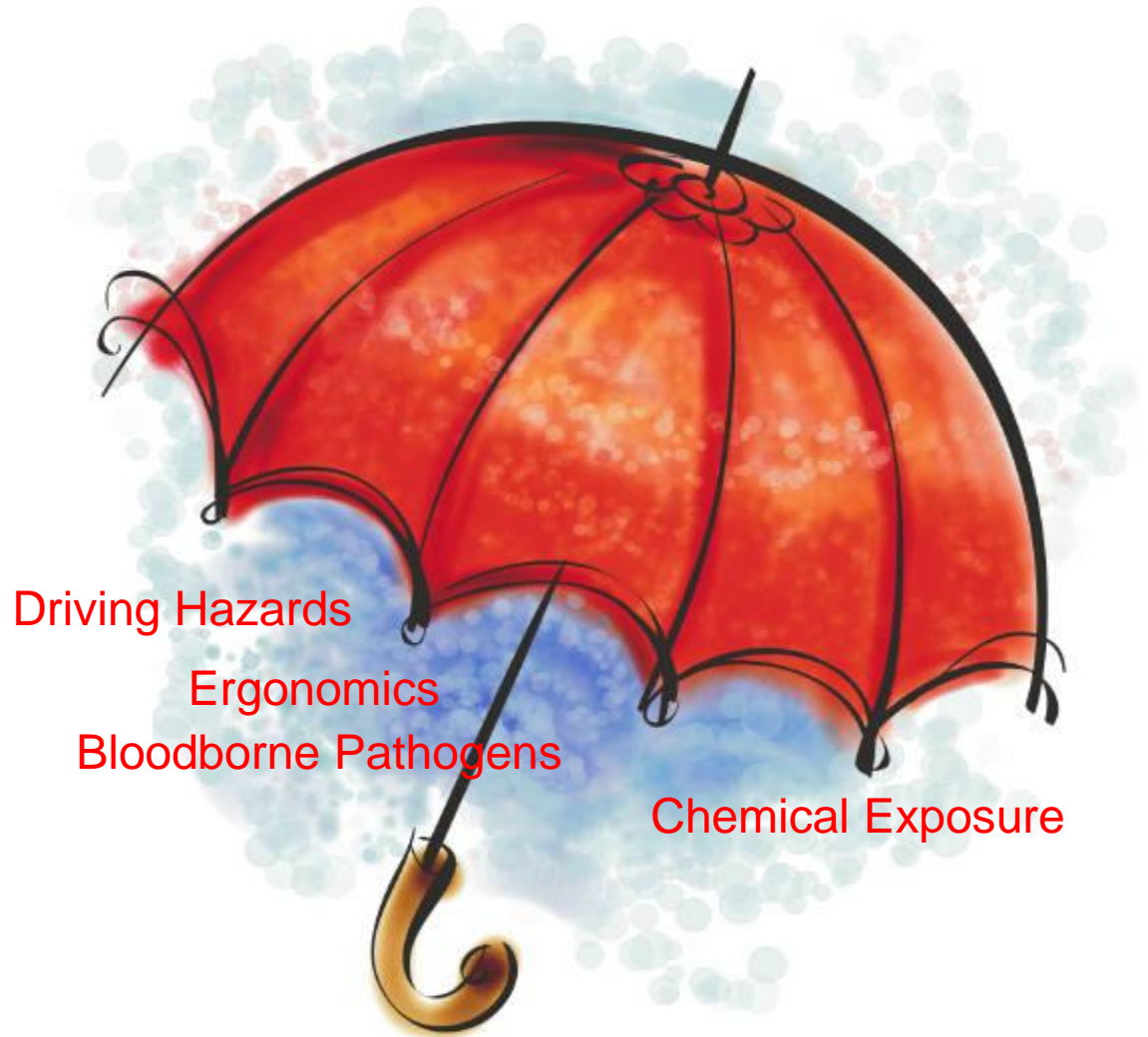
In addition, some County employees face “specialized” hazards such as:

- Exposure to chemicals
- Exposure to heat
- Exposure to biological agents
- Tools or equipment
- Traffic
- Violence



What is an IIPP?

An umbrella program, under which all employee health and safety programs are implemented.



Why does the County Need an IIPP?

- To comprehensively address employee hazards in an effort to keep employees safe and healthy.
 - The County's goal is to return employees home after work in the same condition as when they arrived at work.
-

- To provide a safe and healthful workplace for employees
- To reduce risk of disease, illness, injury and harmful exposures for County employees
- To improve employee morale and efficiency
- To reduce worker's compensation claims and costs
- To comply with the regulatory mandates (Cal/OSHA requires an IIPP, Title 8 California Code of Regulations Section 3203)

Goals of an Effective IIPP

IIPP Elements

- Management commitment and assignment of responsibilities.



Whose idea was this?

