

MODEL EXPOSURE CONTROL PLAN

Note: This model exposure control plan is being offered as a guide to assist employers in complying with the VOSH/OSHA Bloodborne Pathogens Standard 1910.1030. It is not intended to supersede the requirements detailed in the standard. Employers should review the standard for particular requirements which are applicable to their specific situation, and then adapt this plan accordingly. As a part of this plan, an employers will need to have a schedule for maintenance and/or replacement of engineering controls and a housekeeping schedule and procedure for decontamination of contaminated surfaces and equipment. Please note that this plan does not include provisions for HIV/HBV laboratories and research facilities which are addressed in section (e) of the standard. Employers in these settings will need to add information relevant to their particular facility. The italicized content includes suggested approaches, and is not to indicate a single method of accomplishing exposure control.

EXAMPLE OF A BLOODBORNE PATHOGENS EXPOSURE CONTROL PLAN

I. INTRODUCTION

The OSHA/VOSH 1910.1030 Bloodborne Pathogens Standard was issued to reduce the occupational transmission of infections caused by microorganisms sometimes found in human blood and certain other potentially infectious materials. Although a variety of harmful microorganisms may be transmitted through contact with infected human blood, Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV) have been shown to be responsible for infecting workers who were exposed to human blood and certain other body fluids containing these viruses, through routes like needlestick injuries and by direct contact of mucous membranes and non-intact skin with contaminated blood/materials, in the course of their work. Occupational transmission of HBV occurs much more often than transmission of HIV. Although HIV is rarely transmitted following occupational exposure incidents, the lethal nature of HIV requires that all possible measures be used to prevent exposure of workers.

This exposure control plan has been established by James Madison University's Department/Office of _____ in order to minimize and to prevent, when possible, the exposure of our employees to disease-causing microorganisms transmitted through human blood, and as a means of complying with the Bloodborne Pathogens Standard. All employees who are exposed to blood and other potentially infectious materials as a part of their job duties are included in this program. (See II. Exposure Determination for a discussion of job categories and tasks that have been identified as having exposure.) This plan will be reviewed at least annually and updated as necessary by _____(Position Responsible). Copies of this plan are available (for review by any employee) in the following locations:

An employee may obtain a copy of this plan within 15 days of his/her request to _____(Position Responsible).

Basic components of this exposure control plan include:

- Exposure Determination
- Methods of Compliance
- Hepatitis B Vaccination Policy
- Procedures for Evaluation of Follow-up of Exposure Incidents
- Employee Training
- Recordkeeping Procedures

II. Exposure Determination

All job categories in which it is reasonable to anticipate that an employee will have skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials (listed below) will be included in this exposure control plan. Exposure determination is made without regard to the use of personal protective equipment. (i.e. employees are considered to be exposed even if they wear personal protective equipment)

Other Potentially Infectious Materials (OPIM)

Body Fluids

- semen
- vaginal secretions
- cerebrospinal fluid
- pleural fluid
- pericardial fluid
- peritoneal fluid
- amniotic fluid
- any body fluid visibly contaminated with blood
- saliva in dental procedures

Other Materials

- any unfixed tissue or organ (other than intact skin) from a human (living or dead)
- HIV/HBV containing cell or tissue cultures, organ cultures, and culture medium
- blood, organs, or other tissues from experimental animals infected with HIV or HBV

LIST A

ALL EMPLOYEES ARE EXPOSED

All employees in job categories listed here are included in the plan.

LIST B

SOME EMPLOYEES ARE EXPOSED

Job classifications in which some employees may have occupational exposure are included on this list. Since not all the employees in these categories are expected to incur exposure to blood or other potentially infectious materials, the tasks or procedures that would cause these employees to have occupational exposure are also listed. The job classifications and associated tasks for these categories are as follows:

Job Classification	Tasks/Procedures
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III. Methods of Compliance

Universal Precautions

All blood or other potentially infectious materials (as described in II. Exposure Determination) shall be handled as if contaminated by a bloodborne pathogen. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials.

