University of San Francisco
Bloodborne Pathogen Program
Exposure Control Plan

Environmental Safety

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Sec 1.0.0 Purpose

Occupational exposure to **blood** and **other potentially infectious materials (OPIM)** may result in the transmission of **bloodborne pathogens** leading to disease or death. The purpose of the **Bloodborne Pathogen Standard** is to reduce the risk of occupational exposure to these pathogens.

The University of San Francisco's Bloodborne Pathogen Program will be administered by the **Environmental Safety Manager** (Environmental Safety Office) and the **Manager of Benefits and Compensation** (Human Resources).

The Dean or Director will designate **Exposure Control Officers** for each of the areas where a potential for exposure has been identified. It is the responsibility of these **Exposure Control Officers** to comply with the guidelines of this program, conduct appropriate inspections, and collect and file the necessary paperwork. Failure to comply with the guidelines of this program may compel the University to stop the activities that create the exposure, as well as begin disciplinary procedures against the individual(s) involved. The diagram on the facing page illustrates the flow of responsibility for the Bloodborne Pathogen Program. Exposure Control Officers are designated for each of the six areas identified on the Flowchart of Responsibilities (shown on the next page).

The **Bloodborne Pathogen Program** covers all employees who could be **"reasonably anticipated"** to have contact with **blood** or **OPIM** while performing their job. According to the standard, this program must be applied to employees without regard to the frequency at which such exposures may occur.

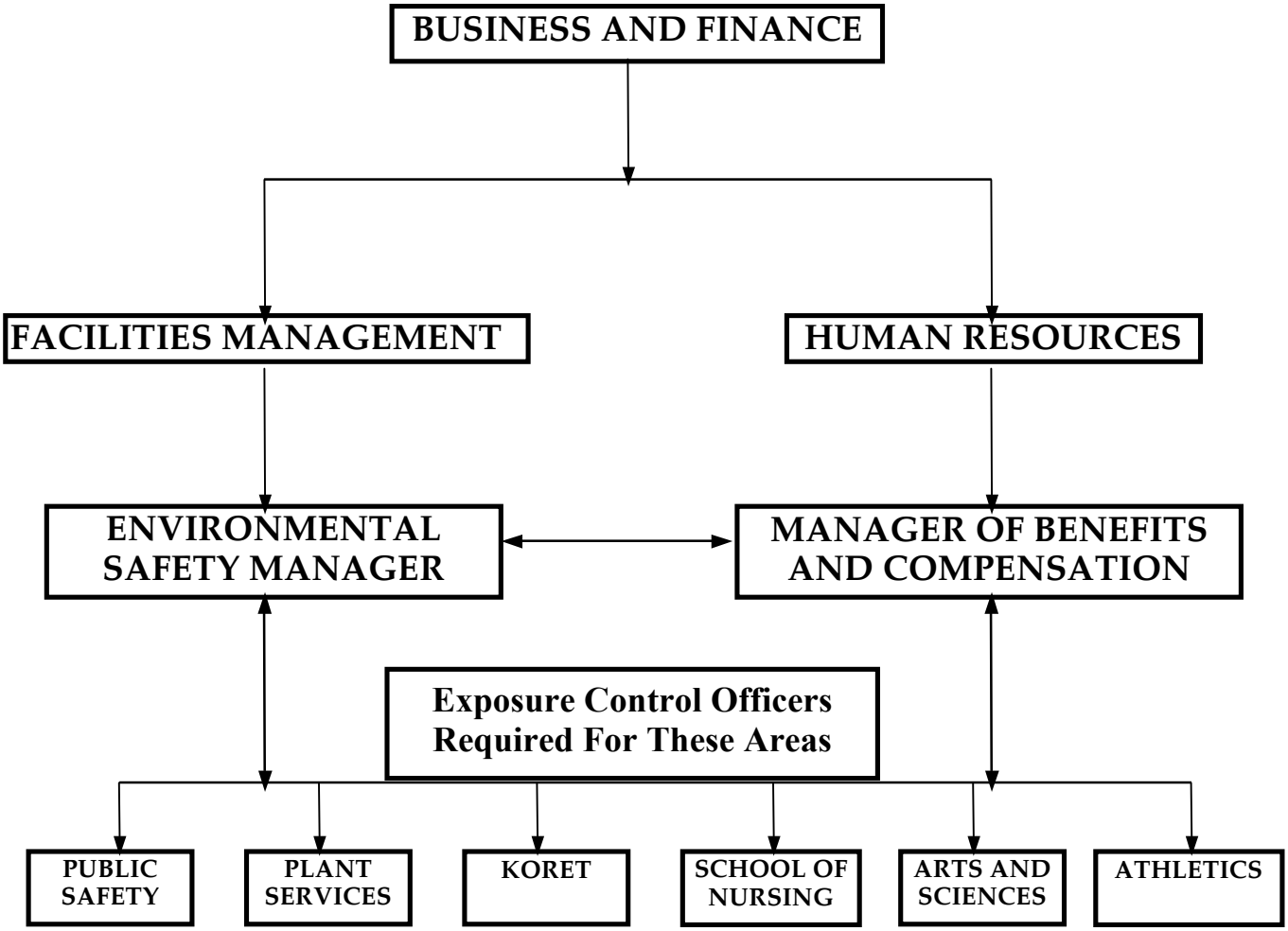
OPIM includes:

- Semen

- Vaginal secretions
- Cerebrospinal fluid
- Synovial fluid
- Pleural fluid
- Pericardial fluid
- Peritoneal fluid
- Amniotic fluid
- Saliva in dental procedures
- Any body fluid visibly contaminated with **blood**
- All body fluids where it is difficult or impossible to differentiate between body fluids
- Any unfixed tissue or organ other than intact skin from a human (living or dead)
- Cells or tissue cultures containing the human immunodeficiency virus (HIV)
- Culture medium or other solutions containing, organ cultures, **blood**, organs or other tissues from experimental animals infected with HIV or HBV

University of San Francisco Bloodborne Pathogen Program

Flowchart of Responsibilities



*** ABLE BUILDING MAINTENANCE COMPANY**

* ABLE is an independent contractor covered under its own Bloodborne Pathogen program.

The purpose of this exposure control plan is to:

1. **Eliminate or minimize employee occupational exposure to blood or certain other body fluids.**
2. **Comply with the Cal/OSHA Bloodborne Pathogen Standard, CCR-T8 5193.**
3. **Establish a Written Exposure Determination.**

Sec 2.0.0 Exposure Determination

Cal/OSHA requires employers to perform an exposure review to determine the job classifications in which all employees may have exposure to **blood** or **OPIM** (indicated in bold type), and the job classifications in which some employees may be exposed to **blood** or **OPIM** (indicated in normal type). Exposure determination is made without regard to the use of **Personal Protective Equipment (PPE)** (i.e. employees are considered exposed even if they wear **PPE**). At the University of San Francisco, the following job classifications are in this category:

Sec 2.1.0 Exposure Job Classifications

- School of Nursing
  1) Faculty
  2) Teaching Assistants
  3) Nursing students

- Public Safety
  1) Field officers

- Koret Health and Recreation Center
  1) Life guards

- Arts and Sciences
  1) Researchers experimenting with human **blood** or **OPIM**
  2) Teaching Assistants for the Biology and Chemistry Departments

- Facilities Management
  1) Environmental Safety Staff
  2) Recycler/Laborer

- Athletics
  1) Athletic Trainer
  2) Individuals Responsible for Laundry

Cal/OSHA requires a listing of occupational procedures in which employees may be exposed to **blood** or **OPIM**. The requirement for listing the procedures facilitates an understanding of which employees have occupational exposure to these infectious materials. The job classifications and associated tasks (Job Duties Exposure Profile) for these categories are as follows:

Sec 2.2.0 Job Duties Exposure Profile

JOB CLASSIFICATION	TASK / PROCEDURE
Nursing Faculty	Demonstrating techniques involving **blood** or **OPIM**.
Nursing Teaching Asst.	Demonstrating techniques involving **blood** or **OPIM**.
Nursing Students	Practicing techniques in lab and in a hospital setting involving **blood** or **OPIM**.
Public Safety Officers	Responding to emergency situations involving **blood** or **OPIM**.
Koret Life Guards	Responding to emergency situations involving **blood** or **OPIM**.
Science Researchers	Experimenting with **blood** or **OPIM**.
Teaching Assistants	Demonstrating experiments involving **blood** or **OPIM**.
Environmental Safety Staff	Collecting contaminated sharps and **OPIM** for disposal.
Facilities Management Recycler	Collecting recycled materials on campus with potential exposure to needle sticks, cuts and parenteral exposure to **blood** and **OPIM**.
Athletic Trainer	Assist in control of cuts, scrapes, bloody noses, etc., resulting from athletic competitions.
Athletics Equipment Manager	Potential contact with bloodied uniforms and sharp objects left in clothing.
Landscaper/Laborer	Collecting campus debris with potential exposure to needle sticks, cuts and parenteral exposure to **blood** and **OPIM**.

Sec 3.0.0 Implementation Methodology

Cal/OSHA requires that the **Exposure Control Plan** include the methods of implementation for the various requirements of the standard. The following complies with this requirement.