IIPP Elements

- Management commitment and assignment of responsibilities.
- A two way safety communications system between employer and employee.



- Management commitment and assignment of responsibilities.
- A two way safety communications system between employer and employee.
- A system for assuring employee compliance with safe and healthy work practices.

IIPP Elements



Aren't there ladders in this building?

IIPP Elements

- Management commitment and assignment of responsibilities.
 - A two way safety communications system between employer and employee.
 - A system for assuring employee compliance with safe and healthy work practices.
 - Scheduled inspections and evaluations of workplace hazards.
 - Procedures for correcting unsafe or unhealthy conditions.
-



- Management commitment and assignment of responsibilities.
- A two way safety communications system between employer and employee.
- A system for assuring employee compliance with safe and healthy work practices.
- Scheduled inspections and evaluations of workplace hazards.
- Procedures for correcting unsafe or unhealthy conditions.
- Accident investigations

IIPP Elements



IIPP Elements

- Management commitment and assignment of responsibilities.
 - A two way safety communications system between employer and employee.
 - A system for assuring employee compliance with safe and healthy work practices.
 - Scheduled inspections and evaluations of workplace hazards.
 - Procedures for correcting unsafe or unhealthy conditions.
 - Accident investigations
-
- Recordkeeping and documentation.



IIPP Elements

- Management commitment and assignment of responsibilities.
 - A two way safety communications system between employer and employee.
 - A system for assuring employee compliance with safe and healthy work practices.
 - Scheduled inspections and evaluations of workplace hazards.
 - Procedures for correcting unsafe or unhealthy conditions.
 - Accident investigations
 - Recordkeeping and documentation
-
- Health and safety training and instruction
-



- Injury and Illness Prevention Program (IIPP)
- Back Safety and Lifting (**Back & Lifting exercise demo**)
- Driving Program
- Emergency Action Plan



- Ergonomics
- Office Safety Program
- Security and Workplace Violence Program
- Staying Healthy: Minimizing Exposure to Colds and Flu

Universal Safety Topics

- Hazard Communication
- First Aid/CPR
- Heat Illness Prevention Program
- Personal Protective Equipment
- Respiratory Protection
- Bloodborne Pathogen Program
- Other Biohazards
- Chemical Hygiene Plan
- Laboratory Hood Operations
- Zoonotic Aerosol Transmissible Diseases
- Aerosol Transmissible Diseases
- Radioactive Materials and Radiation
- Pesticide Safety
- Asbestos Related Work
- Lead Related Work

Specialized Topics

- Hearing Conservation Program
- Hazardous Waste Operations and Emergency Response Standard
- Scaffolds and Ladders
- Confined Space
- Forklift Operations
- Lockout / Tag out
- Welding and Cutting
- Electrical Safety
- Fire Safety
- Traffic Control
- Trenching and Excavation
- Fall Protection
- Mechanized Equipment

Specialized Topics

- [IIPP Template](#) (County of San Diego)
- [Guide to Developing Your Workplace Injury and Illness Prevention Program with Checklists for Self-Inspection](#) (Cal/OSHA)
- [California Code of Regulations Title 8 Section 3203](#) (Cal/OSHA IIPP regulations)
- Handout for ladders

IIPP Resources

- Contact Judy Flores and/or Brian Nichols for details on your specific program.

**SAN DIEGO COUNTY SHERIFF'S
PROPERTY AND EVIDENCE UNIT**

**INJURY AND ILLNESS
PREVENTION PROGRAM**

California Code of Regulations, Title 8, Section 3203

PROPERTY/EVIDENCE MANAGER:
JUDY FLORES

SAFETY OFFICER:
BRIAN NICHOLS

IIPP
NOVEMBER 2012

Property and Evidence Unit's IIPP

BLOODBORNE PATHOGEN STANDARD

BLOODBORNE PATHOGEN TRAINING



What is a Bloodborne Pathogen?

Microorganisms that are carried in the blood that can cause disease in humans



- *specific exposures, protective equipment, and all elements of your Exposure Control Plan.*