Engineering and Work Practice Controls shall be used to eliminate or minimize employee exposure. Where occupational exposure remains after institution of these controls, personal protective equipment shall also be used. The following engineering controls will be utilized:

(List controls such as sharps containers, biologic safety cabinets, self-sheathing needles, etc.)

The above controls will be maintained or replaced on a regular schedule. The schedule for reviewing the effectiveness of the controls is as follows:

(Specify who is responsible and the frequency of the schedule, etc.)

Handwashing and other General Hygiene Measures

Handwashing is a primary infection control measure which is protective of both the employee and the patient. Appropriate handwashing must be diligently practiced. Employees shall wash hands thoroughly using soap and water whenever hands become contaminated and as soon as possible after removing gloves or other personal protective equipment. When other skin areas or mucous membranes come in contact with blood or other potentially infectious materials, the skin shall be washed with soap and water, and the mucous membranes shall be flushed with water, as soon as possible.

(Describe available handwashing facilities, or in circumstances where handwashing facilities are not feasible, describe alternative hand cleansing protocol; i.e. antiseptic hand cleanser used in conjunction with clean cloth/paper towels or antiseptic towelettes. When these alternatives are used, hands shall be washed with soap and running water as soon as feasible.)

Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of exposure to blood or other potentially infectious materials.

Food and drink shall not be kept in refrigerators, freezers, shelves, cabinets or on countertops or benchtops where blood or other potentially infectious materials are present.

Mouth pipetting/suctioning of blood or other potentially infectious materials is prohibited.

Employees shall use practices to minimize splashing, spraying, spattering, and generation of droplets during procedures involving blood or other potentially infectious materials. (list and discuss any prescribed practices for the particular setting; for example, lab technicians will remove vacutainer tops behind plexi-glass barriers.)

Sharps Management

Contaminated needles and other contaminated sharps shall not be bent, recapped or removed. Shearing or breaking of contaminated needles is prohibited.

(Note: in very special instances, recapping using a mechanical device or a one-handed technique may be permitted. Specify who, if anyone, within the facility qualifies for this exemption. List the procedures and the mechanical device to be used or alternately if the one-handed technique will be used.)

Sharps containers must be closable, puncture resistant, labeled or color-coded, and leakproof on sides and bottom, and maintained upright throughout use. Containers are to be easily accessible to personnel and located as close as is feasible to the immediate area where sharps are used or found. Contaminated disposable sharps shall be discarded, as soon as possible after use, in the disposable sharps containers. Contaminated broken glass is also to be placed in disposable sharps containers. As soon as possible after use, reusable contaminated sharps are to be placed in the reusable sharps container until properly processed.
(give locations of sharps containers.)

Overfilling of sharps containers creates a hazard when needles protrude from openings. Nearly full containers must be promptly disposed of (or emptied and decontaminated in the case of reusable sharps) and replaced.
(Designate individuals(s)/positions responsible for maintaining sharps containers.)

Precautions in Handling Specimens

Specimens of Blood or other potentially infectious materials shall be placed in a container which prevents leakage during collection, handling, processing, storage, transport, or shipping. The container must be closed before being stored, transported, or shipped.
(Describe containers used for this purpose and explain where they are located and accessed.)

Containers must be labeled/color-coded if they go out of the facility (labeling must also be used in-house if all specimens are not handled using universal precautions.) (Explain labeling/color coding procedure in use or alternately that the labeling exemption is in effect.)

If outside contamination of the primary container occurs, or if the specimen could puncture the primary container, the primary container shall be placed within a secondary container which prevents leakage, and/or, resists puncture during handling, processing, storage, transport, or shipping.
(Describe containers used for this purpose and explain where they are located and accessed.)

Management of Contaminated Equipment

Assess equipment for contamination, and decontaminate if possible, before servicing or shipping. Equipment which has not been fully decontaminated must have label attached with information about which parts remain contaminated.
(Describe who is responsible for assessing and decontaminating equipment and what decontamination procedure is to be used.)