Sec 3.1.0 Compliance Methods

Universal precautions will be observed at this facility in order to prevent contact with **blood** or **OPIM**. All **blood** will be considered infectious regardless of the perceived status of the source individual. Engineering and work practice controls will be used to eliminate or minimize exposure to employees at this facility. Where occupational exposure remains after implementation of these controls, work practice training and personal protective equipment shall also be used. The identified occupations with potential exposure range from those that work with **blood** and **OPIM**, having a relatively high exposure potential, to those who work as custodians and recycling collectors with a lower exposure potential. Because both the job activity and exposure potential vary greatly among occupations, the ultimate determination of what controls to employ rests with the **Exposure Control Officer** for that division.

The School of Nursing and other researchers in the sciences working with **blood** and **OPIM** will wear appropriate gloves (e.g. nitrile, latex, etc.) and practice universal precautions. Puncture resistant sharps containers will be used to collect needles and other contaminated sharps. Contaminated waste materials (blood soaked toweling, cotton swabs, gloves etc.) will be collected in biohazard bags and sealed. Contact Environmental Safety at x6883 for prompt collection and disposal. This waste will be disposed of through a recognized biomedical waste disposal company.

All equipment that comes in contact with **blood** or **OPIM** will be labeled with the standard biohazard label. Personnel from Environmental Safety, when collecting contaminated sharps waste, will wear puncture resistant gloves and place sharps containers in a puncture resistant secondary container with biohazard

labeling. Recycling personnel will wear puncture resistant gloves. Lifeguards and Public Safety personnel are provided with latex or nitrile gloves gloves and a CPR face shield with one-way valve.

Those controls determined necessary by the **Exposure Control Officer** would be examined and maintained or replaced on a regular schedule. The responsibility for this review rests with the **Exposure Control Officer** selected for each division. These controls should be reviewed at least quarterly and the review must be documented and filed with this written program. Each division should review its exposure potential and adopt a review schedule appropriately.

Handwashing facilities shall be made available to employees who are exposed to **blood** or **OPIM**. Cal/OSHA requires that these facilities are readily accessible after an exposure, and if handwashing facilities are not accessible the employer is required to provide either an antiseptic cleanser in conjunction with clean cloth/paper towels, or antiseptic towelettes. If these alternatives are used, then the hands are to be washed with soap and running water as soon as is feasible. If the **Exposure Control Officer** determines that such an alternative provision is necessary then the location, task, and responsibilities should be listed in the exposure review to ensure maintenance and accessibility of these alternatives.

The **Exposure Control Officer** shall ensure that after the removal of personal protective gloves, employees wash hands and any other potentially contaminated skin area immediately or as soon as feasible with soap and water.

Sec 3.2.0 Contaminated Needles and Sharps

Contaminated needles and other contaminated sharps shall not be sheared or purposely broken. This action can create infectious aerosols. Cal/OSHA allows recapping, bending or removal of contaminated needles only when the medical procedure requires it and no alternative is feasible. If such action is required then it must be done by the use of a mechanical device or a one-handed technique. At the University, bending, recapping, or removal is only permitted by documented consent of the **Exposure Control Officer.**

Sec 3.3.0 Containers for Sharps

Contaminated sharps are to be placed immediately, or as soon as possible after use, into appropriate containers. At the University the containers for sharps should be puncture resistant, labeled with a biohazard label and leak proof. Responsibility for the number, location and types of biohazard containers for sharps rests with the **Exposure Control Officer.** This individual must determine the frequency at which such containers require replacement. This frequency will be dictated by the rate at which such containers reach 75% capacity and are closed/sealed.

Sec 3.4.0 Work Area Restrictions

In work areas where there is a reasonable likelihood of exposure to **blood** or **OPIM**, employees are **not** to eat, drink, apply cosmetics or lip balm, smoke, or handle contact lenses. Food and beverages are not to be kept in refrigerators, freezers, shelves, cabinets, or on counter or bench tops where **blood** or **OPIM** are present.

Mouth pipetting/suctioning of **blood** or **OPIM** is prohibited.

All procedures will be conducted in a manner that will minimize splashing, spraying, splattering, and the generation of droplets of **blood** or **OPIM**. An example of a mechanical control is a cover on centrifuges. It is the responsibility of the **Exposure Control Officer** to determine and document what work area restrictions are required and will be employed.

Sec 3.5.0 Specimens

Specimens of **blood** or **OPIM** will be placed in a container that prevents leakage during the collection, handling, processing, storage, transport, or shipping of the specimens.

The container used for this purpose will be properly labeled or color-coded and closed prior to storage, transport or shipping. The law provides an exemption from the labeling/color coding requirement of the standard for specimens provided the facility uses **universal precautions** in the handling of all specimens and the containers are recognizable as containing such specimens. This exemption applies only while the specimens remain in the facility. While we have chosen to use **universal precautions** at the University to avoid miscommunication, we will adhere to the labeling requirement for added safety. Any specimens that could puncture a primary container will be placed within a secondary container that is puncture resistant.

If outside contamination of the primary container occurs, the primary container shall be placed within a secondary container. Secondary containers shall meet or exceed all the requirements for primary containers.

Sec 3.6.0 Contaminated Equipment

The **Exposure Control Officer** is responsible for ensuring that equipment which has become contaminated with **blood** or **OPIM** be decontaminated as necessary, unless decontamination is not feasible. In such a case the equipment must be clearly and visibly labeled with a biohazard label.

Sec 3.7.0 Personal Protective Equipment (PPE)

Sec 3.7.1 PPE Provision:

The **Manager of Benefits and Compensation** is responsible to ensure that all personal protective equipment used at this facility will be provided without cost to employees. Personal protective equipment will be chosen based on the anticipated exposure to **blood** or **OPIM**. The protective equipment will be considered appropriate only if it does not permit **OPIM** to pass through or reach the employees' clothing, skin, eyes, mouth, or other mucous membranes under the normal conditions of use and for the duration of time which the protective equipment will be used. It is the responsibility of the **Exposure Control Officer** to determine what types of protective clothing and other equipment is necessary based on the evaluation of the potential route and duration of exposure.

Sec 3.7.2 PPE Use:

The **Exposure Control Officer** shall ensure that the employee uses appropriate **PPE**. However, if in the employee's professional judgement PPE use would hinder the delivery of healthcare or pose an increased hazard to the safety of the worker or co-worker, the use of PPE can be suspended. When the employee or supervisor makes this judgement, the circumstances shall be investigated and documented by the **Exposure Control Officer** in order to support this decision and determine whether changes can be instituted to prevent such occurrences in the future.

Sec 3.7.3 PPE Accessibility:

The **Exposure Control Officer**, with assistance from the **Manager of Benefits and Compensation** and the **Environmental Safety Manager**, shall ensure that appropriate **PPE** is readily accessible at the work site and is issued without cost to employees. Hypoallergenic gloves, glove liners, powderless gloves, or other

similar alternatives shall be readily accessible to those employees who are allergic to the equipment normally provided.

Sec 3.7.4 PPE Cleaning, Laundering and Disposal:

All **PPE** will be cleaned, laundered, disposed of, and/or replaced by the employer at no cost to the employees. All garments that are penetrated by **blood** shall be removed immediately or as soon as feasible. All **PPE** will be removed prior to leaving the work area. When **PPE** is removed, it shall be placed in an appropriately designated area or container for storage, washing, decontamination, or disposal.

Sec 3.7.5 Gloves:

Gloves shall be worn where it is reasonably anticipated that employees will have hand contact with **blood**, non-intact skin, mucous membranes, or **OPIM**, when performing vascular access procedures and when handling or touching contaminated items or surfaces.

Disposable gloves used at this facility are not to be washed or decontaminated for re-use. They are to be replaced when they become contaminated, torn, punctured, or when their ability to function as a barrier is compromised. Utility gloves may be decontaminated for re-use provided that the integrity of the gloves is not compromised. Utility gloves will be discarded if they are cracked, peeling, torn, punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised.

Sec 3.7.6 Eye and Face Protection:

Masks, in combination with eye protection devices such as goggles or glasses with solid side shield or chin length face shields, are required to be worn whenever splashes, spray splatter, or droplets of **blood** or **OPIM** may be generated and eye, nose, or mouth contamination can reasonably be anticipated. It is the responsibility of the **Exposure Control Officer** to determine if job activities create this kind of exposure. If such exposure exists effort should be made to redesign the job activity to eliminate this exposure. If the exposure can not be eliminated then adequate personal protective equipment must be provided with proper training on its use.

Sec 3.7.7 Additional Protection:

Additional protective clothing (such as lab coats, gowns, aprons, clinic jackets, or similar outer garments) shall be worn when gross contamination can reasonably be anticipated (such as treatment of an injury).

Sec 3.8.0 Housekeeping

The type of material used for decontamination is dependent upon the type and extent of contamination expected. It is the responsibility of the **Exposure Control Officer** to determine what is appropriate as well as the frequency for decontamination. Typically, strong detergents such as Alconox, disinfecting solutions such as Amphyll, and dilute bleach solutions (10%) are used.