Bloodborne Pathogens



Inhalation



Surface Contact



Ingestion

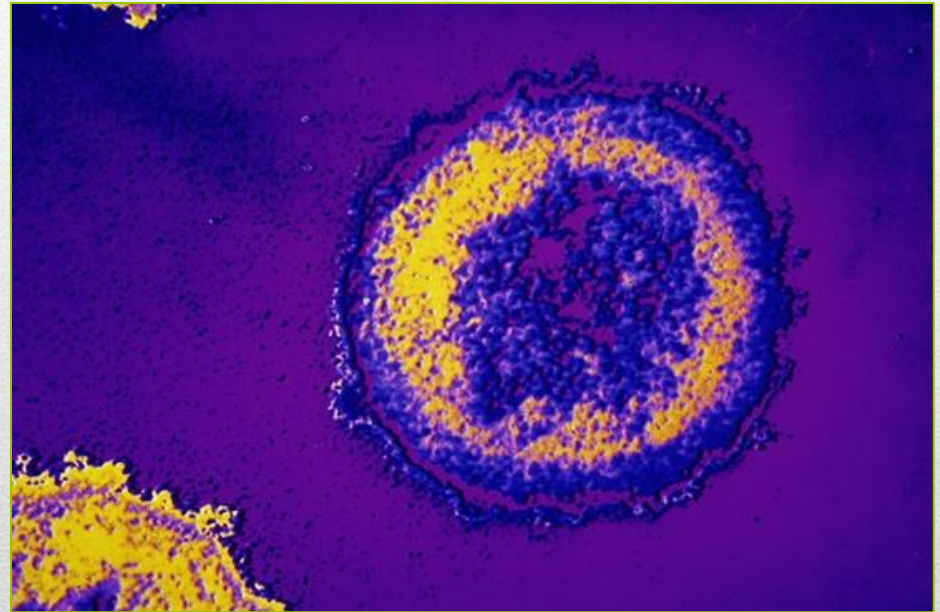


Bloodborne

Common Means of Disease Transmission

Cal/OSHA Recognized Bloodborne Pathogen Diseases

- Human Immunodeficiency Virus (HIV)
- Hepatitis B (HBV)
- Hepatitis C (HCV)

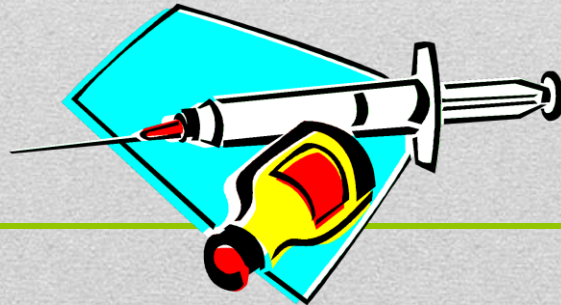


- Leads to AIDS
- Depletes the immune system
- Does not survive well outside the body
- Number of cases occupationally transmitted
- No cure, no vaccine

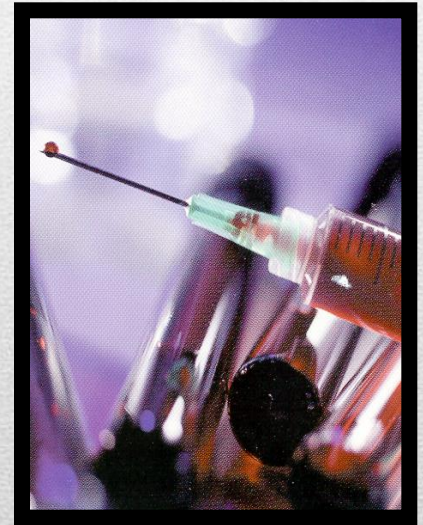
Human Immunodeficiency Virus (HIV)

Hepatitis B (HBV)

- Symptoms include: jaundice, fatigue, abdominal pain, loss of appetite, intermittent nausea , vomiting
- May lead to chronic liver disease, liver cancer, and DEATH
- Vaccination available since 1982
- HBV can survive for at least one week in **dried blood**
- Number of cases occupationally transmitted



- Hepatitis C is the most common chronic bloodborne infection in the United States
- Symptoms include: jaundice, fatigue, abdominal pain, loss of appetite, intermittent nausea, vomiting
- May lead to chronic liver disease and DEATH
- No vaccine



Hepatitis C (HCV)

Potentially Infectious Bodily Fluids

- Blood
 - Semen, vaginal secretions
 - Other body fluids
-

Occupational Routes of Entry for HIV, HepB, HepC

Contact with another person's blood or bodily fluid that may contain blood

- **Injection**
(contaminated sharps/needles)
- Mucous membranes: eyes, mouth, nose
- Non-intact skin





In order to protect employees from exposure to bloodborne pathogens, OSHA passed a standard

- Fed/OSHA's standard effective Dec 6, 1991
 - Cal/OSHA's **original** standard effective shortly after that
 - Cal/OSHA **revised** standard 1999
-

CAL/OSHA'S STANDARD

TITLE 8

CALIFORNIA CODE OF REGULATIONS
SECTION 5193

<http://www.dir.ca.gov/title8/5193.html>

- (a) Scope and Application
- (b) Definitions
- (c) Exposure Response, Prevention, and Control
- (d) Methods of Compliance
- (e) HIV, HBV, and HCV Research Laboratories and Production Facilities

CONTENTS

- (f) Hepatitis B Vaccination and Post Exposure Evaluation and Follow-Up
- (g) Communication of Hazards to Employees
- (h) Recordkeeping

CONTENTS (cont'd)