Personal Protective Equipment

General Guidelines

All personal protective equipment will be provided, repaired, cleaned, and disposed of by the employer at no cost to employees. Employees shall wear personal protective equipment when doing procedures in which exposure to the skin, eyes, mouth, or other mucous membranes is anticipated. The articles to be worn will depend on the expected exposure. Gloves, gowns, laboratory coats, face shields, masks, eye protection, mouthpieces, resuscitation bags, pocket masks are available. A variety of sizes are in stock. Employees who have allergies to regular gloves may obtain hypoallergenic gloves.

(List procedures requiring personal protective equipment and the type of protection to be used. Explain how clothing will be provided, where it can be obtained, and who is responsible for distribution. See Appendix A.)

If a garment is penetrated by blood or other potentially infectious material, the garment shall be removed as soon as possible and placed in a designated container for laundering or

disposal. All personal protective equipment shall be removed before leaving the work area; it shall be placed in assigned containers for storage, washing, decontamination or disposal. (list where employees are expected to put contaminated garments and other personal protective equipment upon leaving the work area.)

Protection for Hands

Gloves shall be worn in the following situations:

- when it can be reasonably anticipated that hands will contact blood or other potentially infectious materials, mucous membranes, and non-intact skin;
 - when performing vascular access procedures (only exception is for phlebotomists in volunteer blood donation centers);
 - when handling or touching contaminated items or surfaces.
- (List procedures in which gloves are required or refer to Appendix A.)

Disposable Gloves

- Replace as soon as feasible when gloves are contaminated, torn, punctured, or when their ability to function as a barrier is compromised.
- Do not wash or decontaminate single use gloves for re-use.

Utility Gloves

- Decontaminate for re-use if the gloves are in good condition.
- Discard when gloves are cracked, peeling, torn, punctured or show other signs of deterioration (whenever their ability to act as a barrier is compromised).

Protection for Eyes/Nose/Mouth

Employees shall wear masks in combination with eye protection devices (goggles or glasses with solid side shields) or chin-length face shields whenever splashes, spray, spatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can be reasonably anticipated. Situations which would require such protection are as follows: (or see Appendix A)

Protection for the Body

A variety of garments including gowns, aprons, lab coats, clinic jackets, etc. are to be worn in occupational exposure situations. Surgical caps or hoods and/or shoe covers or boots shall be worn in instances when gross contamination can reasonably be anticipated (e.g., autopsies, orthopedic surgery). The following situations require the use of protective clothing: (or see Appendix A)

Housekeeping

General Policy

The workplace will be maintained in a clean and sanitary condition. A written housekeeping procedure guide, which gives the appropriate methods and frequency of decontamination based upon the location within the facility, type of surface to be cleaned, type of soil present, and tasks or procedures being performed, must be followed. (Explain where guide is located. List in the guide the germicides which will be used, such as bleach solution or EPA registered germicides. Guide may be added as an appendix.)

Equipment and Environmental and Working Surfaces

Clean contaminated work surfaces with appropriate disinfectant:

- after completing procedures;
- immediately or as soon as feasible when overtly contaminated or after any spill of blood or OPIM;
- at the end of the work shift if the surface may have become contaminated since the last cleaning.

Remove and replace protective coverings (e.g. plastic wrap, aluminum foil, etc.) over equipment and environmental surfaces as soon as feasible when overtly contaminated or at the end of the work shift if they may have become contaminated.

Regularly inspect/decontaminate all reusable bins, pails, cans, and similar recepticals which may become contaminated with blood or OPIM. If these articles become visibly contaminated, they should be decontaminated immediately or as soon as feasible.

(List frequency of inspection/decontamination and who is responsible.)

Special Sharps Precautions

Clean up broken glass which may be contaminated using mechanical means such as a brush and dustpan, tongs, or forceps. DO NOT pick up directly with the hands.

Reusable containers are not to be opened, emptied, or cleaned manually or in any other manner which will expose employees to the risk of percutaneous injury. DO NOT reach by hand into a container which stores reusable contaminated sharps.