Exposure Control Officers must complete a schedule similar to the table shown below for the areas under their supervision and maintain this on file with the program. This schedule should be reevaluated at least quarterly.

Area	Schedule	Procedure & cleaner / sanitizer used

All contaminated work surfaces will be decontaminated after completion of procedures and immediately after any spill of **blood** or **OPIM** as well as at the end of the work shift if the surface may have become contaminated since the last cleaning. Please see section on spill response for specific instructions on spill response procedures. Protective coverings on work surfaces may be used but must be changed at least as often as the comparably uncovered work area would be disinfected. They should be changed immediately if the covering becomes contaminated with **blood** or **OPIM.**

All bins, pails, cans, and similar receptacles that may be contaminated shall be inspected and decontaminated on a regularly scheduled basis. The frequency of such inspections is to be determined by the **Exposure Control Officer** but should occur at least quarterly.

All broken glassware that may be contaminated will not be cleaned up manually. A mechanical means (brush, dustpan, tongs or forceps) shall be used. See spill response procedures.

Sec 3.9.0 Regulated Waste Disposal

Sec 3.9.1 Disposable Sharps:

Contaminated sharps shall be discarded immediately or as soon as feasible in containers that can be closed and are puncture resistant, leak-proof on sides and bottom, and properly labeled. See Sec 3.17.0 of this document for procedures for spill response and disposal for more information.

During use, containers for contaminated sharps shall be easily accessible to personnel and located as close as is feasible to the immediate area where sharps are used or can be reasonably anticipated to be found (e.g. lab benches, classrooms etc.)

The containers shall be maintained upright throughout use, replaced routinely and **not** be allowed to overfill. Containers must be capped at 75% capacity and disposed of within 7 days unless placed in refrigeration. Please contact Environmental Safety at x6464 to arrange for pickup and disposal.

When moving sharps containers from the area of use, the containers shall be closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

The container shall be placed in a secondary container if leakage of the primary container is possible. The second container shall also have a lid that can be closed, constructed to contain all contents and prevent leakage during handling, storage and transport, or shipping. The second container shall be properly labeled to identify its contents.

Reusable containers shall not be opened, emptied, or cleaned manually or manipulated in any other manner that would expose employees to the risk of percutaneous injury. To further minimize risk of an exposure incident, it is the policy of this institution not to employ reusable containers.

Sec 3.9.2 Other Regulated Biohazardous Waste:

Other regulated biohazardous waste shall be placed in containers that are collapsible and constructed to contain all contents and prevent leakage of fluids during handling, storage, transportation, or shipping. These containers shall be appropriately labeled as biohazardous waste.

The biohazardous waste bags or containers must be labeled using the proper color-coding (i.e. red) and closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

Note: Disposal of all regulated waste shall be in accordance with applicable local, state, and federal regulations. It is illegal to discard such waste, whether labeled or not, in the trash.

Sec 3.10.0 Laundry Procedures

Laundry contaminated with **blood** or **OPIM** will be handled as little as possible and with a minimum of agitation. Such laundry will be placed and transported in appropriate and color-coded containers at the location where it was used. Such laundry will not be sorted or rinsed in the area of use. Employees will not be allowed to wash contaminated uniforms in their private homes or at public Laundromat facilities.

Note: While this facility employs universal precautions, because of the variety of activities at the University, contaminated materials, containers and equipment will be suitably marked. Laundry assumed to be contaminated would be placed in appropriately marked containers and treated as infectious. This includes work uniforms whose maintenance and cleaning is contracted out (e.g. Facilities Management). Any time such a uniform becomes contaminated with **blood** or **OPIM** it is to be placed in a suitably marked container and the vendor notified as to the hazard.

Sec 3.11.0 Hepatitis B Vaccine and Post Exposure Evaluation and Follow-Up

Sec 3.11.1 General:

The **University of San Francisco** shall make available the **Hepatitis B vaccine** and vaccination series to all employees* who have occupational exposure, and post exposure follow-up to employees who have had an exposure incident.

The **Manager of Benefits and Compensation** shall ensure that all medical evaluations and procedures including the Hepatitis B vaccine and vaccination series and post exposure follow-up, including prophylaxis are:

- Made available at no cost to the employees.
- Made available to the employee at a reasonable time and place.
- Performed by or under the supervision of a licensed physician or by or under the supervision of another licensed healthcare professional.
- Provided according to the recommendations of the US. Public Health Service.

An accredited laboratory, at no cost to the employee, shall conduct all laboratory tests.

* **Designated First Aid responders who respond only as a collateral duty and are not health care or public safety personnel will only receive a vaccination following a response to an incident where blood/OPIM is present.**

Sec 3.11.2 Hepatitis B Vaccination:

The **Manager of Benefits and Compensation** will manage the **Hepatitis B vaccination** program. The University contracts with;

Contact Human Resources at (415) 422-6707 for current physician information

Hepatitis B vaccination shall be made available to all employees who have occupational exposure after the employee has received training covering the occupational exposure hazards of their job as well as the information within this program **(see section 3.10.0 on Information and Training)**. This training must occur **within 10 working days of initial assignment.** Vaccination is not necessary if the employee has previously received the complete Hepatitis B vaccination series, if antibody testing has revealed that the employee is immune, if the vaccine is contraindicated for medical reasons, or if the employee declines the vaccination and signs the Hepatitis B vaccination waiver.

Participation in a **pre-screening program** shall **not** be a prerequisite for receiving the **Hepatitis B vaccination**.

If the employee initially declines the **Hepatitis B vaccination** but at a later date, while still covered under the standard, decides to accept the vaccination, the vaccination shall then be made available at no cost.

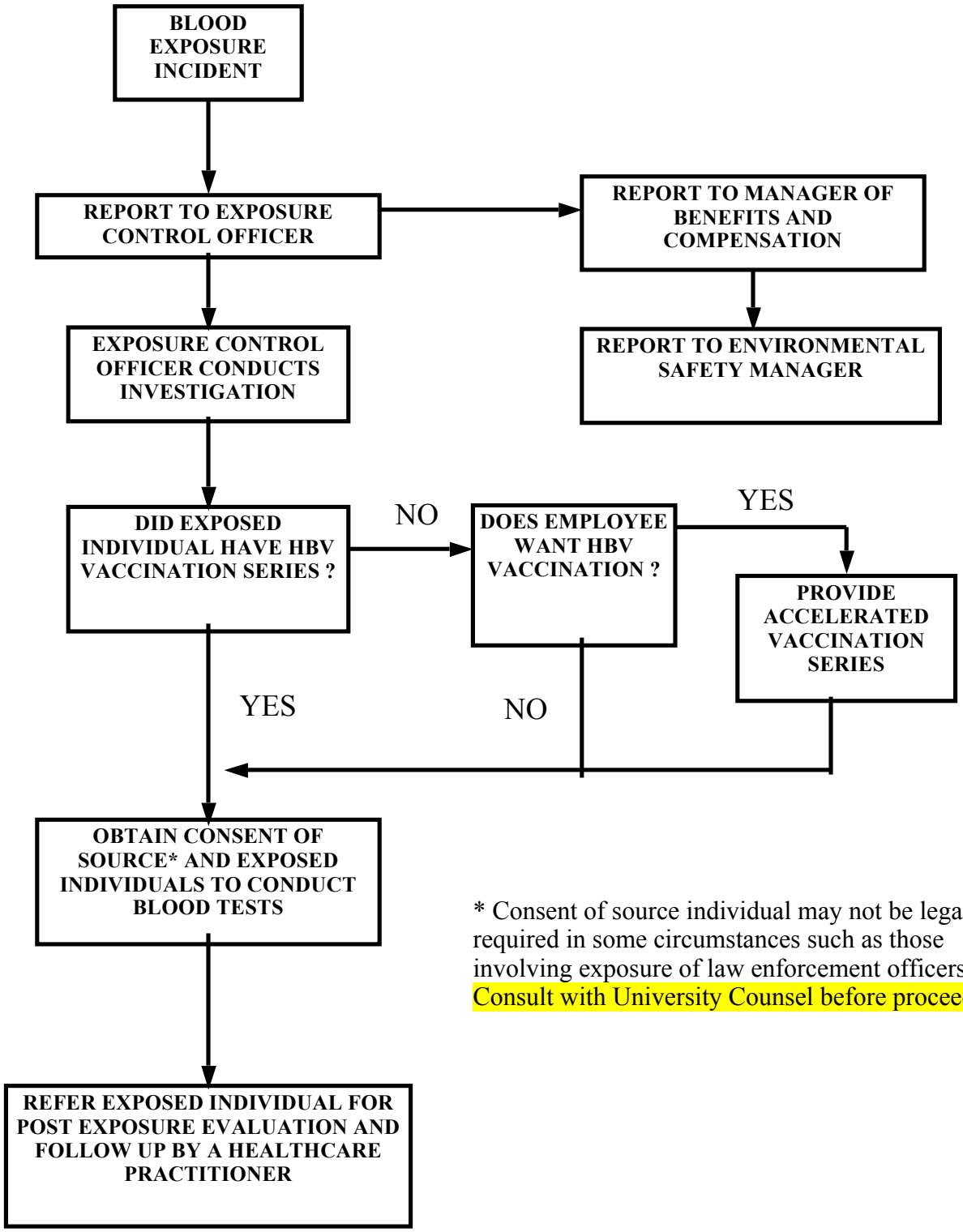
All employees who decline the **Hepatitis B vaccination** shall sign a Cal/OSHA required waiver indicating their refusal **(see Appendix B).**

The U.S. Public Health Service does not currently recommend a booster dose of the Hepatitis B vaccine. If, at a future date, such a booster is recommended it shall be made available at no cost.

Sec 3.11.3 Post Exposure Evaluation and Follow-up:

All exposure incidents shall be reported, investigated, and documented by the **Exposure Control Officer**. When the employee incurs an exposure incident, the **Exposure Control Officer** will report the exposure to the **Manager of Benefits and Compensation.** The **Manager of Benefits and Compensation** will contact the **Environmental Safety Manager** to coordinate the investigation with the **Exposure Control Officer**. See the Exposure Incident Response Flow Diagram shown on the following page.

Flow Diagram For Response To Exposure Incident



* Consent of source individual may not be legally required in some circumstances such as those involving exposure of law enforcement officers. Consult with University Counsel before proceeding.

Upon completion of the investigation, the **Exposure Control Officer** will file a report with the **Manager of Benefits and Compensation** and maintain a copy filed with the written program. Following a report of an exposure incident, the exposed employee shall immediately receive a confidential medical evaluation and follow-up, including at least the following elements:

- Documentation of the route of exposure, and the circumstances under which the exposure incident occurred.
- Identification and documentation of the source individual, unless it can be established that state or local law prohibits identification.
- The source individual's **blood** shall be tested as soon as feasible after consent is obtained, if legally required, in order to determine potential **Bloodborne Pathogen** infection. The **University Counsel** shall establish whether the law requires consent.
- When it is known that the source individual is infected with **HBV** or **HIV**, testing for the source individual's **HBV** or **HIV** status need not be repeated.
- Results of the source individual's testing shall be made available to the exposed employee, and the employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

Sec 3.11.4 Collection and Testing of Blood

Collection and testing of blood for HBV and HIV serological status will comply with the following:

- A sample of the exposed employee's **blood** shall be collected as soon as feasible and tested after consent is obtained.
- The employee will be offered the option of having the **blood** sample tested for HIV/HBV serological status. The **blood** sample will be preserved for up to 90 days to allow the employee to decide if the **blood** should be tested for HIV/HBV serological status.

All employees who incur an exposure incident will be offered post-exposure evaluation and follow-up according to the Cal/OSHA standard. All **post exposure evaluations and follow-ups** will be performed by:

Contact Human Resources at (415) 422-6707 for current physician information

Sec 3.11.5 Information provided to the Healthcare Professional:

The **Manager of Benefits and Compensation** shall ensure that the healthcare professional responsible for the employee's **Hepatitis B vaccination** and post exposure employee evaluation is provided the following additional information:

- A copy of California Code of Regulations, Title 8, Section 5193; *(while the standard outlines the confidentiality requirements of the health care professional, it might be helpful to remind the healthcare professional of these requirements)*.
- A written description of the exposed employee's duties as they relate to the exposure incident.
- Written documentation of the route of exposure and circumstances under which exposure occurred.
- Results of the source individual's **blood** testing, if available.
- All medical records relevant to the appropriate treatment of the employee including vaccination status.

Sec 3.11.6 Healthcare Professional's Written Opinion

The **Manager of Benefits and Compensation** shall obtain and provide the employee with a copy of the evaluating healthcare professional's written opinion **within 15 days** of completion of the evaluation. The healthcare professional's written opinion for **HBV vaccination** and post exposure follow-up shall be limited to the following information:

- Whether vaccination is indicated for the employee and if the employee has received such vaccination.
- A statement that the employee has been informed of the results of the evaluation.
- A statement that the employee has been told about any medical conditions resulting from exposure to **blood** or **OPIM** that require further evaluation or treatment.

Note: All other findings or diagnosis shall remain confidential and shall not be included in the written report.

Sec 3.12.0 Labels and Signs

The **Exposure Control Officer** shall ensure that biohazard labels are affixed to containers of regulated waste, refrigerators and freezers containing **blood** or **OPIM**, and other containers used to store, transport, or ship **blood** or **OPIM**. The label shall include the universal biohazard symbol and the legend.

In the case of regulated waste the word **BIOHAZARDOUS WASTE** may be substituted for the **BIOHAZARD** legend. The label shall be fluorescent orange or orange-red. Regulated waste red bags or containers must also be labeled.

Blood products that have been released for transfusion or other clinical use are exempted from these labeling requirements.

Sec 3.13.0 Information and Training

The **Exposure Control Officer** shall ensure that training is provided to the employee(s) at the time of initial assignment to tasks where occupational exposure may occur, and that it shall be **repeated within twelve months** of the previous training. Training shall be tailored to the education and language level of the employee, and offered at no cost during the normal work shift. The training will be interactive and cover at least the following elements:

- An accessible copy of the standard and an explanation of its contents.
- A discussion of the epidemiology and symptoms of bloodborne diseases.
- An explanation of the modes of transmission of **bloodborne pathogens**.
- Explanation of the University's **Bloodborne Pathogen Exposure Control Plan** (this program), and a method for obtaining a copy.
- The recognition of tasks that may involve exposure.
- An explanation of the use and limitations of methods to reduce exposure, for example **engineering controls**, **work practices** and **PPE**.
- Information on the types, use, location, removal, handling, decontamination, and disposal of **PPE**.
- An explanation of the basis of selection of **PPE**.
- Information on the **HBV vaccination**, including efficacy, safety, method of administration, benefits, and that it will be offered free of charge.
- Information on the appropriate actions to take and persons to contact in an emergency involving **blood** or **OPIM**.
- An explanation of the procedures to follow if an exposure incident occurs, including the method of reporting and medical follow-up.
- Information on the evaluation and follow-up required after an employee exposure incident.
- An explanation of the signs, labels, and color-coding systems.

The person conducting the training shall be knowledgeable in the subject matter.

Employees who have received training on **bloodborne pathogens** in the twelve months preceding the effective date of this policy shall only receive training in provisions of the policy that were not covered.

Additional training shall be provided to employees when there are any changes of tasks or procedures affecting the employee's occupational exposure.

Sec 3.14.0 Recordkeeping

Sec 3.14.1 Medical Records:

The **Manager of Benefits and Compensation** is responsible for the maintenance of medical records related to occupational exposure as indicated below. These records will be kept by the healthcare professional contracted to provide these services. Please note that outside suppliers of the HBV vaccination series, post exposure and follow-up and HBV vaccination evaluation must maintain such records to be consistent with the requirements of **Cal/OSHA Bloodborne Pathogen Standard #5193**.

Medical records shall be maintained in accordance with **Title 8 California Code of Regulation Section 3204.** These records shall be kept confidential, and not disclosed without employee's written consent and must be maintained for at least the duration of employment plus 30 years. The records shall include the following.

- The name and social security number of the employee.
- A copy of the employee's HBV vaccination status, including the dates of vaccination and ability to receive vaccination.
- A copy of all results of examination, medical testing. and follow-up procedures.
- A copy of the information provided to the healthcare professionals including a description of the employee's duties as they relate to the exposure incident, and documentation of the routes of exposure and circumstances of the exposure.
- A confidential copy of the healthcare professional's opinion.

Sec 3.14.2 Training Records:

Exposure Control Officer is responsible for maintaining the following training records. These records will be kept in the binder with the written program.

Training records shall be maintained for three years from the date of training. At minimum the following information shall be documented:

- The dates of the training sessions.
- An outline describing the material presented.
- The names and qualifications of persons conducting the training.
- The names and job titles of all persons attending the training sessions.

Sec 3.14.2a Availability:

The employee's records shall be made available to the employee or to a designated representative for examination and copying upon request in accordance with **T8 CCR - GISO Section #3204**.

All employee records shall be made available to the Chief of the Division of Occupational Safety and Health (DOSH) and the National Institute for Occupational Safety and Health (NIOSH).

Sec 3.14.2b Transfer of Records:
If this facility is closed or there is no successor employer to receive and retain the records for the prescribed period, the Chief of DOSH shall be contacted for final disposition in accordance with Section 3204.

Sec 3.15.0 Evaluation and Review

The **Environmental Safety Manager** is responsible for annually reviewing, evaluating, and updating the program. This includes the right to inspect and review all facilities, job activities, and all required records. If it is determined that significant or repeated non-compliance is present in any area or job occupation identified as having exposure potential, the Environmental Safety Manager has the authority to discontinue those activities until such time as they have been corrected.

Sec 3.16.0 Outside Contractors

All contractors working for the University within the legal boundaries of the campus must be made aware of any exposures that exist. If these contractors are engaged in activities that put them at risk of exposure they must have a **Bloodborne Pathogen Program** that complies with the standards set forth by Cal/OSHA.

Sec 3.17.0 Spill Response Procedures

The clean up of spills involving biohazardous waste should not be attempted without the proper training, equipment and PPE. There is too great a potential for infection, especially if sharps are involved. If a spill should occur, remove people from the area and attempt to block access to the area either through the use of caution tape, objects such as chairs or closing and locking the door. Call Environmental Safety at x6464 during standard business hours, or Public Safety at (415) 422-4201 after hours. The following biohazardous waste cleanup chart summarizes the procedures, equipment, and PPE required for cleaning a spill of biohazardous material.

Biohazardous Waste Spill Response

Spill Type	PPE Used	Spill Equip.	Decontamination	Containment / Storage	Disposal
Liquid Blood	Lab coat, latex gloves, face mask, disposable rubber shoe covers	Absorbent, Disinfectant, Plastic Dust Pan & Brush, Red Biohazard Bag, Plastic Container	Spill areas will be disinfected using a dilute solution of sodium hypochlorite (Bleach) or a commercial disinfectant	Absorbed blood will be swept into red biohazard bag and transported in a plastic box to our waste storage shed pending disposal.	All sharps and blood contaminated materials including absorbent collected in clean up operations will be disposed of using a certified contractor.
Sharps / Needles	Lab coat, nitrile or latex gloves over leather puncture resistant gloves, face mask, disposable rubber shoe covers	Absorbent, Disinfectant, Plastic Dust Pan & Brush, Sharps Container, Plastic Container	Spill areas will be disinfected using a dilute solution of sodium hypochlorite (Bleach) or a commercial disinfectant	Sharps will be swept into sharps container and transported in a plastic box to our waste storage shed pending disposal.	All sharps and blood contaminated materials including absorbent collected in clean up operations will be disposed of using a certified contractor.
Blood Contaminated Materials	Lab coat, latex gloves, face mask, disposable rubber shoe covers	Absorbent, Disinfectant, Plastic Dust Pan & Brush, Red Biohazard Bag, Plastic Container	Spill areas will be disinfected using a dilute solution of sodium hypochlorite (Bleach) or a commercial disinfectant	Blood contaminated materials will be swept into red biohazard bag and transported in a plastic box to our waste storage shed pending disposal.	All sharps and blood contaminated materials including absorbent collected in clean up operations will be disposed of using a certified contractor.

Appendix "A" Sample Employee Notification Letter

SAMPLE LETTER
EMPLOYEE NOTIFICATION
OCCUPATIONAL REQUIREMENT FOR HEPATITIS B VACCINATION

[DATE]

[NAME]
University of San Francisco
2130 Fulton Street
San Francisco, CA 94117-1080

Dear **[employee name]**

Your occupation at the University of San Francisco may expose you to the Hepatitis B virus.

The University has contracted with Dr. **[NAME]** to provide you with Hepatitis B vaccinations. Dr. **[NAME]**'s office is located at **[ADDRESS]**. Please telephone **[HIS/HER]** office at [**PHONE NUMBER]** prior to **[DATE]** to schedule your appointment(s). If this arrangement is not convenient for you, please call me at extension 6707 to make other arrangements.

If you wish to waive your right to a University provided Hepatitis B vaccination series, please sign the enclosed Hepatitis B vaccine waiver and return it to **[BENEFITS MANAGER]** in Personnel Services by **[DATE]**; otherwise please call Dr. **[NAME]**'s office by **[DATE]** to schedule an appointment. New OSHA laws require that the University document that you have had the vaccine or that you waive your right to one.

Thank you in advance for your cooperation.

Sincerely,

[NAME]
Manager of Benefits and Compensation

Appendix "B" RECORD OF HEPATITIS "B" VACCINE WAIVER

I understand that due to my occupational exposure to blood or other potentially infectious materials during my employment with the University of San Francisco, I am at risk of hepatitis B virus (HBV) infection. I further understand that the Hepatitis B virus is transmitted by contact with infected blood, blood products or other potentially infectious materials and that **the virus can be fatal.**

I have been given the opportunity to be vaccinated with the hepatitis B vaccine at no charge to me. However, I voluntarily decline the hepatitis B vaccination at this time. I understand that by declining this vaccine I continue to be at risk of acquiring Hepatitis B, a serious disease. Having voluntarily waived my right to receive the HBV vaccination at no charge to myself, in the event that I contract the hepatitis B virus due to an occupational exposure while performing my duties as a University of San Francisco employee I make the following declaration:

I hereby indemnify, defend and hold harmless the University of San Francisco, its officers, agents, employees or any persons acting on its behalf, against any and all claims for personal illness or death which may arise due to my exposure to the hepatitis B virus.

If, in the future I continue to experience occupational exposure to blood or other potentially infectious materials, and I want to be vaccinated with the hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Employee Name _____

Employee Signature _____

Employee Job Title _____

Social Security Number _____

Employer Representative _____

Date _____

Appendix "C" EXPOSURE INCIDENT REPORT

EXPOSURE INCIDENT REPORT
This Report Is To Be Completed Immediately Following A Exposure Incident

Date: _____
Inspector's Name: _____
Name of Exposure Control Officer: _____
Date of Exposure Incident: _____

Name(s) of Exposed Individual(s):

_____
_____
_____
_____

Have Exposed Individual(s) had the HBV vaccination series? Yes No

Will exposed individual(s) agree to blood testing? Yes No

Description of Exposure Incident:

_____
_____
_____
_____
_____

Was the Exposure Source an individual or inanimate object (i.e. needle)?_____

Name of the Source Individual or inanimate object:_____

Is the HBV and/or HIV status of the Source Individual known? Yes No

If no, will Source Individual consent to blood testing to determine HBV/HIV status? Yes No

If no, is a sample of Source Individual's blood available (bloodied shirt, bandage, etc.)? Yes No

If yes, freeze sample and request University Counsel (x6822) to make an immediate determination as to the legal requirement for consent. If legal consent is not required then contact the University contracted health care provider to have the material tested.

Exposed individuals must be referred to the University contracted health care provider for Post Exposure Evaluation and Follow Up. Contact the Manager of Benefits and Compensation in Personnel Services at x6707.

Appendix "D" LABELING REQUIREMENTS

Item	No Label Needed		Biohazard Label		Red Container
Regulated waste bags			**X**	**and**	**X**
Sharps containers - disposable and/or reusable sharps			**X**	**and**	**X**
Reusable contaminated sharps container (e. g., surgical instruments soaking in a tray)			**X**	**or**	**X**
Refrigerator/freezer that holds blood or OPIM			**X**		
Containers used for storage, transport or shipping of blood or OPIM			**X**	**or**	**X**
Blood/blood products for clinical use	**X ***				
Individual specimen containers of blood or OPIM remaining in facility	**X ***	**or**	**X**	**or**	**X**
Contaminated equipment needing service (e.g. dialysis equipment, suction apparatus)	**X** **If equipment is decontaminated**	**or**	**X** **Label indicating site of contamination**		
Specimens and regulated waste shipped from the primary facility to another facility for service or disposal			**X**		
Contaminated laundry			**X**	**or**	**X**
Contaminated laundry sent to another facility that does not use Universal Precautions			**X**	**or**	**X**

* **<u>NO LABEL NEEDED</u> only if universal precautions are used and all employees KNOW the specific use of the container or item.**

APPENDIX "E" GLOSSARY

BLOOD

Human whole blood, human blood components and products made from blood.

BLOODBORNE PATHOGEN

Pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

CLINICAL LABORATORY

A workplace where diagnostic or other screening procedures are performed on blood or other potentially infectious materials.

CONTAMINATED

Presence or the reasonably anticipated presence of blood or other potentially infectious materials on a surface or within or on an item.

CONTAMINATED LAUNDRY

Laundry that has been soiled with blood or other potentially infectious materials or may contain sharps.

CONTAMINATED SHARPS

Any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.

DECONTAMINATION

The use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal. Decontamination includes procedures regulated by Health and Safety Code Section 25090.

ENGINEERING CONTROLS

Controls (e.g. sharps disposal containers, self-sheathing needles) that isolate or remove the bloodborne pathogens hazard from the workplace.

EXPOSURE CONTROL PLAN

Written plan that outlines facilities procedures to identify occupations at risk for exposure to bloodborne pathogens and states the active precautions and controls to limit that exposure.

EXPOSURE INCIDENT

A specific eye, mouth, mucous membrane, or parenteral contact with blood or other potentially infectious material that results from the performance of an employee's duties.

HANDWASHING FACILITY:

A facility providing an adequate supply of running potable water, soap, and single use towels or hot air drying machines.

HBV Hepatitis B Virus

HIV Human Immunodeficiency Virus

LICENSED HEALTHCARE PROFESSIONAL

A person whose legally permitted scope of practice allows him/her to independently perform the activities required by section 3.11.0, Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up.

NIOSH

National Institute for Occupational Safety and Health.

ONE-HAND TECHNIQUE

A procedure wherein the needle of a reusable syringe is capped in a sterile manner during use. The technique employed shall require the use of only the hand holding the syringe so that the free hand is not exposed to the uncapped needle.

OPIM (Other Potentially Infectious Materials)

Infectious materials including semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids. This category also includes any unfixed tissue or organ other than intact skin from a human (living or dead) and human immunodeficiency virus (HIV)-containing cells. Also included are tissue cultures, organ cultures, and HIV or hepatitis B (HBV)-containing culture medium as well as other solutions such as blood, organs or other tissues from experimental animals infected with HIV or HBV.

PARENTERAL

Exposure to body fluids through piercing mucous membranes or the skin barrier through events such as needle sticks, human bites, cuts, abrasions, and means other than ingestion.

PERSONAL PROTECTIVE EQUIPMENT

Specialized clothing or equipment such as goggles or gloves worn or used by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a biohazard and are not considered to be personal protective equipment.

REGULATED WASTE

Liquid or semi-liquid blood or other potentially infectious materials, contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed. Also included are items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling. Contaminated sharps and pathological and microbiological wastes containing blood or other potentially infectious materials. Regulated Waste includes "medical waste" as regulated by Health and Safety Code Chapter 6.1.

RESEARCH LABORATORY

A laboratory producing or using research-laboratory-scale amounts of HIV or HBV. Research laboratories may produce high concentrations of HIV or HBV but not as much as that produced in facilities.

SOURCE INDIVIDUAL

An individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee. Examples include, but are not limited to, hospital and clinic patients; clients in institutions for the developmentally disabled; trauma victims; clients of drug and alcohol treatment facilities; residents of hospices and nursing homes; human remains; and individuals who donate or sell blood or blood components.

STERILIZE

The use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores. Sterilization includes procedures regulated by the Health and Safety Code Section 25090.

UNIVERSAL PRECAUTIONS

A widely used comprehensive standard system for controlling infection. According to the concept of Universal Precautions, all human blood and certain human body fluids are presumed to be infectious for HIV, HBV and other bloodborne pathogens and are treated as such.

USDHS United States Department of Health Services

USPHS United States Public Health Service

WORK PRACTICE CONTROLS

Controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting the two-handed technique for needle recapping).

APPENDIX "F" BLOODBORNE FACTS
US DEPARTMENT OF LABOR
OCCUPATIONAL HEALTH AND SAFETY

HOLDING THE LINE ON CONTAMINATION

Keeping work areas clean and sanitary reduces the employee's risk of exposure to bloodborne pathogens. Each year about 8,700 health care workers are infected with hepatitis B virus, and 200 die from contracting hepatitis B through their work. The chance of contracting human immunodeficiency virus (HIV), the bloodborne pathogen, which causes AIDS, from occupational exposure, is small, yet a good housekeeping program can minimize this risk as well.

DECONTAMINATION

Every employer whose employees are exposed to blood or other potentially infectious materials must develop a written schedule for cleaning each area where exposures occur. The methods of decontaminating different surfaces must be specified, determined by the type of surface to be cleaned, the soil present and the tasks or procedures that occur in that area.

For example, different cleaning and decontamination measures would be used for a surgical operation and patient room. Similarly, hard surfaced flooring and carpeting require separate cleaning methods. More extensive efforts will be necessary for gross contamination than for minor spattering. Likewise, such varied tasks as laboratory analyses and normal patient care would require different techniques for clean up.

Employees must decontaminate working surfaces and equipment with an appropriate disinfectant after completing procedures involving exposure to blood. Many laboratory procedures are performed on a continual basis throughout a shift. Except as discussed below, it is not necessary to clean and decontaminate between procedures. However, if the employee leaves the area for a period of time, for a break or lunch, then contaminated work surfaces must be cleaned.

Employees also must clean: (1) When surfaces become obviously contaminated; (2) After any spill of blood or other potentially infectious materials; (3) At the end of the work shift if contamination might have occurred. Thus, employees need not decontaminate the work area after each patient care procedure, but only after those that actually result in contamination.

If surfaces or equipment are draped with protective coverings such as plastic wrap or aluminum foil, these coverings should be removed or replaced if they become obviously contaminated. Reusable receptacles such as bins, pails and cans that are likely to become contaminated must be inspected and decontaminated on a regular basis. If contamination is visible, workers must clean and decontaminate the item immediately, or as soon as feasible.

Should potentially contaminated glassware break, mechanical means such as a brush and dustpan tongs, or forceps should be used to pick up the broken glass. Potentially contaminated broken glassware should **never** be cleaned up by hand.

Before any equipment is serviced or shipped for repairing or cleaning, it must be decontaminated to the extent possible. The equipment must be labeled, indicating which portions are still contaminated. This

enables employees and those who serviced the equipment to take appropriate precautions to prevent exposure.

REGULATED WASTE
Proper handling of regulated waste is essential to prevent unnecessary exposure to blood and other potentially infectious materials. Regulated waste is either biohazardous waste or sharps waste as defined in the Medical Waste Management Act (Chapter 6.1 of the Health and Safety Code, Section 25025 et seq.)

Biohazard waste must be placed in a red biohazard bag labeled "**Biohazardous Waste**" or with the international biohazard symbol and the word "**BIOHAZARD**". Bags must be tied off and placed in containers that can be closed and are leak resistant and labeled for storage or transport. Sharps waste must be placed in rigid, puncture-resistant containers labeled with the words "sharps waste" or with the international biohazard symbol and the word "BIOHAZARD".

Regulated waste must be disposed of in accordance with California's Medical Waste Management Act (Chapter 6.1 of the Health and Safety Code, Section 25025 et seq.)

LAUNDRY
Laundry workers must wear gloves and handle contaminated laundry as little as possible, with a minimum of agitation. Contaminated laundry should be bagged or placed in containers at the location where it is used, but not sorted or rinsed there.

Laundry must be transported within the establishment or to outside laundries in labeled or red color-coded bags. If the facility uses Universal Precautions for handling all soiled laundry, then alternate labeling or color-coding that can be recognized by the employees may be used. If laundry is wet and it might soak through laundry bags, then workers must use bags that prevent leakage to transport it.

RESEARCH FACILITIES
More stringent decontamination requirements apply to research laboratories and production facilities that work with concentrated strains of HIV and HBV.

PERSONAL PROTECTIVE EQUIPMENT REDUCES RISKS
Wearing gloves, gowns, masks, and eye protection (PPE) can significantly reduce health risks for workers exposed to blood and OPIM. The new OSHA standard covering bloodborne disease requires employers to provide appropriate personal protective equipment (PPE) and clothing free of charge to employees.

Workers who have direct exposure to blood and other potentially infectious materials on their jobs run the risk of contracting bloodborne infections from hepatitis B virus (HBV), human immunodeficiency virus (HIV) which causes AIDS, and other pathogens. About 8700 health care workers each year are infected with HBV, and 200 die from the infection. Although the risk of contracting AIDS through occupational exposure is much lower, wearing proper PPE can greatly reduce potential exposure to all bloodborne infections.

SELECTING PPE

Personal protective clothing and equipment must be suitable. This means the level of protection must fit the expected exposure. For example, gloves would be sufficient for a laboratory technician who is drawing blood, whereas a pathologist conducting an autopsy would need considerably more protective clothing.

PPE may include gloves, gowns, laboratory coats, face shields or masks, eye protection, pocket masks and other protective gear. The gear must be readily accessible to employees and available in appropriate sizes.

If an employee is expected to have hand contact with blood or other potentially infectious materials or contaminated surfaces, he/she must wear gloves. Single use gloves cannot be washed or decontaminated for reuse. Utility gloves may be decontaminated if they are not compromised. They should be replaced when they show signs of cracking, peeling, tearing, puncturing, or deteriorating. If employees are allergic to standard gloves, the employer must provide hypoallergenic gloves or similar alternatives.

Routine gloving is not required for phlebotomy in voluntary blood donation centers, though it is necessary for all other phlebotomies. In any case, gloves must be available in voluntary blood donation centers for employees who want to use them. Workers in voluntary blood donation centers must use gloves: (1) When they have cuts, scratches or other breaks in their skin; (2) While they are in training; (3) When they believe contamination might occur.

Employees should wear eye and mouth protection such as goggles and masks, glasses with solid side shields and masks or chin-length face shields when splashes, sprays, splatters or droplets of potentially infectious materials pose a hazard through the eyes, nose or mouth. More extensive coverings such as gowns, aprons, surgical caps and hoods and shoe covers or boots are needed when gross contamination is expected.

AVOIDING CONTAMINATION
The key is that blood or other infectious materials must not reach an employee's work clothes, street clothes, undergarments, skin, eyes, mouth or other mucous membranes under normal conditions for the duration of exposure.

Employers must provide the PPE and ensure that their workers wear it. This means that if the employer considers a lab coat PPE, then the employer rather than the employee must supply it. The employer also must clean or launder clothing and equipment and repair or replace it as necessary.

Additional protective measures such as using PPE in animal rooms and decontaminating PPE before laundering are essential in facilities that conduct research on HIV or HBV.

EXCEPTION
There is one exception of the requirement for protective gear. An employee may choose, temporarily and briefly, under rare and extraordinary circumstances, to forego the equipment. It must be the employee's professional judgement that using the protective equipment would prevent the delivery of health care or public safety services or would pose an increased hazard to the safety of the worker or co-worker. When one of these excepted situations occurs, employers are to investigate and document the circumstances to determine if there are ways to avoid it in the future. For example, if a firefighter's resuscitation device is damaged, perhaps another type of device should be used or the devices should be carried in a different manner. Exceptions must be limited - this is not a blanket exemption.

DECONTAMINATING AND DISPOSING OF PPE
Employees must remove personal protective clothing and equipment before leaving the work area or when the PPE becomes contaminated. If a garment is penetrated, workers must remove it immediately or as soon as feasible. Used protective clothing and equipment must be placed in designated containers for storage, decontamination or disposal.

OTHER PROTECTIVE PRACTICES
If an employee's skin or mucous membranes come into contact with blood, he/she is to wash with soap and water and flush eyes with water as soon as feasible. In addition, workers must wash their hands immediately or as soon as feasible after removing protective equipment. If soap and water are not immediately available, employers may provide other handwashing measures such as moist towelettes. Employees still must wash with soap and water as soon as possible.

Employees must refrain from eating, drinking, and smoking as well as applying cosmetics or lip balm and handling contact lenses in areas where they may be exposed to blood or other potentially infectious materials.

HEPATITIS B VACCINATION: PROTECTION FOR YOU

WHAT IS HBV?

Hepatitis B virus (HBV) is a potentially life-threatening bloodborne pathogen. Centers for Disease Control estimates there are approximately 280,000 HBV infections each year in the US.

Approximately 8,700 health care workers each year contract hepatitis B, and about 200 will die as a result. In addition, some who contract HBV will become carriers, passing the disease on to others. Carriers also face a significantly higher risk for other liver ailments that can be fatal, including cirrhosis of the liver and primary liver cancer.

HBV infection is transmitted through exposure to blood and other infectious body fluids and tissues. Anyone with occupational exposure to blood is at risk of contracting the infection.

Employers must provide engineering controls; workers must use safe work practices and protective clothing and equipment to prevent exposure to potentially infectious materials. However, the best defense against hepatitis B is vaccination.

WHO NEEDS VACCINATION?

The new OSHA standard covering bloodborne pathogens requires employers to offer the three injection vaccination series free to all employees who are exposed to blood or other potentially infectious materials as part of their job duties. This includes health care workers, emergency responders, morticians, first-aid personnel, law enforcement officers, correctional facilities staff, laundry workers, as well as others.

The vaccination must be offered within 10 days of initial assignment to a job where exposure to blood or other potentially infectious materials can be "reasonably anticipated". The requirements for vaccinations of those already on the job took effect July 6, 1992.

HEPATITIS B VACCINATION INFORMATION

The hepatitis B vaccination is a noninfectious, yeast-based vaccine given in three injections in the arm. It is prepared from recombinant yeast cultures, rather than human blood or plasma. Thus, there is no risk of contamination from other bloodborne pathogens nor is there any chance of developing HBV from the vaccine itself.

The second injection should be given one month after the first and the third injection six months after the initial dose. More than 90 percent of those vaccinated will develop immunity to the hepatitis B virus. To ensure immunity, it is important for individuals to receive all three injections. At this point is unclear how long the immunity lasts, so booster shots may be required as some point in the future.

The vaccine causes no harm to those who are already immune or to those who may be HBV carriers. Although employees may opt to have their blood tested for antibodies to determine need for the vaccine, employers may not make such screening a condition of receiving the vaccination nor are employers required to provide pre-screening.

Each employee should receive counseling from a health care professional when vaccination is offered. This discussion will help an employee determine when inoculation is necessary.

WHAT IF I AM EXPOSED BUT HAVE NOT YET BEEN VACCINATED?
If a worker experiences an exposure incident, such as a needlestick or a blood splash in the eye, he or she must receive confidential medical evaluation from a licensed health care professional with appropriate follow-up. To the extent possible by law, the employer is to determine the source individual for HBV as well as human immunodeficiency virus (HIV) infection. The worker's blood will also be screened if he or she agrees.

The health care professional is to follow the guidelines of the US. Public Health Service in providing treatment. This would include hepatitis B vaccination. The health care professional must give a written opinion on whether or not vaccination is recommended and whether the employee received it. Only this information is reported to the employer. Employee medical records must remain confidential. HIV or HBV status must NOT be reported to the employer.

REPORTING EXPOSURE INCIDENTS

OSHA's new bloodborne pathogens standard includes provisions for medical follow-up for workers who have an exposure incident. The most obvious exposure incident is a needle stick. But any specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials is considered an exposure incident and should be reported to the employer.

Exposure incidents can lead to infection from hepatitis B virus (HBV) or human immunodeficiency virus (HIV) that causes AIDS. Although few cases of AIDS are directly traceable to workplace exposure, every year about 8,700 health care workers contract hepatitis B from occupational exposures. Approximately 200 will die from this bloodborne infection. Some will become carriers, passing the infection on to others.

WHY REPORT?
Reporting an exposure incident right away permits immediate medical follow-up. Early action is crucial. Immediate intervention can forestall the development of hepatitis B or enable the affected worker to track potential HIV infection. Prompt reporting also can help the worker avoid spreading bloodborne infection to others. Further, it enables the employer to evaluate the circumstances surrounding the exposure incident to try to find ways to prevent such a situation from occurring again.

Reporting is also important because part of the follow-up includes testing the blood of the source individual to determine HBV and HIV infection, if this is unknown and if permission for testing can be obtained. The exposed employee must be informed of the results of these tests. Employers must explain to the employee what to do if an exposure incident occurs.

MEDICAL EVALUATION AND FOLLOW-UP
Employers must provide free medical evaluations and treatment to employees who experience an exposure incident. They are to refer exposed employees to a licensed health care provider who will counsel the individual about what happened and how to prevent further spread of any potential infection. He/she will prescribe appropriate treatment in line with current US Public Health Service recommendations. The licensed health care provider also will evaluate any reported illness to determine if the symptoms may be related to HIV or HBV development.

The first step is to test the blood of the exposed employee. Any employee who wants to participate in the medical evaluation program must agree to have blood drawn. However, the employee has the option to give the blood sample but refuse permission for HIV testing at that time. The employer must maintain the employee's blood sample for 90 days in case the employee changes his/her mind about testing - should symptoms develop that might relate to HIV or HBV infection.

The health care provider will counsel the employee based on the test results. If the source individual was HBV positive or in a “high risk” category, the exposed employee may be given hepatitis B immunoglobulin and vaccination, as necessary. If there is no information on the source individual or the test is negative, and the employee has not been vaccinated or does not have immunity based on his/her test, he or she may receive the vaccine. Further, the health care provider will discuss any other finding from the tests.

The standard requires that the employer make the hepatitis B vaccine available, at no cost to the employee, to all employees who have occupational exposure to blood and other potentially infectious materials. This requirement is in addition to post-exposure testing and treatment responsibilities.

WRITTEN OPINION
In addition to counseling the employee, the health care provider will submit a written report to the employer. This report identifies whether hepatitis B vaccination was recommended for the exposed employee and whether or not the employee received vaccination. The health care provider also must note that the employee has been informed of the results of the evaluation and told of any medical conditions resulting from exposure to blood which require further evaluation or treatment. Any added findings must be kept confidential.

CONFIDENTIALITY
Medical records must remain confidential. They are not available to the employer. The employee must give specific written consent for anyone to see the records. Records must be maintained for the duration of employment plus 30 years in accordance with OSHA's standard on access to employee exposure and medical records.

PROTECTING YOURSELF WHEN HANDLING SHARPS

A needle stick or cut from a contaminated scalpel can lead to infection from hepatitis B virus (HBV) or human immunodeficiency virus (HIV) that causes AIDS. Although few cases of AIDS have been documented from occupational exposure, approximately 8,700 health care workers each year contract hepatitis B. About 200 will die as a result. The new OSHA standard covering bloodborne pathogens specifies measures to reduce these risks of infection.

PROMPT DISPOSAL

The best way to prevent cuts and sticks is to minimize contact with sharps. That means disposing of them immediately after use. Puncture-resistant containers must be available nearby to hold contaminated sharps - either for disposal or, for reusable sharps, later decontamination for re-use. When reprocessing contaminated reusable sharps, employees must not reach by hand into the holding container. Contaminated sharps must never be sheared or broken.

Recapping, bending or removing needles is permissible only if there is no feasible alternative or if required for a specific medical procedure such as blood gas analysis. If recapping, bending or removal is necessary workers must use either a mechanical device or a one-handed technique. If recapping is essential - for example, between multiple injections for the same patient - employees must avoid using both hands to recap. Employees might recap with a one-handed "scoop" technique, using the needle itself to pick up the cap, pushing cap and sharp together against a hard surface to ensure a tight fit. Or they might hold the cap with tongs or forceps to place it on the needle.

SHARPS CONTAINERS

Containers for used sharps must be puncture resistant. The sides and bottom must be leak-proof. They must be labeled or color coded red to ensure that everyone knows the contents are hazardous. Containers for disposable sharps must have a lid, and they must be maintained upright to keep liquids and the sharps inside.

Employees must never reach by hand into containers of contaminated sharps. Containers for reusable sharps could be equipped with wire basket liners for easy removal during reprocessing or employees could use tongs or forceps to withdraw the contents. Reusable sharps disposal containers may not be opened, emptied or cleaned manually.

Containers need to be located as near to as feasible the area of use. In some cases, they may be placed on carts to prevent access to mentally ill or pediatric patients. Containers also should be available wherever sharps may be found, such as in laundries. The containers must be replaced routinely and not be overfilled, which can increase the risk of needle sticks or cuts.

HANDLING CONTAINERS
When employees are ready to discard containers, they should first close the lids. If there is a chance of leakage from the primary container, the employees should use a secondary container that can be closed, is leak-resistant and is labeled or color-coded to identify the contents as a biohazard.

Employees can prevent injuries and reduce the risk of infection by following safe work practices that includes the careful handling of sharps.

HEPATITIS B VACCINATION AND POST-EXPOSURE FOLLOW-UP SUMMARY OF KEY PROVISIONS

General
Requires vaccination and post exposure evaluation and follow-up to be made available to all employees who have occupational exposure at no cost, at a reasonable time and place under supervision of a licensed physician or healthcare professional and according to the latest recommendations of the U.S. Public Health Service (USPHS).

Hepatitis B Vaccination
Vaccine must be made available after an employee has received the required training within 10 working days of initial assignment. Employees must sign a declination form if they choose not to be vaccinated but may opt later to receive the vaccine at no cost. Pre-vaccination screening for antibody status may not be required as a condition of receiving the vaccine. The employer may make pre-screening available but it must be at no cost to the employee. An employee may decline the screening and the employer must still make the vaccination series available to the employee. If the series is not completed, the vaccine must continue to be available even if the series must be repeated. Should routine booster doses later be recommended by the USPHS employees must be offered them at no cost. At the time of this publication, the possible need for routine booster doses is still being assessed by the USPHS. There is no current requirement to provide boosters except for post-exposure prophylaxis.

Designated first aid responders need not be offered the pre-exposure vaccine if certain conditions exist, including availability of the Hepatitis B vaccination series as soon as possible. This must be no later than within 24 hours of the provision of assistance in any situation involving the presence of blood or other potentially infectious material. This only applies to those whose primary job assignment is not first aid but yet render first aid for workplace injuries as a collateral duty. There are additional requirements for reporting such incidents of providing first aid before the end of the work shift in which it occurred.

INTERPRETATIONS

Why did OSHA refer to the U.S. Public Health Service?
The medical treatment for bloodborne pathogens changes over time and the USPHS agency is responsible for issuing guidelines and making recommendations regarding infectious agents. OSHA will accept the guidelines current at the time of the evaluation or procedure.

What about low-dose intradermal (i.e. low cost) hepatitis B vaccine?

Intradermal vaccine with 0.1 of normal dose is not recommended by the USPHS and is therefore not an accepted method.

Can mandatory vaccination be required?
The term “made available” emphasizes that it is the employee's option to have the vaccination or not.

Must antibody screening be offered?
The employer need not offer antibody screening but if it is, it must be done so at no cost to the employee.

What does “no cost” mean?
"No cost" to the employee means no "out of pocket" expense to the employee. (a) The **employer may not require** the employee to use healthcare insurance to pay for the series unless the employer pays all of the cost of the healthcare and unless there is no cost to the employee in the form of deductibles or co-payment or other expenses. (b) The employer may not institute a program in which the employee pays the original cost of the vaccine and is reimbursed by the employer if she/he remains employed for a specified period of time. (c) An “amortization contract” which requires employees to reimburse the employer for cost should they leave prior to a specified period of time is similarly prohibited

POST-EXPOSURE EVALUATION AND FOLLOW-UP

Summary of Key Provisions
This section specifies procedures of the post-exposure evaluation and follow-up, which are to be made available to all employees who had an exposure incident, plus any laboratory tests which must be conducted by an accredited laboratory at no cost to the employee. This must include:

- Identification of the route and the circumstances.
- Source HBV and HIV testing as soon as feasible.
- Collection and testing of blood for HBV and HIV serological status.
- Post-exposure prophylaxis when medically indicated as recommended by the USPHS.
- Counseling.
- Evaluation of reported illnesses.

Healthcare professionals must be provided specified information to facilitate the evaluation and their written opinion on the need for a hepatitis B vaccination following the exposure. Information such as the employee's ability to receive the hepatitis B vaccine must be supplied to the employer. All diagnoses must remain confidential. The employer does not have a specific right to know the actual results of the source individual's blood testing but must ensure that the information is provided to the evaluating health care professional.

INTERPRETATIONS

What if an employee not covered by the standard is exposed?
Employees not covered by the standard may experience a specific exposure incident at work that is unrelated to the performance of their job duties. OSHA strongly encourages their employer to offer them the follow-up procedures in this section.

The employee refused testing, must counseling still be offered?
Counseling and evaluation of reported illness is not dependent on the employee's electing to have baseline HBV and HIV serological testing.

What incidents must be recorded on OSHA log?

- A work-related injury that involves loss of consciousness, transfer to another job or restriction of work or motion.
- An incident that results in recommendation of medical treatment beyond first aid (e.g. gamma globulin, hepatitis B immunoglobulin, or hepatitis B vaccine), even if treatment is declined.
- An incident that results in seroconversion but not the serological state of the employee.

When must source testing be done?
Testing of the source individual's blood shall be tested as soon as is feasible and after consent is obtained. If consent is not obtained the employer shall establish that legally required consent cannot be obtained. When the source individual's consent is not required by law (as specified by Penal Code 7500) the source individual's blood, if available, shall be tested and the results documented.

What does "feasible" mean?
The employer must document in writing the fact that it was not feasible to identify the source individual. Examples include incidents of needlesticks by abandoned syringes left in laundry or those involving blood samples not properly labeled or prohibition by State or local law.

How is confidentiality maintained?
The employer must have a system that maintains required medical records in a way that protects the confidentiality of the employee's identity and test results. If the employer has contracted with a clinic or health care facility to provide follow-up programs, confidentiality requirements must be part of the program.

Can a physician employer act as the evaluating health-care professional?
Yes, but the Cal/OSHA standard requires the employer to advise employees that they may refuse post-exposure evaluation and follow-up from the employer who must then offer a confidential evaluation from a health care professional other than the exposed employee's employer. This only applies to the actual employer acting as the evaluating health professional not to employee health services or other medical services under contract to an employer. This provision would allow medical information to remain confidential with respect to the employer, as provided by the standard.

COMMUNICATION OF HAZARDS TO EMPLOYEES

LABELS AND SIGNS

SUMMARY OF KEY PROVISIONS

Requires warning labels including the orange or orange-red biohazard symbol affixed to containers of such as refrigerators and freezers and other containers that are used to store or transport blood or other potentially infectious materials. When a facility uses universal precautions in its handling of all specimens, labeling is not required within the facility. Likewise, when all laundry is handled with universal precautions, the laundry bags need not be labeled

INFORMATION AND TRAINING

SUMMARY OF KEY PROVISIONS

Mandates training within 10 days from the effective date of employment, at the time of initial assignment to a duty which has potential exposure. Employees who have received appropriate training within the past year need only receive additional training in items not previously covered. Training material must be appropriate in content and vocabulary to the educational level and literacy level of employees. There must be opportunity for questions and answers and the trainer must be knowledgeable in the subject matter.

INTERPRETATIONS

What does "at the time of Initial assignment mean?"

It means that employees shall be trained prior to being placed in positions where occupational exposure may occur.

Do part-time, temporary, and per diem employees need to be trained?

Yes, and this must also be on company time.

What other bloodborne pathogens need to be covered?

The employer must convey the idea that a number of bloodborne diseases exist such as hepatitis C or syphilis. Uncommon diseases need not be covered unless employees are working with that particular virus or pathogen.

Does the standard specify the training method to be used?

No. Videotapes and computer programs may be utilized. However, a person knowledgeable in the subject matter needs to conduct the training program and information specific to that workplace must be presented. Further, an opportunity for interactive questions and answers with the trainer must be provided.

When and how will the competency of the trainer be determined?

If compliance personnel determine, through employee interviews, that training is deficient, the competency of the trainer will be verified based on completion of specified courses or degree programs.

Who would be an appropriate trainer?
A variety of health care professionals such as infection control practitioners, nurse practitioners, and registered nurses are appropriate trainers as well as physician's assistants or emergency medical technicians. Non-healthcare professionals, such as industrial hygienists, epidemiologists, or professional trainers may conduct the training provided they can demonstrate evidence of training in the area of bloodborne pathogens. In some workplaces, such as dental or physicians' offices the individual employer may conduct the training provided he or she is familiar with the subject matter required.

RECORDKEEPING

SUMMARY OF KEY PROVISIONS

Medical records for all employees are required to be kept for the duration of employment plus 30 years. Employers are also required to document such things as the contents of training, trainer's name and qualifications, names and job titles of all persons attending the sessions. These records are to be maintained for at least three years.

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