- Exposure Control Plan
- Exposure Determination
- Sharps Injury Log

(c) EXPOSURE RESPONSE PREVENTION AND CONTROL

**SAN DIEGO COUNTY SHERIFF'S
DEPARTMENT**

BLOODBORNE PATHOGEN

EXPOSURE CONTROL PLAN

for

_____Property and Evidence_____
(Department / Division / Facility)

(Preparer's Name)

_____November 2012_____
(Date of Preparation/Revision)

Exposure Determination

The following are job classifications in our establishment in which **ALL** employees have occupational exposure to bloodborne pathogens:

Job Title	Department/Location
<i>(example: Phlebotomist)</i>	<i>(example: Clinical Lab)</i>

The following are job classifications in our establishment in which **SOME** employees have occupational exposure to bloodborne pathogens:

Job Title	Department/Location	Task/Procedure
<i>(example: Housekeeper)</i>	<i>(Environmental services)</i>	<i>(Handling Regulated Waste)</i>

- Universal Precautions
- Engineering and Work Practice Controls
- Personal Protective Equipment

(d) Methods of Compliance

Ways to Minimize Exposure

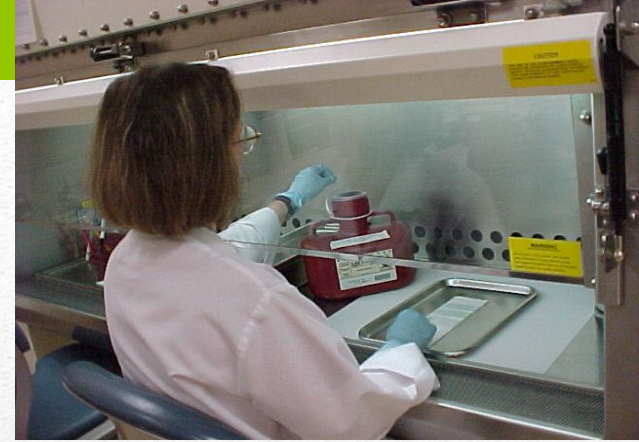
Universal Precautions

- Treat all blood and bodily fluids as if they are contaminated



Examples

- Sharps container
- Mechanical tools for clean-up
- Engineered sharps
- Hoods or biological safety cabinets



**Ways to Minimize
Exposure: Use
Engineering Controls**



- Good Housekeeping/disinfection of surfaces
- Minimize manipulation of infectious material
- Talking someone through self care (first aid)
- Hand washing
- Hand washing
- Hand washing



Ways to Minimize Exposure: Work Practice Controls

HANDWASHING

How to properly wash your hands

remove any rings or other jewelry; use warm water and wet your hands thoroughly.



use a sufficient amount of soap (1-3 ml) and lather very well.

lather soap and scrub hands well, palm to palm



scrub in between and around fingers and back of each hand.

scrub fingertips of each hand and under your nails in opposite palm.



scrub each wrist clasped in opposite hand

rinse thoroughly under running water.



with a paper towel turn off the tap or faucets

dry your hands with a single use towel or air dryer.



protect your hands from touching dirty surfaces while in the washroom and as you leave.

Other tips

- ✓ Cover cuts with bandages and wear gloves for added protection (cuts are very vulnerable to infections).
- ✓ Artificial nails and chipped nail polish have been associated with an increase in the number of bacteria on the fingernails. Be sure to clean the nails properly.
- ✓ Keep your hands away from your eyes, nose or mouth.
- ✓ Assume that contact with any human body fluids is infectious.
- ✓ Liquid soap in disposable containers is best. If using reusable containers, they should be washed and dried before refilling. If using a bar of soap, be sure to set it on a rack that allows water to drain or use small bars that can be changed frequently.

HAND SANITIZING

Hand sanitizing does not replace a proper handwashing technique. It should be used sparingly and only when soap and water are unavailable. It will be ineffective if hands are visibly soiled

1.

Place a drop of alcohol-based hand sanitizer, the size of a dime in your palm.



2.

Rub hands together, palm to palm



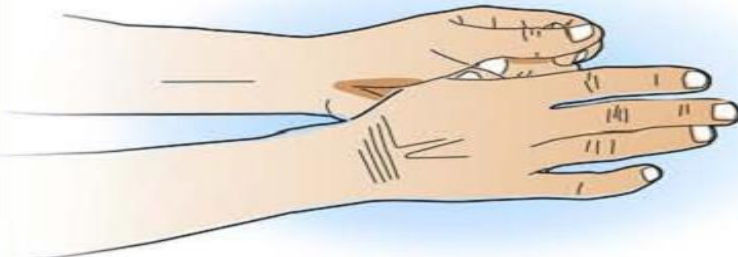
3.

Rub back of each hand with palm and interlaced fingers of the other hand.



4.

Rub around each thumb clasped in the opposite hand.



5.

Rub fingertips of each hand backward and forward in the opposite hand.