Regulated Waste

Includes:

- 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;
- items that are capable of releasing these materials during handling;
- contaminated sharps;
- pathological and microbiological wastes containing blood or other potentially infectious materials.

Waste Containers

Any of the substances listed above must be placed in containers which are: closable; constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping.

In this facility, containers will be (Specify if a biohazard label or the color red will be used. If a label is used it must be fluorescent orange or orange-red with the biohazard warning and symbol in a contrasting color. The label must be either an integral part of the container or attached as close as is feasible to the container by string, wire, adhesive, or other method that prevents its loss or unintentional removal.) Regulated waste that has been decontaminated need not be labeled or color-coded.

Containers must be closed prior to moving/removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping. If the outside of the container becomes contaminated, it is to be placed in a second container which must have the same characteristics as the initial container as discussed above.

Waste containers are to be disposed of:

(Describe disposal methods. Methods must be in accordance with the Virginia Department of Waste Management's Infectious Waste Management Regulations.)

Laundry

Employees who handle contaminated laundry are to wear protective gloves and other appropriate personal protective equipment.

Contaminated laundry shall be handled as little as possible with a minimum of agitation. Do not sort/rinse laundry in location of use. Place in container/bag where it was used. Wet contaminated laundry which may soak-through or cause leakage from bag or containers which prevent soak-through and/or leakage of fluids to the exterior.

Bags/containers will . (Specify if a biohazard label or the color red will be used. If the facility utilizes universal precautions in the handling of all soiled laundry, alternative labeling or color coding is acceptable if it permits all employees to recognize the containers as requiring compliance with universal precautions.)

Laundry at this facility will be cleaned at .
(When contaminated laundry is shipped off site to a second facility which does not use universal precautions, the bags or containers must be labeled with biohazard label or be color-coded in red.)

Communication of Hazards to Employees

Employees will be informed of hazards through a system of (specify whether labeling or color-coding will be used), as well as a training program which is discussed in Section VI of this written plan.

Warning labels shall be affixed to containers of regulated waste, refrigerators and freezers containing blood or other potentially infectious material; and other containers used to store, transport or ship blood or other potentially infectious materials. Contaminated equipment shall also be labeled in this manner: information about the portions of the equipment that remain contaminated shall be added to the label.

Labels shall be fluorescent orange or orange-red with lettering or symbols in a contrasting color. The label is either to be an integral part of the container or affixed as close as feasible to the container by a method which prevents loss or unintentional removal of the label. The label shall have: the biohazard symbol and the text BIOHAZARD.

Red bags or red containers may be substituted for the warning label.

The labels/color-coding described here are not required in the following instances:

- when containers of blood, blood components, or blood products are labeled as to their contents and have been released for transfusion or other clinical use;
- when individual containers of blood or other potentially infectious materials are placed in labeled containers during storage, transport, shipment or disposal;
- when regulated waste has been decontaminated.

IV. HEPATITIS B VACCINATION POLICY

General Statement of Policy

All employees who have been identified as having exposure to bloodborne pathogens (see II. Exposure Determination) will be offered the hepatitis B vaccination series at no cost to them. In addition, these employees will be offered post-exposure evaluation and follow-up at no cost should they experience an exposure incident on the job.

All medical evaluations and procedures including the hepatitis B vaccination series, whether prophylactic or post-exposure, will be made available to the employee at a reasonable time and place. This medical care will be performed by or under the supervision of a licensed physician, physician's assistant, or nurse practitioner. Medical care and vaccination series will be according to the most current recommendations of the U. S. Public Health Service. A copy of the bloodborne pathogens standard will be provided to the healthcare professional responsible for the employee's hepatitis B vaccination.
(Give the name of responsible licensed healthcare professional.)

All laboratory tests will be conducted by an accredited laboratory at no cost to the employee. (Give name and location of the laboratory.)

Hepatitis B Vaccination

The vaccination is a series of three injections. The second injection is given one month from the initial injection. The final dose is given six months from the initial dose. At this time a routine booster dose is not recommended, but if the U. S. Public Health Service, at some future date recommends a booster, it will also be made available to exposed employees at no cost.

The vaccination will be made available to employees after they have attended training on bloodborne pathogens and within ten (10) working days of initial assignment to a job category with exposure. The vaccination series will not be made available to employees who have previously received the complete hepatitis B

vaccination series; to any employee who has immunity as demonstrated through antibody testing; or to any employee for whom the vaccine is medically contraindicated.

Any exposed employee who chooses not to take the Hepatitis B vaccination will be required to sign a declination statement. (See Appendix B)

(Add any specific instructions to employees related to scheduling and receiving hepatitis B vaccination.)

V. PROCEDURES FOR EVALUATION AND FOLLOW-UP OF EXPOSURE INCIDENTS

An exposure incident is a specific eye, mouth, or other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.

Employees who experience an exposure incident must immediately report their exposure to Position Name . When an employee reports an exposure incident, he/she will immediately be offered a confidential medical evaluation and follow-up including the following elements:

- documentation of the route(s) of exposure, and the circumstances under which the exposure incident occurred;
- identification and documentation of the source individual unless identification is infeasible.

If the infectivity status of the source individual is unknown, the individual's blood will be tested as soon as feasible after consent is obtained. If the source individual's blood is available, and the individual's consent is not required by law, the blood shall be tested and the results documented. The exposed employee will be informed of the results of the source individual's testing.

(Note: Virginia Code Section 32.1-45.2; effective July 1, 1992, Testing for Bloodborne Pathogens. Establishes a mechanism for testing for certain bloodborne pathogens when a possible exposure to such pathogens involving public safety employees occurs. Employees of public safety agencies are required to notify immediately their agencies of any possible exposure prone incident. Other persons involved in such possible exposure prone incident may request the agency to review the facts. The agency will then obtain medical consultation and review the facts and determine whether it is reasonable to believe that an exposure prone incident may have occurred. If the agency concludes that an exposure prone incident may have occurred, the person or employee whose body fluids were involved will be requested to consent to testing for Hepatitis B virus and human immunodeficiency virus and disclosure of test results. If the person or employee involved in the possible exposure prone

incident is deceased, the agency will request the custodian of the remains to preserve a blood sample and will request consent from the decedent's next of kin. If consent is refused, the agency or the employee or other person may petition the relevant general district court to determine whether an exposure prone incident has occurred and to order testing and disclosure of test results. To order testing, the court must find by a preponderance of the evidence that an exposure prone incident has occurred and must be advised by the Commissioner of Health or his designee in making this finding. The hearing will be closed and the record sealed. The order of the district court may be appealed de novo to the circuit court of the same jurisdiction within ten days. The circuit court must also be advised by the Commissioner or his designee and any order of the such court will be final and nonappealable. Disclosure is made to the district health director who is charged with informing the parties of the test results and counseling them as required by Section 32.1-37.2. Test results are confidential. This provision also provides that persons known or suspected to be positive for infection with Hepatitis B or HIV cannot be refused services for that reason by any public safety agency personnel and that no new duty is created. Definitions of "exposure prone incident" and "public safety agency" are included. Virtually any entity with law enforcement powers, including campus police departments, as well as fire safety organizations, and correctional institutions are included pursuant to the definition of "public safety agency." This provision will expire on July 1, 1994. Law enforcement officers allege that, as first responders to traffic accidents as well as criminal activity, they are at risk for possible exposure to Hepatitis B and HIV. Exposure to these two viruses may occur in the same manner; however, Hepatitis B is more infectious than HIV. It must be noted that there are, to our knowledge, no known cases of work-related transmission of HIV among public safety agency personnel.

The exposed employee's blood shall be collected as soon as feasible after consent is obtained, and tested for HBV and HIV serological status. If the employee consents to baseline blood collection, but does not give consent at that time for HIV serologic testing, the sample shall be preserved for at least ninety (90) days. If, within ninety (90) days of the exposure incident, the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible.