Ways to Minimize Exposure: Use Personal Protective Equipment (PPE)



Anything that is used to protect a person from exposure

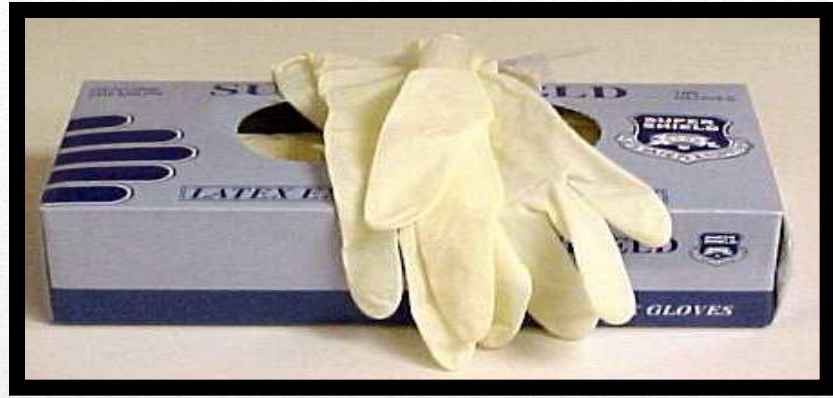
- Gloves
- Goggles, glasses, face shields
- Aprons
- Boot covers
- Respirator or barrier protection

- Always check PPE for defects or tears before using
- If PPE becomes torn or defective, remove it and get new PPE
- Remove PPE before leaving a contaminated area
- Do not reuse disposable equipment

Ways to Minimize Exposure: PPE Rules to Remember

- Disposability
- Correct Size
- Glove Material
- Latex allergy information

(<http://www.cdc.gov/niosh/docs/97-135/>)



**Ways to Minimize Exposure:
Use Gloves**

You have just cleaned up a small spill. You are wearing gloves. What is the proper order for taking off your gloves?

<http://www.bing.com/videos/search?q=youtube+glove+use+removal&FORM=VIRE6#view=detail&mid=BA151C62B140207788DBAA151C62B140207788D>

Glove Removal

1. Before removing disposable gloves, gather any contaminated materials used in providing first aid and/or clean up and hold them in one hand.



2. Strip off the glove containing the contaminated materials from the wrist, turning it inside out so the "clean" side is on the outside.



3. Place that glove in the other hand and strip off the glove on that hand, turning it inside out.



4. Dispose of the gloves/material in a regulated waste container.

5. Wash hands with soap and water



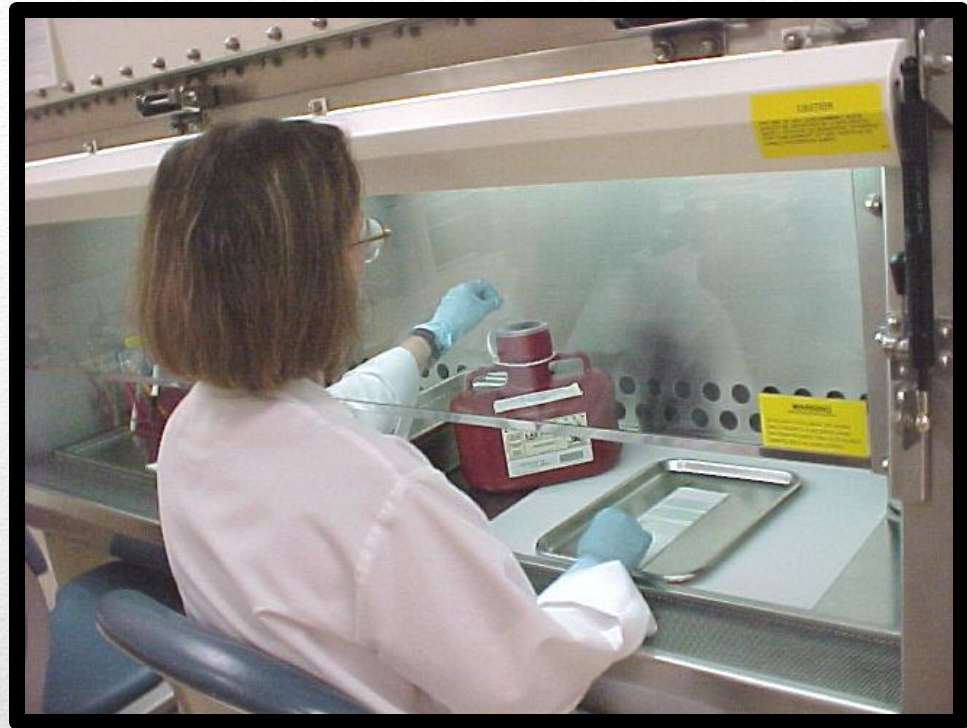
Exposure Controls

Waste Containers



- Easily accessible
- Labeled or color-coded
- Leak-proof, closeable
- Puncture-resistant for sharps
- Replaced routinely (do no overfill!)





(e) HIV, HBV, and HCV Research Laboratories and Production Facilities

- A specific incident of contact with potentially infectious bodily fluid
- Report all accidents involving blood or bodily fluids
- Post-exposure medical evaluations are offered

(f) Exposure Incident

Post-exposure Evaluation

- Confidential medical evaluation
- Document route of exposure
- Identify source individual
- Test source individuals blood (with individual's consent)
- Provide results to exposed employee



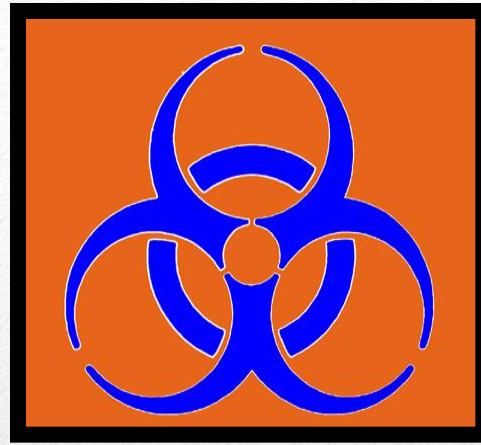
Hepatitis B Vaccination



- Strongly endorsed by medical communities
- Offered to potentially exposed employees
- Provided at no cost to employees
- If employee declines, complete declination form
- More information

<http://www.cdc.gov/hepatitis/hbv/vaccadults.htm>

- Labels
- Signs
- Information and Training



(g) Communication of Hazards to Employees



(h) Recordkeeping

Medical records:

- Hepatitis B vaccination status
- Post-exposure evaluation and follow-up results

Training records:

- Training dates
- Contents of the training
- Signature of trainer and trainee

Exposure Control Plan

OSHA Standard



MEDICAL WASTE MANAGEMENT

REGULATIONS GOVERNING MEDICAL WASTE MANAGEMENT

- California Health and Safety Code Section 117600 - 118360 (Medical Waste Management Act)
 - San Diego County Code Section 68.1201 (Title 6 Division 8 Chapter 12)
-

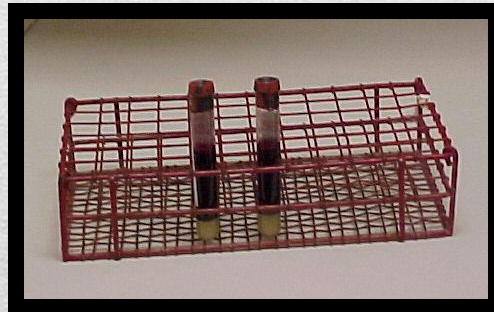


MEDICAL WASTE INCLUDES:

(1) Biohazardous Waste

(2) Medical Solid Waste

- Lab waste (specimens, stocks of infectious agents, etc.)
- Fluid blood and certain body fluids
- Sharps (needles, blades, slides)



BIOHAZARDOUS WASTE

- Specimens sent to a laboratory
- Contaminated animal carcasses
- Surgical specimens
- Other



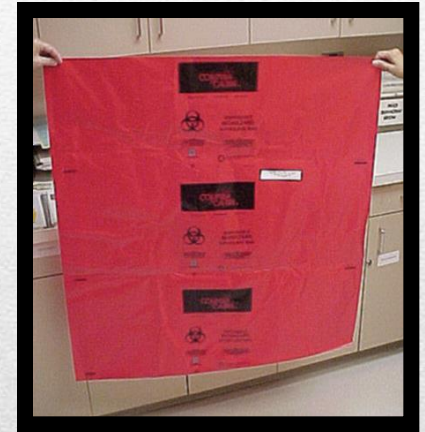
BIOHAZARDOUS WASTE (CONT'D)

- Empty specimen containers
- Bandages, etc. with non-liquid blood
- Gloves
- Decontaminated biohazardous waste
- Other

MEDICAL SOLID WASTE

BIOHAZARDOUS WASTE STORAGE CONTAINERS

- Non-sharps (e.g., sputum tubing, items from lab): red bag
- Sharps: sharps container



STORAGE CONTAINERS MUST BE:

- Labeled with producer's name, address, and phone number
- Be disposed of within certain time frames
- Be kept in a secured area with sign



- By a **registered hauler**
- For small quantity facilities (less than 20 pounds per month), can self haul to a County site for consolidation (must be approved by Department of Environmental Health)

TRANSPORTATION

TREATMENT

- **Incineration**
 - **Autoclave**
 - **Other** approved methods
 - **Discharge** to sewer for **SOME** liquid waste. Treatment may be required.
-



- **Biomedical waste management plan**
- **Waste tracking documents**
- **Autoclave records**
- **Training records**



RECORDKEEPING

MEDICAL SOLID WASTE

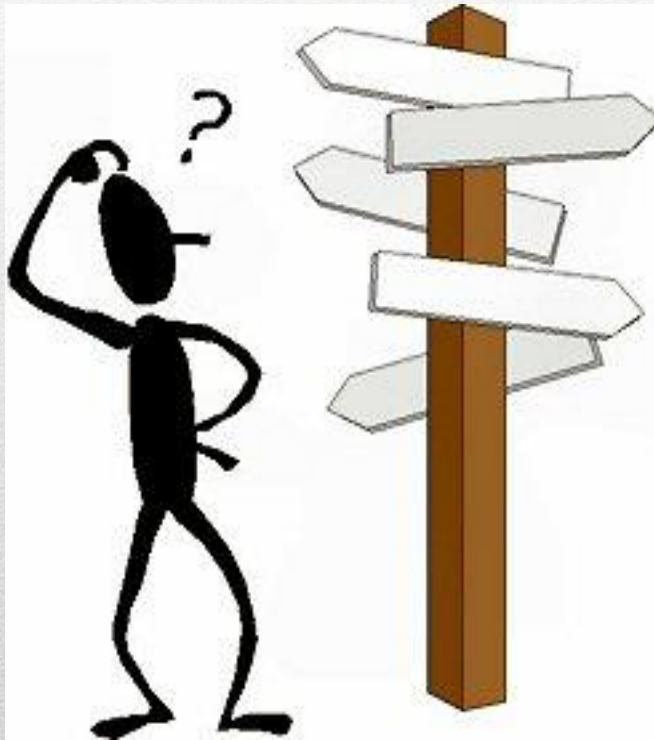
- Store in a secured area
- Locked receptacles/dumpsters





Hazardous Waste

Overview of Requirements



- The hazardous waste laws can be confusing, as there are many exemptions, exclusions, and specific criteria that must be met
-

What is Hazardous Waste?



- Hazardous Waste is identified because of its quantity, concentration, physical or chemical characteristics
- Characteristics include:
 - ignitibility
 - corrosivity
 - reactivity
 - toxicity

- **Environmental Protection Agency (EPA)**
 - State level (**Cal/EPA**): Department of Toxic Substances Control (**DTSC**) Division
 - County level: Hazardous Materials Division (**HMD**), Department of Environmental Health
- Penalties for Mismanagement of Waste
 - Regulatory Fines
 - Civil
 - Criminal

Who Regulates these Wastes?

General Hazardous Waste Requirements

- Identify which wastes are hazardous waste
 - Get an **EPA ID** Number
-

General Hazardous Waste Requirements

- Store properly
 - Transport using a hazardous waste hauler
 - Keep records of the transportation off site
 - Ensure employees are trained
-

- Store in a designated location and not with incompatibles
- Store in non leaking DOT approved containers



Hazardous Waste Storage

- Store in a designated location and not with incompatibles
- Store in non leaking DOT approved containers
- Keep closed



Hazardous Waste Storage

- Store in a **designated location** and not with incompatibles
- Store in **non-leaking DOT approved containers**
- Keep **closed**
- **Label** as hazardous waste

HAZARDOUS WASTE

STATE & FEDERAL LAW PROHIBITS IMPROPER DISPOSAL
 IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY
 AUTHORITY OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY
 OR THE CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL

GENERATOR INFORMATION:

NAME _____
 ADDRESS _____ PHONE _____
 CITY _____ STATE _____ ZIP _____
 EPA / MANIFEST ID NO. / DOCUMENT NO. _____ / _____
 EPA WASTE NO. _____ CA WASTE NO. _____ ACCUMULATION START DATE _____
 CONTENTS, COMPOSITION: _____

PHYSICAL STATE: _____ HAZARDOUS PROPERTIES: FLAMMABLE TOXIC
 SOLID LIQUID | CORROSIVE REACTIVITY OTHER _____

D.O.T. PROPER SHIPPING NAME AND UN OR NA NO. WITH PREFIX

HANDLE WITH CARE!
 CONTAINS HAZARDOUS OR TOXIC WASTES

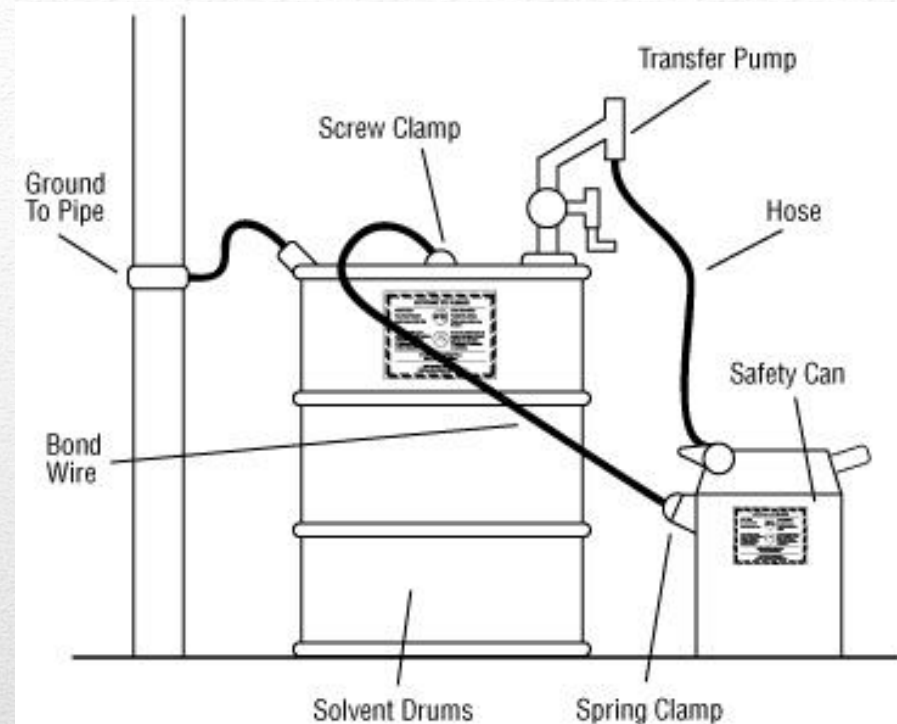
CP-3

Hazardous Waste Storage

- Store in a designated location and not with incompatibles
- Store in non leaking DOT approved containers
- Keep closed
- Label as hazardous waste
- Store within the storage time frame
 - The Property & Evidence Unit is considered a small quantity generator and can store hazardous waste up to a year on site.

Hazardous Waste Storage

- Store in a designated location and not with incompatibles
- Store in non-leaking DOT approved containers
- Keep closed
- Label as hazardous waste
- Store within the storage time frame
- Ground/bond and 50 feet from property line (if ignitable)



Hazardous Waste Storage

- On a **weekly** basis all hazardous waste accumulation areas must be inspected for spills and container condition:

- Leaking?
- Damage?
- Rust?
- Bulging?
- Dimpling?
- Oozing?
- Crystals?



Hazardous Waste Storage

- Compile a list of the type and amount of waste requiring disposal
- Contact a registered hazardous waste hauler
- Ensure waste is in DOT approved containers and is properly labeled
- Prepare (or review) the disposal documentation

Hazardous Waste Disposal

- A hazardous waste **manifest** is required for most hazardous waste
- All disposal documentation must be kept for **3 years** in the binder

Disposal Documentation

- Check for the following:
- Site's EPA ID #/phone number
- Mailing address listed as DGS COC address
- Transported listed with EPA ID #
- Designated facility listed with EPA ID #
- Correct quantity of waste listed
- Generator certification is signed by on site contact person (County staff)

Please print or type. (Form designed for use on site (12-pitch) typewriter) 1 1 1 1 1 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST 1. Generator ID Number 2. Page 1 of 3. Emergency Response Phone 3. Manifest Tracking Number

4. Generator's Name and Mailing Address 5. Generator's Site Address (if different from mailing address)

6. Generator's Phone
 6. Transporter 1 Company Name U.S. EPA ID Number
 7. Transporter 2 Company Name U.S. EPA ID Number
 8. Designated Facility Name and Site Address U.S. EPA ID Number

9. Facility's Phone

No. and Picking Group (if any)	10. Containers		11. Total Quantity	12. Line W/LAN	13. Waste Codes
	No.	Type			
1.					
2.					
3.					
4.					

14. Special Handling Instructions and Additional Information

15. GENERATOR/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/consignee, and are in full accord with all applicable Federal, State and local government regulations. I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste characterization statement identified in 40 CFR 261.27(a) (if any) is a large quantity generator or (b) (if any) is a small quantity generator) is true.
 Generator's/Officer's Printed Name Signature Month Day Year

16. International Shipments
 Import to U.S. Export from U.S. Port of entry Date leaving U.S. 17. Transporter Acknowledgment of Receipt of Materials
 Transporter 1 Printed Name Signature Month Day Year
 Transporter 2 Printed Name Signature Month Day Year

18. Discrepancy
 18A. Discrepancy Indication Space Quantity Type Residue Partial Rejection Full Rejection
 18B. Alternate Facility (or Generator) Manifest Reference Number U.S. EPA ID Number
 Facility's Phone
 18C. Signature of Alternate Facility (or Receiver) Signature Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, storage, and recycling systems)
 20. Designated Facility, Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18B
 Facility's Name Signature Month Day Year

EPA Form 8700-02 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Hazardous Waste Manifest



Manifest Requirements

- Examples
 - Fluorescent tubes
 - Batteries
 - Electronic devices
 - Non empty aerosol spray cans
- Must be labeled as universal waste and have accumulation start date
- Keep records of transport off site

Universal Waste