The exposed employee will be offered post-exposure prophylaxis, when medically indicated, as recommended by the U. S. Public Health Service. (See Appendix C.) The exposed employee will be offered counseling and medical evaluation of any reported illnesses.

The following information will be provided to the healthcare professional evaluating an employee after an exposure:

- a copy of 1910.1030 bloodborne pathogens standard;
- a description of the exposed employee's duties as they relate to the exposure incident;
- the documentation of the route(s) 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.

(name of Employer) shall obtain and provide the employee with a copy of the evaluating healthcare professional's written opinion within fifteen (15) days of the completion of the evaluation. The written opinion will be limited to the following information:

- the employee has been informed of the results of the evaluation;
- the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.

NOTE: All Other Findings Shall Remain Confidential And Shall Not Be Included In The Written Report.

VI. EMPLOYEE TRAINING

Employees will be trained regarding bloodborne pathogens at the time of initial assignment to tasks where exposure may occur and annually, during work hours. Additional training will be provided whenever there are changes in tasks or procedures which affect employees' occupational exposure; this training will be limited to the new exposure situation.

The training approach will be tailored to the educational level, literacy, and language of the employees. The training plan will include an opportunity for employees to have their questions answered by the trainer.

Name of person/position is responsible for arranging and/or conducting training. (A variety of methods may be used; e. g. lecture, demonstration, videotapes, and written materials.)

The following content will be included:

1. explanation of the bloodborne pathogen standard;
2. general explanation of the epidemiology, modes of transmission and symptoms of bloodborne diseases;
3. explanation of this exposure control plan and how it will be implemented;
4. procedures which may expose employees to blood or other potentially infectious materials;
5. control methods that will be used at this facility to prevent/reduce the risk of exposure to blood or other potentially infectious materials;
6. explanation of the basis for selection of personal protective equipment;
7. information on the hepatitis B vaccination program including the benefits and safety of vaccination;
8. information on procedures to use in an emergency involving blood or other potentially infectious materials;

9. what procedure to follow if an exposure incident occurs;
10. explanation of post-exposure evaluation and follow-up procedures;
11. an explanation of warning labels and/or color coding.

VII. RECORDKEEPING PROCEDURES

Procedures are in place for maintaining both medical and training records. If Name of Employer should cease business, and there is no successor employer to receive and retain the records for the prescribed period, then the Director of the National Institute for Occupational Safety and Health (NIOSH) will be notified at least three months prior to the disposal of records. The records will be transmitted to NIOSH, if required by the Director, within the three month period.

Medical Recordkeeping

A medical record will be established and maintained for each employee with exposure. The record shall be maintained for the duration of employment plus thirty (30) years in accordance with 29 CFR 1910.20. (give name/position responsible for maintaining medical records.)

The record shall include the following:

- name and social security number of the employee;
- a copy of the employee's hepatitis B vaccination status with dates of hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination;
- a copy of examination results, medical testing, and any follow-up procedures;
- a copy of the healthcare professional's written opinion;
- a copy of the information provided to the healthcare professional who evaluates the employee for suitability to receive hepatitis B vaccination prophylactically and/or after an exposure incident.

Confidentiality of Medical Records

The record will be kept confidential. The contents will not be disclosed or reported to any person within or outside the workplace without the employee's express written consent, except as required by law or regulation. Employee medical records required under 1910.1030 shall be provided upon request for examination and copying to the subject employee and to the Commissioner of the Virginia Department of Labor and Industry in accordance with 29 CFR 1910.20.

Training Records

Training records shall be maintained for three (3) years from the date on which the training occurred.

The following information shall be included:

- dates of training sessions;
- contents or a summary of the training sessions;
- names and qualifications of trainer(s); and
- names and job titles of all persons attending.

(See appendix D for a sample form which may be used to collect information about training.)

Training records shall be provided upon request for examination and copying to employees, to employee representatives, and to the Commissioner of the Virginia Department of Labor and Industry in accordance with 29 CFR 1910.20.

This Exposure Control Plan
was Prepared by:

Date Prepared:

Review Date: