

FIRE SERVICE REFERENCE BOOKLET 7

MODEL FIRE DEPARTMENT EXPOSURE CONTROL PLAN

Reviewed December 2023



STATE OF NEW JERSEY

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MODEL FIRE DEPARTMENT EXPOSURE CONTROL PLAN
Bloodborne Pathogens Standard
29 CFR Part 1910.1030

The Bloodborne Pathogens Standard was published in the New Jersey Register on July 6, 1993 and applies to all employees with occupational exposures to blood or other potentially infectious materials. Section (c) requires that each employer, having an employee(s) with occupational exposure, establish a written Exposure Control Plan (ECP) designed to eliminate or minimize such exposure. This ECP must have been written and implemented by December 3, 1993.

Fire departments and most other emergency response organizations are required to be in compliance with these regulations.

To assist you in your efforts to comply with the Bloodborne Pathogens Standard, the New Jersey Division of Fire Safety has provided you with this *Model Fire Department Exposure Control Plan*. This plan was developed by the Department of Health (NJDOH), Public Employees Occupational Safety and Health (PEOSH) Program. The Model is written in a clear, concise manner and contains relevant reference materials, samples of all forms needed to fulfill recordkeeping requirements, and other appropriate information. The Model is designed to guide you through the compliance process. All references in this Model to requirements of the Occupational Safety and Health Administration (OSHA) are equally applicable in New Jersey to the public and private sector. The term "employer" contained herein will, in the case of a fire department, refer to the local government entity. The terms "employee" and "worker" refer to fire department members, career *and* volunteer. After your ECP is developed and implemented, the plan will help protect employees from occupational exposure to Hepatitis B Virus (HBV), Human Immunodeficiency Virus (HIV), as well as other bloodborne pathogens within their workplace.

As its title indicates, the *Model Fire Department Exposure Control Plan* is intended to serve as a compliance guide to the OSHA Bloodborne Pathogens Standard (Appendix Q). A central component of your compliance effort will be the development of an ECP tailored to your department. It is important to note that not all aspects of this model will apply to your fire department depending upon the department's specific operations. At a minimum, the plan should include the following elements:

- statement of employer policy
- designation of employees responsible for implementation of various plan elements
- determination of employee exposure
- implementation of various methods of exposure control, including:
 - ◆ universal precautions
 - ◆ engineering controls and work practices
 - ◆ personal protective equipment
 - ◆ training
 - ◆ Hepatitis B Vaccination
 - ◆ post-exposure evaluation and follow-up
 - ◆ housekeeping
 - ◆ labeling
- employer recordkeeping

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Before proceeding to use this document, you should have read the Bloodborne Pathogens Standard found in Appendix Q. After you have familiarized yourself with the Standard, follow the model control plan in the order in which it is presented, adding information specific to your worksite wherever indicated. The model plan must be completed in its entirety if you wish to be assured that your ECP complies with the standard. You will note that in several places within the model plan, it will be necessary for you to exercise judgement as to how you will proceed.

The *Employer Guide and Model Exposure Control Plan* also contains forms that may be used to comply with recordkeeping requirements of the Standard. Information pamphlets, highlights of the program's requirements, and a resource list are also provided to assist employers with the training provisions of the Standard.

The New Jersey Department of Health, PEOSH Program, would like to extend its gratitude to the New York Department of Labor, Division of Safety and Health who developed the original Model and was gracious enough to allow the NJDOH, PEOSH Program to use, modify and distribute it to public sector employers. The only modifications made to the original Model were changes to phone numbers, addresses, or New York legislation in order to make it specific for New Jersey.

If you have any questions regarding the Model, the Bloodborne Pathogens Standard, or need further assistance, please contact the NJDOH, PEOSH Program, at (609) 984-1863.

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INTRODUCTION

Acquired Immune Deficiency Syndrome (AIDS) and Hepatitis B warrant serious concern for workers occupationally exposed to blood and certain other body fluids that contain bloodborne pathogens. It is estimated nationally that more than 5.6 million workers in health care and public safety occupations could be potentially exposed. In recognition of these potential hazards, the New Jersey Public Employees Occupational Safety and Health Act has adopted the Occupational Safety and Health Administration (OSHA) regulation [Bloodborne Pathogens 29 Code of Federal Regulations (CFR) 1910.1030] to help protect New Jersey Public workers from these health hazards.

The major intent of this regulation is to prevent the transmission of bloodborne diseases within potentially exposed workplace occupations. The standard is expected to reduce and prevent employee exposure to the Human Immunodeficiency Virus (HIV), Hepatitis B Virus (HBV) and other bloodborne diseases. The Occupational Safety and Health Administration (OSHA) estimates the standard could prevent more than 200 deaths and about 9,000 infections per year from HBV alone. The standard requires that employers follow universal precautions, which means that all blood or other potentially infectious materials must be treated as being infectious for HIV and HBV. Each employer must determine the application of universal precautions by performing an employee exposure evaluation. If employee exposure is recognized, as defined by the standard, then the standard mandates a number of requirements. One of the major requirements is the development of an Exposure Control Plan, which mandates engineering controls, work practices, personal protective equipment, HBV vaccinations and training. The standard also mandates practices and procedures for housekeeping, medical evaluations, hazard communication, and recordkeeping.

POLICY

The _____ is committed to provide a safe and healthful work environment for our entire staff. In pursuit of this endeavor, the following Exposure Control Plan (ECP) is provided to eliminate or minimize occupational exposure to bloodborne pathogens in accordance with OSHA Bloodborne Pathogens Standard, Title 29 Code of Federal Regulations 1910.1030.

The ECP is a key document to assist our firm in implementing and ensuring compliance with the standard, thereby protecting our employees. This ECP includes:

- I. Employee exposure determination
- II. The procedures for evaluating the circumstances surrounding an exposure incident, and
- III. The schedule and method for implementing the specific sections of the standard, including:
 - Methods of compliance
 - Hepatitis B vaccination and post-exposure follow-up
 - Training and communication of hazards to employees
 - Recordkeeping

PROGRAM ADMINISTRATION

- _____ is (are) responsible for the implementation of the ECP.
_____ will maintain and update the written ECP at least annually and whenever necessary to include new or modified tasks and procedures.
- Those employees who are reasonably anticipated to have contact with or exposure to blood or other potentially infected materials are required to comply with the procedures and work practices outlined in this ECP.
- _____ will have the responsibility for written housekeeping protocols and will ensure that effective disinfectants are purchased.
- _____ will be responsible for ensuring that all medical actions required are performed and that appropriate medical records are maintained.
- _____ will be responsible for training, documentation of training, and making the written ECP available to employees, OSHA and NIOSH representatives.
- _____ will maintain and provide all necessary personal protective equipment (PPE), engineering controls (i.e., sharp containers, etc.), labels and red bags as required by the standard. _____ will ensure that adequate supplies of the aforementioned equipment are available.

=====
Note to Employer: The names or job titles of the Program Administrators can be used to simplify compliance. In a small departments the responsibilities for the program may be held by one individual. In this case these items can be combined.
=====

EMPLOYEE EXPOSURE DETERMINATION

I. EMPLOYEE EXPOSURE DETERMINATION

=====
Note to Employer: You are not required to complete both sections that follow; you may only complete the section that applies.
=====

A. As part of the exposure determination section of our ECP, the following is a list of all job classifications at our establishment in which **all** employees have occupational exposure:

-

-

B. The following is a list of job classifications in which **some** employees at our establishment have occupational exposure. Included are a list of tasks and procedures in which occupational exposure may occur for these individuals.

-

-

All exposure determinations for A and B were made without regard to the use of Personal Protective Equipment (PPE).

=====
Note to Employer: Examples of category B would include custodians who occasionally clean contaminated equipment and laundries where some workers are assigned the task of handling contaminated laundry. Firms are also required to notify contract employers (i.e., plumber, etc.) of potential contact with blood or other potentially infectious materials so they can take appropriate precautions. Refer to Appendix A for definition of "occupational exposure."
=====

If needed, additional job classification lists and task sheets for Section A and B are provided in the Appendix Section (see Appendix A-1 and A-2)

=====
Note to Employer: "Good Samaritan" acts which result in exposure to blood or other potentially infectious materials from assisting a fellow employee (i.e., assisting a co-worker with nosebleed, giving CPR or first aid) are not included in the Bloodborne Standard. OSHA, however, encourages employers to offer Post-Exposure Evaluation and Follow-up in such cases.
=====

EFFECTIVE DATES

II. EFFECTIVE DATES:

The Bloodborne Pathogens Standard was published in the New Jersey Register on July 6, 1993. The Standard including Universal Precautions became operative on October 4, 1993. The dates for completing the different parts of the Standard are:

Exposure Control Plan
December 3, 1993

Recordkeeping
January 6, 1994

Information and Training
January 6, 1994

Methods of Compliance (Except Universal Precautions)
February 6, 1994

Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-Up
February 6, 1994

Labels and Signs
February 6, 1994

The methods of implementation of these elements of the Standard are discussed in the subsequent pages of this Exposure Control Plan.

EXPOSURE CONTROL PLAN

III. METHODS OF IMPLEMENTATION AND CONTROL

1.0 Universal Precautions

- 1.1 All employees will utilize Universal Precautions. Universal Precautions is an infection control method which requires employees to assume that all human blood and specified human body fluids are infectious for HIV, HBV and other bloodborne pathogens (see Appendix A) and must be treated accordingly.

2.0 Exposure Control Plan (ECP)

- 2.1 Employees covered by the Bloodborne Pathogens Standard will receive an explanation of this ECP during their initial training session. It will also be reviewed in their annual refresher training. All employees will have an opportunity to review this Plan at any time during their work shifts by contacting _____. Employees seeking copies of the Plan may contact _____. A copy of the Plan will be made available free of charge and within 15 days of the request.

- 2.2 _____ will also be responsible for reviewing and updating the ECP annually or sooner if necessary to reflect any new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure.

3.0 Engineering Controls and Work Practices

- 3.1 Engineering controls and work practice controls will be used to prevent or minimize exposure to bloodborne pathogens. The specific engineering and work practice controls we will use and where they will be used are listed below:

- _____
- _____
- _____
- _____

ENGINEERING CONTROLS

New technology for needles and sharps will be evaluated and implemented whenever possible to further prevent accidental needle sticks and cuts. Our engineering controls (i.e., sharps containers, etc.) will be inspected and maintained or replaced by

every _____.

=====
Note to Employer: State a defined schedule and the person responsible for examining the effectiveness of the engineering controls used. A time period must also be stated for the inspection of sharps containers to ensure that the containers are not overloaded. It is recommended that a margin of safety be incorporated when determining this inspection interval.
=====

Examples of engineering controls include, but are not limited to:

- self-sheathing needles
- puncture-resistant disposal containers for contaminated sharps, orthodontia wire, or broken glass
- mechanical needle recapping devices
- bio-safety cabinets
- ventilated laboratory hoods

Examples of work practice controls include, but are not limited to:

- providing readily accessible hand washing facilities
- washing hands immediately or as soon as feasible after removal of gloves
- at non-fixed sites (i.e., emergency scenes, mobile blood collection sites) which lack hand washing facilities, providing interim hand washing measures, such as antiseptic towelettes and paper towels. Employees can later wash their hands with soap and water as soon as feasible
- washing body parts as soon as possible after skin contact with blood or other potentially infectious materials occurs
- prohibiting the recapping or bending of needles
- shearing or breaking contaminated needles is prohibited
- labeling
- equipment decontamination
- prohibiting eating, drinking, smoking, applying cosmetics or lip balm and handling contact lenses in work area where there is a likelihood of occupational exposure
- prohibiting food and drink from being kept in refrigerators, freezers, shelves, cabinets or on counter tops or bench tops where blood or other potentially infectious materials are present
- requiring that all procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, splattering, and generation of droplets of these substances
- placing specimens of blood or other potentially infectious materials in a container which prevents leakage during collection, handling, processing, storage, transport or shipping
- examining equipment which may become contaminated with blood or other potentially infectious materials prior to servicing or shipping and decontaminating such equipment as necessary. Items will be labeled per the standard if not completely decontaminated

PERSONAL PROTECTIVE EQUIPMENT

4.0 Personal Protective Equipment (PPE)

4.1 Personal protective equipment must also be used if occupational exposure remains after instituting engineering and work practice controls, or if the controls are not feasible. Training will be provided by _____ in the use of the appropriate personal protective equipment for employees' specific job classifications and tasks/procedures they will perform.

Additional training will be provided, whenever necessary, such as if an employee takes a new position or if new duties are added to their current position.

Appropriate personal protective equipment is required for the following tasks; the specific equipment to be used is listed after the task:

Task	Equipment
- _____	_____
- _____	_____
- _____	_____
- _____	_____

=====
Note to Employer: The employer should decide how to make PPE "readily accessible" for employees' use. Specify in writing what will be issued, how, when and who will provide the PPE. For large firms which might have numerous tasks present, a summary of the tasks and required PPE can be used. The important part to remember is that it is imperative that employees wear appropriate protective body coverings such as gowns, aprons, caps, and boots when occupational exposure is anticipated. The type and characteristics will depend upon the task and degree of exposure anticipated.
=====

PPE items include:

- gloves
- gowns
- laboratory coats
- face shields
- masks
- eye protection (splash-proof goggles, safety glasses with side shields)
- resuscitation bags and mouthpieces

=====
Note to Employer: Employers with first aid responders are reminded to have quick access to kits having impervious gloves, resuscitation bags or mouthpieces, eye protection, aprons, disinfectant towelettes for hand washing, and red bags or biohazard- labeled bags.
=====

4.2 As a general rule, all employees using PPE must observe the following precautions:

PERSONAL PROTECTIVE EQUIPMENT (continued)

- Wash hands immediately or as soon as feasible after removal of gloves or other personal protective equipment
- Remove protective equipment before leaving the work area and after a garment becomes contaminated.
- Place used protective equipment in appropriately designated areas or containers when being stored, washed, decontaminated, or discarded.

=====

Note to Employer: Designate areas or containers which are to be used and their location:

=====

- Wear appropriate gloves when it can be reasonably anticipated that you may have contact with blood or other potentially infectious materials and when handling or touching contaminated items or surfaces. Replace gloves if torn, punctured, contaminated, or if their ability to function as a barrier is compromised.
- Following any contact of body areas with blood or any other infectious materials, you must wash your hands and any other exposed skin with soap and water as soon as possible. Employees must also flush exposed mucous membranes (eyes, mouth, etc) with water.
- Utility gloves may be decontaminated for reuse if their integrity is not compromised.
 The decontamination procedure will consist of

-
- Discard utility gloves when they show signs of cracking, peeling, tearing, puncturing, or deterioration.
 - Never wash or decontaminate *disposable* gloves for reuse or before disposal.
 - Wear appropriate face and eye protection such as a mask with glasses with solid side shields or a chin-length face shield when splashes, sprays, splatters, or droplets of blood or other potentially infectious materials pose a hazard to the eye, nose, or mouth.
 - If a garment is penetrated by blood and other potentially infectious materials, the garment(s) must be removed immediately or as soon as feasible. If a pullover scrub (as opposed to scrubs with snap closures) becomes minimally contaminated, employees should be trained to remove the pullover scrub in such a way as to avoid contact with the outer surface; e.g., rolling up the garment as it is pulled toward the head for removal. However, if the amount of blood exposure is

such that the blood penetrates the scrub and contaminates the inner surface, not only is it impossible to remove the scrub without exposure to blood, but the penetration itself would constitute exposure. It may be prudent to train employees to cut such a contaminated scrub to aid removal and prevent exposure to the face.

- Repair and/or replacement of PPE will be at no cost to employees.

Refer to Appendix I for additional information on PPE.

TRAINING

5.0 Training

5.1 All employees who have or are reasonably anticipated to have occupational exposure to bloodborne pathogens will receive training conducted by _____.

_____ will provide training on the epidemiology of bloodborne pathogen diseases. OSHA pamphlet "Occupational Exposure to Bloodborne Pathogens" and Fact Sheets located in the Appendix Section and _____ will be used to inform employees of the epidemiology, symptoms, and transmission of bloodborne diseases. In addition, the training program will cover, at a minimum, the following elements:

- A copy and explanation of the standard
- Epidemiology and symptoms of bloodborne pathogens
- Modes of transmission
- Our Exposure Control Plan and how to obtain a copy
- Methods to recognize exposure tasks and other activities that may involve exposure to blood
- Use and limitations of Engineering Controls, Work Practices, and PPE
- PPE - types, use, location, removal, handling, decontamination, and disposal
- PPE - the basis for selection
- Hepatitis B Vaccine - offered free of charge. Training will be given prior to vaccination on its safety, effectiveness, benefits, and method of administration (See Appendix O)
- Emergency procedures - for blood and other potentially infectious materials
- Exposure incident procedures
- Post-exposure evaluation and follow-up
- Signs and labels - and/or color coding
- Questions and answer session

=====
Note to Employer: The training materials, such as overheads, pictures, work sheets, pamphlets, etc., can be made a part of the ECP.
=====

An Employee Education and Training Record (see Appendix B) will be completed for each employee upon completion of training. This document will be kept with the employee's records at _____.

TRAINING PROGRAM ELEMENTS

Highlights of Training Program Elements

- Contents of standard
- Epidemiology of bloodborne diseases
- Exposure Control Plan
- Job duties with exposure
- Types of control
- Protective equipment
- Hepatitis B vaccination program
- Emergency procedures
- Post-exposure procedures
- Signs/labels/(color coding)
- Question and answer session

HEPATITIS B VACCINATION

6.0 Hepatitis B Vaccination

6.1 _____ will provide information on Hepatitis B vaccinations addressing its safety, benefits, efficacy, methods of administration and availability. A general overview of these considerations is given in Appendix L for review. The Hepatitis B vaccination series will be made available at no cost within 10 days of initial assignment of employees who have occupational exposure to blood or other potentially infectious materials unless:

- the employee has previously received the series
- antibody testing reveals that the employee is immune
- medical reasons prevent taking the vaccination; or
- the employee chooses not to participate

All employees are strongly encouraged to receive the Hepatitis B vaccination series. However, if an employee chooses to decline HB vaccination, then the employee must sign a statement to this effect.

Employees who decline may request and obtain the vaccination at a later date at no cost. Documentation of refusal of the HB vaccination (see Appendix C1) will be kept in _____ with the employee's other medical records.

Appendix C is an optional form that may be used to record the employee vaccination series information.

=====
Note to Employer: To ensure employees are aware of the importance of the Hepatitis B vaccination, it is necessary to thoroughly discuss the efficacy, safety, methods of administration, benefits of the vaccination, the fact that it is given at no cost, and during work hours.
=====

Highlights of Hepatitis B Vaccination Other Requirements

- Participation in pre-screening is not a prerequisite for receiving the Hepatitis B vaccination.
- Hepatitis B vaccination provided even if employee declines but later accepts treatment.
- Employee must sign statement when declining HB vaccination.
- Vaccination administered in accordance with United States Public Health Service (USPHS) recommended protocol.
- HB vaccination booster doses must be available to employees if recommended by USPHS.

POST EXPOSURE EVALUATION

7.0 Post Exposure Evaluation and Follow-up and Procedures for Reporting, Documenting and Evaluating the Exposure

7.1 Should an exposure incident occur contact _____ immediately. Each exposure must be documented by the employee on an "Exposure Report Form" (see Appendix D). _____ will add any additional information as needed.

An immediately available confidential medical evaluation and followup will be conducted by _____. The following elements will be performed:

- Document the routes of exposure and how exposure occurred.
- Identify and document the source individual (see Appendix E), unless the employer can establish that identification is infeasible or prohibited by State or local law (See Note #1).
- Obtain consent (See Note #2) and test source individual's blood as soon as possible to determine HIV and HBV infectivity and document the source's blood test results.
- If the source individual is known to be infected with either HIV or HBV, testing need not be repeated to determine the known infectivity.
- Provide the exposed employee with the source individual's test results and information about applicable disclosure laws and regulations concerning the source identity and infectious status.
- After obtaining consent, collect exposed employee's blood as soon as feasible after the exposure incident and test blood for HBV and HIV serological status.
- If the employee does not give consent for HIV serological testing during the collection of blood for baseline testing, preserve the baseline blood sample for at least 90 days. (See Note #3).

=====
Note to Employer: Appendix D "Exposure Incident Report" and Appendix E "Request for Source Individual Evaluation" and Appendix F "Employee Exposure Follow-Up Record" (see Note #4) will be provided to the employee so they may bring them along with any additional relevant medical information to the medical evaluation. Original copies of these appendixes will be maintained with employee's medical records.
=====

_____ will review the circumstances of the exposure incident to determine if procedures, protocols and/or training need to be revised.

=====
Note to Employer:

Note #1 New Jersey Law (N.J.S.A. 26-5C et seq.) and Regulation (N.J.A.C. 8:57-2) requires information about AIDS and HIV to be kept confidential. While the law requires reporting of positive HIV results to the State Health Department, the law strictly

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limits disclosure of HIV-related information. When disclosure of HIV-related information is authorized by a signed release, the person who has been given the information MUST keep it confidential. Redisclosure may occur ONLY with another authorized signed release.

Note #2 If, during this time, the exposed employee elects to have the baseline sample tested, testing shall be done as soon as feasible.

Note #3 Appendixes D, E, and F are optional forms which have been provided to assist employers with gathering information that is required by the standard. If an employer chooses not to use these forms, this information must still be provided and recorded in accordance with the Standard. Also note that HIV Confidential Case Report form and/or the AIDS Adult Confidential Case Report form, as well as, the HIV Testing Policy information applicable to New Jersey public sector employers can be obtained by contacting:

The New Jersey State Department of Health Data Analysis Unit
CN 363
Trenton, New Jersey 08625-0363 (609) 984-6204

Note #4 Following an exposure incident, prompt medical evaluation and prophylaxis is imperative. Timeliness is, therefore, an important factor in effective medical treatment.

POST EXPOSURE EVALUATION

Highlights of Post Exposure Evaluation and Follow-Up Requirements

- Documentation of exposure routes and how exposure incident occurred
- Identification and documentation of source individual's infectivity, if possible
- Collection and testing of employee's blood for HBV and HIV serological status (employee's consent required)
- Post-exposure prophylaxis when medically indicated
- Counseling
- Evaluation of reported illnesses

HEALTH CARE PROFESSIONALS

8.0 Health Care Professionals

8.1 _____ will ensure that health care professionals responsible for employee's HB vaccination and post-exposure evaluation and follow-up be given a copy of the OSHA Bloodborne Standard. _____ will also ensure that the health care professional evaluating an employee after an exposure incident receives the following:

- a description of the employee's job duties relevant to the exposure incident.
- route(s) of exposure.
- circumstances of exposure.
- if possible, results of the source individual's blood test.
- relevant employee medical records, including vaccination status.

8.2 Healthcare Professional's Written Opinion

_____ will provide the employee with a copy of the evaluating healthcare professional's written opinion within 15 days after completion of the evaluation.

For HB vaccinations, the healthcare professional's written opinion will be limited to whether the employee requires or has received the HB vaccination.

The written opinion for post-exposure evaluation and follow-up will be limited to whether or not the employee has been informed of the results of the medical evaluation and any medical conditions which may require further evaluation and treatment.

All other diagnoses must remain confidential and not be included in the written report to our firm.

=====

Note to Employer: If the employer is also the health care professional, the employer must ensure that the results of the employee's post-exposure evaluation remain confidential from his/her co-workers.

=====

HOUSEKEEPING

9.0 Housekeeping

9.1 _____ has developed and implemented a written schedule for cleaning and decontaminating work surfaces as indicated by the standard.

Cleaning Schedule

Area	Scheduled Cleaning (Day/Time)	Cleaners and Disinfectants Used	Specific Instructions

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Note to Employer: Include a housekeeping schedule and method of decontamination above. Include location of cleanup and decontamination supplies. A list of approved sterilants can be obtained from the Environmental Protection Agency (EPA) at (800-447-6349). A preformatted schedule sheet (Appendix N) is provided in the Appendix Section of this kit if additional space is required.

=====

=====

Note to Employer: To further assist employers in developing a written housekeeping schedule, the following procedures are provided as examples. To ensure a complete working document, it is recommended that the written task be as specific as possible.

=====

- Decontaminate work surfaces with an appropriate disinfectant after completion of procedures, immediately when overtly contaminated, after any spill of blood or other potentially infectious materials, and at the end of the work shift when surfaces have become contaminated since the last cleaning.
- Remove and replace protective coverings such as plastic wrap and aluminum foil when contaminated.
- Inspect and decontaminate, on a regular basis, reusable receptacles such as bins, pails, and cans that have a likelihood for becoming contaminated. When contamination is visible, clean and decontaminate receptacles immediately, or as soon as feasible.

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- Always use mechanical means such as tongs, forceps, or a brush and a dust pan to pick up contaminated broken glassware; never pick up with hands even if gloves are worn.

HOUSEKEEPING (continued){tc \\1 "HOUSEKEEPING (continued)}

- Store or process reusable sharps in a way that ensures safe handling.
- Place regulated waste in closable and labeled or color-coded containers. When storing, handling, transporting or shipping, place other regulated waste in containers that are constructed to prevent leakage.
- When discarding contaminated sharps, place them in containers that are closable, puncture-resistant, appropriately labeled or color-coded, and leak-proof on the sides and bottom.
- Ensure that the sharps containers are easily accessible to personnel and located as close as feasible to the immediate area where sharps are used or can be reasonably anticipated to be found. Sharps containers also must be kept upright throughout use, replaced routinely, closed when moved, and not allowed to overfill.
- Never manually open, empty, or clean reusable contaminated sharps disposal containers. (See Appendix P - New Jersey Department of Environmental Protection Regulations)
- Discard all regulated waste according to federal, state, and local regulations, i.e., liquid or semi-liquid blood or other potentially infectious material; items contaminated with blood or other potentially infectious materials that would release these substances in a liquid or semi-liquid state if compressed; items caked with dried blood or other potentially infectious materials and capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

9.2 Laundry

The following contaminated articles will be laundered:

- _____
- _____
- _____
- _____

Laundering will be performed by _____ at _____.

The following requirements must be met, with respect to contaminated laundry:

- Handle contaminated laundry as little as possible and with a minimum of agitation.
- Use appropriate personal protective equipment when handling contaminated laundry.

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- Place wet contaminated laundry in leak-proof, labeled or color-coded containers before transporting.
- Bag contaminated laundry at its location of use.
- Never sort or rinse contaminated laundry in areas of its use.

- *Use red laundry bags or those marked with the biohazard symbol unless universal precautions are in use at the facility and all employees recognize the bags as contaminated and have been trained in handling the bags.
-
- *All generators of laundry must have determined if the receiving facility uses universal precautions. If universal precautions are not used, then clearly mark laundry sent off-site with orange biohazard labels or use red bags. Leak proof bags must be used when necessary to prevent soak-through or leakage.
-
- When handling and/or sorting contaminated laundry, utility gloves and other appropriate personal protective equipment (i.e., aprons, mask, eye protection) shall be worn.
-
- Laundries must have sharps containers readily accessible due to the incidence of needles and sharps being unintentionally mixed with laundry.
-
- Linen soiled with blood or body fluids should be placed and transported in bags that prevent leakage. If hot water is used, linen should be washed with detergent in water at least 140F - 160F for 25 minutes. If low-temperature (<140F) laundry cycles are used, chemicals suitable for low-temperature washing at proper use concentration should be used.
-
- *NOTE: For these items specify below which labeling system, red bags or biohazard labeling, will be used for laundering.
-
-
-
- =====
- Note to Employer: Disposable protective clothing can be used to eliminate or greatly reduce the need for laundering.
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HOUSEKEEPING (continued){tc \11 "HOUSEKEEPING (continued)}

LABELING

10.0 Labeling

10.1 The following labeling method(s) will be used at our facility.

-

-

_____ will ensure warning labels are affixed or red bags are used as required. Employees are to notify _____ if they discover unlabeled regulated waste containers.

=====
Note to Employer: The employer must specify which warning methods are used and communicate this information to all employees. The standard requires that fluorescent orange or orange-red warning labels be attached to: (1) containers of regulated waste; (2) refrigerators and freezers containing blood and other potentially infectious materials; (3) sharps disposal containers; (4) laundry bags and containers; (5) contaminated equipment for repair (portion contaminated); and (6) other containers used to store, transport, or ship blood or other potentially infectious materials. These labels are not required when: (1) red bags or red containers are used; (2) containers of blood, blood components, or blood products are labeled as to their contents and have been released for transfusion or other clinical use; and (3) individual containers of blood or other potentially infectious materials are placed in a labeled container during storage, transport, shipment or disposal. The warning label must be fluorescent orange or orange-red, contain the biohazard symbol and the word "BIOHAZARD" (See Appendix H) in a contrasting color, and be attached to each object by string, wire, adhesive, or other method to prevent loss or unintentional removal of the label.
=====

RECORDKEEPING

11.0 Recordkeeping

11.1 Medical Records

Medical records are maintained for each employee with occupational exposure in accordance with 29 CFR 1910.20.

_____ is responsible for maintenance of the required medical records and they are kept at:

NOTE: Refer to the Appendix Section for copies of applicable medical record forms.

In addition to the requirements of 29 CFR 1910.20, the medical record will include:

- The name and social security number of employee;
- a copy of the employee's Hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination;
- a copy of all results of examinations, medical testing, and follow-up procedures as required by the standard;
- a copy of all healthcare professional's written opinion(s) as required by the

standard.

All employee medical records will be kept confidential and will not be disclosed or reported without the employee's express written consent to any person within or outside the workplace except as required by the standard or as may be required by law.

Employee medical records shall be maintained for at least the duration of employment plus 30 years in accordance with 29 CFR 1910.20.

Employee medical record shall be provided upon request of the employee or to anyone having written consent of the employee within 15 working days.

11.2 Training Records

Bloodborne pathogen training records will be maintained by _____ at _____ (see Appendix B).

The training record shall include:

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

Training records will be maintained for a minimum of three (3) years from the date on which the training occurred.

FIRE SERVICE BOOKLET 7 - MODEL FIRE DEPARTMENT EXPOSURE CONTROL PLAN

Employee training records will be provided upon request to the employee or the employee's

RECORDKEEPING (continued)

authorized representative within 15 working days.

11.3 Transfer of Records

If _____ ceases to do business and there is no successive employer to receive and retain the records for the prescribed period, the employer shall notify the Director of the National Institute for Occupational Safety and Health (NIOSH) at least three (3) months prior to scheduled record disposal and prepare to transmit them to the Director.

MEDICAL RECORDS

Highlights of Medical Records

- Employee name and social security number
- Employee Hepatitis B vaccination status
- Medical testing and post-exposure follow-up results
- Healthcare Professional's written opinion
- Information provided to the healthcare professional

TRAINING RECORDS

Highlights of Training Records

- Training dates
- Training session content or summary
- Names and qualifications of trainers
- Names and job titles of all trainees

FIRST AID PROVIDERS

This section only applies to employees who are designated to render first aid assistance, but this assistance is not their primary work assignment. First aid providers who are in this collateral duty category at this facility are listed below for easy reference and also in Section B of the Employer Exposure Determination on page five.

Designated First Aid Providers

•

•

•

•

Our facility has decided to:
(check box for firm's specific policy)

- offer hepatitis B vaccination to the first aid provider after a first aid incident.
- offer pre-exposure vaccination.

In the event of a first aid incident where blood or other potentially infectious materials (OPIM) are present, the employee(s) providing the first aid assistance is (are) instructed to report to _____ before the end of their workshift.

_____ will maintain a report (appendix D can be used) which describes name of the first aider, date, time and description of incident.

_____ will ensure that any first aider that desires the vaccine series after an incident involving blood or OPIM will receive it as soon as possible, but no later than twenty four hours after the incident.

_____ will train first aid providers on the specifics of the reporting procedures, in addition to all the training required in Section 5.0 Training.

=====
Note to Employer: Examples of employees who may meet the above criteria include:

- Security Guards, Coaches, Bus Drivers, DPW/DOT, Office Workers, Industrial Plant Personnel, who are designated and trained to perform first aid.

Examples of employees who do not meet the criteria and must be offered the hepatitis B vaccination series include:

- Personnel who provide first aid at a first aid station, clinic, emergency response or public safety personnel, who are expected to render first aid in the normal course of their work (i.e., EMS personnel, police, firefighters).

FIRE SERVICE BOOKLET 7 - MODEL FIRE DEPARTMENT EXPOSURE CONTROL PLAN

This is not an all-inclusive list, nor does it imply that every employee in these job titles are covered. Also, as a reminder, good samaritan acts are still not covered by the Standard.

=====

APPENDIX SECTION

APPENDIX A

OCCUPATIONS AT RISK

Occupations that may involve risk from occupational exposure to blood or other potentially infectious material:

- Physician
- Physicians Assistant
- Nurse
- Phlebotomist
- Medical Examiner
- Firefighter
- Police Officer
- Emergency Medical Technician (EMT)
- First Responders
- Supervisor (performing first-aid)
- Dentist
- Dental Hygienist
- Medical Technologist
- Regulated Waste Handler
- Some laundry and housekeeping employees
- Industrial Medical Center Personnel
- Lab Workers
- Life Guards

DEFINITIONS

Before beginning a discussion of the standard there are several definitions that should be explained which specifically apply to this regulation. These definitions are also included in paragraph (b) of the standard.

- A. **Blood** - human blood, human blood components, and products made from human blood.
- B. **Bloodborne Pathogens** - pathogenic micro-organisms that are present in human blood and can infect and cause disease in humans. These pathogens include, but are not limited to, Hepatitis B virus (HBV), and Human Immunodeficiency Virus (HIV).
- C. **Contaminated** - the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.
- D. **Exposure Incident** - a specific eye, mouth, 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.
- E. **Occupational Exposure** - reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

APPENDIX A (Continued)

F. Other Potentially Infectious Materials (OPIM)

1. The following human body fluids:
 - a. semen
 - b. vaginal secretions
 - c. cerebrospinal fluid
 - d. synovial fluid
 - e. pleural fluid
 - f. pericardial fluid
 - g. peritoneal fluid
 - h. amniotic fluid
 - i. saliva in dental procedures
 - j. any body fluid visibly contaminated with blood
 - k. all body fluids in situations where it is difficult or impossible to differentiate between body fluids;
2. Any unfixed tissue or organ (other than intact skin) from a human (living or dead);
3. HIV-containing cells or tissue cultures, organ cultures, and HIV or HBV-containing cultures, medium, or other solutions; and
4. Blood, organs, or other tissue from experimental animals infected with HIV or HBV.

G. Regulated Waste -

1. Liquid or semi-liquid blood or OPIM;
2. Contaminated items that would release blood or OPIM in a liquid or semi-liquid state if compressed;
3. Items that are caked with dried blood or OPIM and are capable of releasing these materials during handling;
4. Contaminated sharps; and
5. Pathological and microbiological wastes containing blood or OPIM.

- H. **Universal Precautions** - an approach to infection control whereby all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

APPENDIX A1

**JOB CLASSIFICATIONS IN WHICH ALL EMPLOYEES HAVE
OCCUPATIONAL EXPOSURE TO BLOODBORNE PATHOGENS**

Below are listed the job classifications in our facility where **all** employees will have reasonably anticipated exposure to human blood and other potentially infectious materials:

<i>Job Title</i>	<i>Department/Location</i>

APPENDIX A2

**JOB CLASSIFICATIONS AND WORK ACTIVITIES IN
WHICH SOME EMPLOYEES HAVE
OCCUPATIONAL EXPOSURE TO BLOODBORNE PATHOGENS**

Below are listed the job classifications and work activities in our facility where **some** employees will have reasonably anticipated exposure to human blood and other potentially infectious materials:

<i>Job Title</i>	<i>Department/Location</i>	<i>Task Procedure</i>

FIRE SERVICE BOOKLET 7 - MODEL FIRE DEPARTMENT EXPOSURE CONTROL PLAN

APPENDIX B

EMPLOYEE EDUCATION & TRAINING RECORD

EMPLOYEE _____

DATE OF HIRE _____

JOB TITLE _____ DATE _____

ASSIGNED _____

INITIAL TRAINING SUBJECT SIGNATURE	DATE	LOCATION	TRAINER	EMPLOYEE
a. The Standard				
b. Epidemiology & Symptoms of Bloodborne Diseases				
c. Modes of Transmission				
d. Exposure Control Plan				
e. Recognizing Potential Exposure				
f. Use & Limitations of Exposure Control Methods				
g. Personal Protective Equipment (PPE)				
h. Selection of PPE				
i. HBV Immunization Program				
j. Emergencies involving Blood or Potentially Infectious Materials				
k. Exposure Follow -up Procedures				
l. Post Exposure Evaluation and Follow-up				
m. Signs & Labels				
n. Opportunity to Ask Questions				
ADDITIONAL EDUCATION: SUBJECT(S) SIGNATURE	DATE	LOCATION	TRAINER	EMPLOYEE
ANNUAL RETRAINING:				

FIRE SERVICE BOOKLET 7 - MODEL FIRE DEPARTMENT EXPOSURE CONTROL PLAN

SUBJECT(S) SIGNATURE	DATE	LOCATION	TRAINER	EMPLOYEE

APPENDIX C

CONFIDENTIAL

HEPATITIS B VACCINE IMMUNIZATION RECORD

Vaccine is to be administered on: _____

Elected dates: _____

First: _____

One month from elected date: _____

Six months from elected date: _____

Employee Name: _____

Date of first dose: _____

Date of second dose: _____

Date of third dose: _____

Antibody test results - pre-vaccine (optional): _____

Antibody test results - post-vaccine (optional): _____

Time interval since last injection: _____

Employee Signature: _____

APPENDIX C1

DECLINATION STATEMENT

I understand that due to my occupational exposure to blood or other potentially infectious materials, I may be at risk of acquiring Hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with Hepatitis B vaccine, at no charge to myself. However, I decline 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. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with Hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Employee Signature

Date

APPENDIX D

Side 1 of 2-sided form

EXPOSURE INCIDENT REPORT

(ROUTES AND CIRCUMSTANCES OF EXPOSURE INCIDENT)

Please Print

Date Completed _____

Employee's Name _____ SS# _____

Home Phone _____ Business Phone _____

DOB _____ Job Title _____

Employee Vaccination Status _____

Date of Exposure _____ Time of Exposure _____ am _____ pm _____

Location of Incident (Home, Street, Clinic, etc) Be Specific: _____

Nature of Incident (Auto Accident, Trauma, Medical Emergency) Be Specific:

Describe what task(s) you were performing when the exposure occurred. Be Specific:

Were you wearing personal protective equipment (PPE)? Yes _____ No _____
If yes, list _____

Did the PPE fail? Yes _____ No _____ If yes, explain how: _____

What body fluid(s) were you exposed to (blood or other potentially infectious material)? Be specific: _____

What parts of your body became exposed? Be specific: _____

Continued on back

APPENDIX D (continued)

Side 2 of 2-sided form

Continued from front

Estimate the size of the area of your body that was exposed:

For how long? _____

Did a foreign body (needle, nail, auto part, dental wires, etc.) penetrate your body?

Yes _____ No _____

If yes, what was the object? _____

Where did it penetrate your body? _____

Was any fluid injected into your body? Yes _____ No _____

If yes, what fluid? _____ How
much? _____

Did you receive medical attention? YES _____ No _____

If yes, where? _____

When _____

By whom _____

Identification of source individual(s) _____

Name(s) _____

Did you treat the patient directly? Yes _____ No _____

If yes, what treatment did you provide. Be specific: _____

Other pertinent information: _____

APPENDIX E

Request for Source Individual Evaluation

Dear (Emergency Room Medical Director, Infection Control Practitioner):

During a recent transport of a patient to your facility, one of our prehospital care providers was involved in an event which may have resulted in exposure to a Bloodborne Pathogen.

I am asking you to perform an evaluation of the source individual who was transported to your facility. Given the circumstances surrounding this event, please determine whether our prehospital care worker is at risk for infection and/or requires medical follow-up.

Attached is a "Documentation and Identification of Source Individual" form which was initiated by the exposed worker. Please complete the source individual section and communicate the findings to the designated medical provider.

The evaluation form has been developed to provide confidentially assurances for the patient and the exposed worker concerning the nature of the exposure. Any communication regarding the findings is to be handled at the medical provider level.

We understand that information relative to human immunodeficiency virus (HIV) and AIDS has specific protections under the law and cannot be disclosed or released without the written consent of the patient. It is further understood that disclosure obligates persons who receive such information to hold it confidential.

Thank you for your assistance in this very important matter.

Sincerely,

APPENDIX E FORM

DOCUMENTATION AND IDENTIFICATION OF SOURCE INDIVIDUAL

Name of Exposed Employee _____

Name and Phone Number of Medical Provider Who Should be Contacted:

Incident Information

Date: _____

Name or Medical Record Number of the Individual Who is the Source of the Exposure:

Nature of the Incident

_____ Contaminated Needlestick Injury

_____ Blood or Bodyfluid Splash Onto Mucous Membrane or Non-Intact Skin

Report of Source Individual Evaluation

Chart Review By _____ Date: _____

Source Individual Unknown - Researched by _____ Date: _____

Testing of Source Individual's Blood *Consent* Obtained _____ Refused _____

Check One:

- _____ Identification of source individual infeasible or prohibited by state or local law. State why if infeasible.
- _____ Evaluation of the source individual reflected no known exposure to Bloodborne Pathogen
- _____ Evaluation of the source individual reflected possible exposure to Bloodborne Pathogen and medical follow-up is recommended.

Person Completing Report: _____ Date: _____

Note: Report the results of the source individual's blood test to the medical provider named above who will inform the exposed employee. Do not report blood test findings to the employer.

HIV-related information cannot be released without written consent of the source individual.

APPENDIX F

CONFIDENTIAL

EMPLOYEE EXPOSURE FOLLOW-UP RECORD

Employee's Name _____ Job Title _____

Occurrence Date _____ Date Reported _____ Occurrence Time _____

Source Individual Follow-Up:

Request Made to _____

Date _____ Time _____

Employee Follow-Up:

Employee's Health File Reviewed by _____ Date _____

Information given on source individual's blood test results Yes _____ Not Obtained _____

Referred to healthcare professional with required information:

Name of healthcare professional _____

By Whom _____ Date _____

Blood Sampling/Testing Offered

By Whom _____ Date _____

Vaccination Offered/Recommended:

By Whom _____ Date _____

Counseling Offered:

By Whom _____ Date _____

Employee Advised of need for further evaluation of medical condition:

By Whom _____ Date _____

APPENDIX G

INFORMATION OF REGULATED MEDICAL WASTE

The following information is included to assist you in evaluating and contracting for a transport, handling, and disposal company, should you not be equipped to handle your regulated medical waste.

Every Prospective Client is Urged to:

1. Request and check references and solicit information on reliability from colleagues who are known clients of vendor(s);
2. Obtain a specific detailed contract for services rendered;
3. Require accurate documentation on transportation practices and date, method and location of ultimate disposal;
4. If at all possible, make a site visit to the vendor's base of operation and disposal facilities; and
5. Strictly monitor all aspects of the services provided to you on an ongoing basis.

For Additional Information on Regulated Medical Waste, Contact:

New Jersey Department of Environmental Protection
Division of Solid Waste Management
Bureau of Medical Waste and Residuals Planning
CN 414
840 Bear Tavern Road
Trenton, NJ 08625-0414
(609) 530-8599

and/or

New Jersey Department of Health
Division of Epidemiology, Environmental and Occupational Health Services
Public Health Sanitation Program
CN 369, 3635 Quakerbridge Road
Trenton, NJ 08625-0369 (609) 588-3124

APPENDIX H



BIOHAZARD

APPENDIX I
and Health Administration
Fact Sheet

U.S. Department of Labor, Occupational Safety

**Personal Protective
Equipment Cuts Risk**

Wearing gloves, gowns, masks, and eye protection can significantly reduce health risks for workers exposed to blood and other potentially infectious materials. 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 8,700 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 personal protective equipment 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 or 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; and (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

FIRE SERVICE BOOKLET 7 - MODEL FIRE DEPARTMENT EXPOSURE CONTROL PLAN

extensive coverings such as gowns, aprons, surgical caps and hoods, and shoe covers or boots are needed when gross contamination is expected. This often occurs, for example, during orthopedic

APPENDIX I (continued)

surgery or autopsies.

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 a lab coat is considered PPE, it must be supplied by the employer rather than the employee. 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 to 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 judgment 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 future occurrences. For example, if a firefighter's resuscitation device is damaged, perhaps another type of device should be used or the device 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 or 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, smoking, applying cosmetics or lip balm, and handling contact lenses in areas where they may be exposed to blood or other potentially infectious materials.

FIRE SERVICE BOOKLET 7 - MODEL FIRE DEPARTMENT EXPOSURE CONTROL PLAN

This is one of a series of fact sheets that discuss various requirements of the Occupational Safety

APPENDIX I (continued)

and Health Administration's standard covering exposure to bloodborne pathogens. Single copies of fact sheets are available from OSHA Publications, Room N-3103, 200 Constitution Avenue, N.W., Washington, D.C. 20210 and from OSHA regional offices.

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APPENDIX J

U.S. Department of Labor, Occupational

Safety and Health Administration

Fact Sheet

Reporting Exposure Incidents

OSHA's bloodborne pathogens standard includes provisions for medical follow-up for workers who have an exposure incident. The most obvious exposure incident is a needlestick. 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) which 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 infectivity 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 tell the employee what to do if an exposure incident occurs.

MEDICAL EVALUATION AND FOLLOW-UP

Employers must provide free medical evaluation 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 or she will prescribe appropriate treatment in line with current U.S. 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.

FIRE SERVICE BOOKLET 7 - MODEL FIRE DEPARTMENT EXPOSURE CONTROL PLAN

The employer must maintain the employee's blood sample for 90 days in case the employee changes his or her mind about testing---should symptoms develop that might relate to HIV or HBV infection.

APPENDIX J (continued)

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 immune globulin 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 or her test, he or she may receive the vaccine. Further, the health care provider will discuss any other findings 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 provide a written report to the employer. This report simply 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.

This is one of a series of fact sheets that discuss various requirements of the Occupational Safety and Health Administration's standard covering exposure to bloodborne pathogens. Single copies of fact sheets are available from OSHA Publications, Room N-3103, 200 Constitution Avenue, N.W., Washington, D.C. 20210 and from OSHA regional offices.

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APPENDIX K

U.S. Department of Labor, Occupational

Safety and Health Administration

Fact Sheet

Protecting Yourself When Handling Sharps

A needlestick or a cut from a contaminated scalpel can lead to infection from hepatitis B virus (HBV) or human immunodeficiency virus which 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 must 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 the bottom must be leakproof. 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 disturbed 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 needlesticks or cuts.

HANDLING CONTAINERS

FIRE SERVICE BOOKLET 7 - MODEL FIRE DEPARTMENT EXPOSURE CONTROL PLAN

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 is closable, labeled, or color coded and leak resistant.

APPENDIX K (continued)

Careful handling of sharps can prevent injury and reduce the risk of infection. By following these work practices, employees can decrease their chances of contracting bloodborne illness.

This is one of a series of fact sheets that discuss various requirements of the Occupational Safety and Health Administration's standard covering exposure to bloodborne pathogens. Single copies of fact sheets are available from OSHA Publications, Room N-3103, 200 Constitution Avenue, N.W., Washington, D.C. 20210 and from OSHA regional offices.

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APPENDIX L

Safety and Health Administration

U.S. Department of Labor, Occupational

Fact Sheet

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 U.S.

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 which 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 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 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, launderers, 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 were effective July 6, 1992.

WHAT DOES VACCINATION INVOLVE?

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.

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 it is unclear how long the immunity lasts, so booster shots may be required at some point in the future.

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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 vaccination nor

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are employers required to provide prescreening.

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

WHAT IF I DECLINE VACCINATION?

Workers who decide to decline vaccination must complete a declination form. Employers must keep these forms on file so that they know the vaccination status of everyone who is exposed to blood. At any time after a worker initially declines to receive the vaccine, he or she may opt to take it.

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) infectivity. The worker's blood will also be screened if he or she agrees.

The health care professional is to follow the guidelines of the U.S. 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.

This is one of a series of fact sheets that discuss various requirements of the Occupational Safety and Health Administration's standard covering exposure to bloodborne pathogens. Single copies of fact sheets are available from OSHA Publications, Room N-3103, 200 Constitution Avenue, N.W., Washington, D.C. 20210 and from OSHA regional offices.

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APPENDIX M

Safety and Health Administration

Fact Sheet

U.S. Department of Labor, Occupational

Holding the Line on Contamination

Keeping work areas in a clean and sanitary condition reduces employees' 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 operatory and a 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; and (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 glassware that may be potentially contaminated break, workers need to use mechanical means such as a brush and dustpan or tongs or forceps to pick up the broken glass never by hand, even when wearing gloves.

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

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are still contaminated. This enables employees and those who service the equipment to take appropriate precautions to prevent exposure.

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REGULATED WASTE

In addition to effective decontamination of work areas, proper handling of regulated waste is essential to prevent unnecessary exposure to blood and other potentially infectious materials. Regulated waste must be handled with great care--i.e., liquid or semi-liquid blood and other potentially infectious materials, items caked with these materials, items that would release blood or other potentially infected materials if compressed, pathological or microbiological wastes containing them and contaminated sharps.

Containers used to store regulated waste must be closable and suitable to contain the contents and prevent leakage of fluids. Containers designed for sharps also must be puncture resistant. They must be labeled or color-coded to ensure that employees are aware of the potential hazards. Such containers must be closed before removal to prevent the contents from spilling. If the outside of a container becomes contaminated, it must be placed within a second suitable container.

Regulated waste must be disposed of in accordance with applicable state and local laws.

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.

This is one of a series of fact sheets that discuss various requirements of the Occupational Safety and Health Administration's standard covering exposure to bloodborne pathogens. Single copies of fact sheets are available from OSHA Publications, Room N-3103, 200 Constitution Avenue, N.W., Washington, D.C. 20210 and from OSHA regional offices. 6/92

APPENDIX N

CLEANING SCHEDULE

AREA	SCHEDULED CLEANING (DAY/TIME)	CLEANERS & DISINFECTANTS USED	SPECIFIC INSTRUCTIONS

APPENDIX O Prescribing Information

(To be provided by Vaccine Manufacturer)

APPENDIX P

REGULATED MEDICAL WASTE AUTUMN 1991 UPDATE GENERATOR FACT SHEET

THE NEW JERSEY REGULATED MEDICAL WASTE REGULATORY PROGRAM IS BASED ON REGISTRATION, TRACKING, ON-SITE CONTROL, AND UTILIZES A SPECIAL TRACKING FORM TOGETHER WITH SPECIFIC REPORTING, PACKAGING, MARKING, LABELING AND OTHER REQUIREMENTS.

BACKGROUND

The New Jersey Department of Environmental Protection (DEP) adopted the medical waste regulations on June 26, 1989, with the assistance of the New Jersey Department of Health (DOH). These regulations were adopted in response to widespread public concern over the mismanagement of medical wastes, a problem that poses a potential danger to the public health, safety and welfare and is aesthetically degrading the environment. The medical waste regulations concerning the proper processing, transportation and ultimate disposal of regulated medical waste (RMW) are listed in the New Jersey Administrative Code at N.J.A.C. 7:26-3A and with limited exception they embody the Federal United States Environmental Protection Agency (EPA) regulations. The DEPE regulations remain in effect even though the EPA two-year medical waste demonstration program that New Jersey participated in, ended in June 1991.

The Bureau of Medical Waste Residuals Management and Statewide Planning (BMWRMSP) within the Division of Solid Waste Management (DSWM) has developed a series of fact sheets for generators, transporters, intermediate handlers and destination facilities which may be used as an outline and interpretive guide to the full text of the regulations. These fact sheets are available upon request from the DEP, Division of Solid Waste Management, Bureau of Medical Waste, Residuals Management and Statewide Planning, CN 414, Trenton, NJ 08625 or by calling (609) 530-8599 during normal business hours.

PROGRAM REGISTRANTS

As of August 1, 1991 the DEP has registered over 13,400 regulated medical waste generators (such as physicians, hospitals, veterinarians, funeral homes and medical laboratories etc.) as well as 34 transporters. Generators, transporters, intermediate handlers and destination facilities are required to register annually with the DEP. The registration period for generators extends from July 22 through July 21 of each calendar year and fees are payable by August 20 of each calendar year.

The registration period for transporters extends from May 1 through April 30 of each calendar year and fees are payable by May 30 of each calendar year.

The registration period for intermediate handlers and destination facilities extends from January 1 through December 30 of each calendar year and fees are payable by January 29 of each calendar year.

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INSPECTIONS:

The DEP Bureau of Inspections and Investigations and the DOH, Environmental Services Program and Field Operations Program are responsible for performing annual compliance activities in the State. Generators, transporters, intermediate handlers and destination facilities are inspected by the DEP while large volume generators such as hospitals and nursing homes are inspected by the DOH.

The following table summarizes the current DEP and DOH inspections conducted from June 1989 to March 1991. The EPA is no longer conducting inspections due to termination of the federal demonstration program.

Inspections	3,298
Violations.	1,598
Incidents:	84
Investigations:	173
Penalties Assessed:	\$322,450

Penalties up to \$50,000 may be assessed for violations.

Some examples of common violations for which penalties are assessed are:

- a. Failure to register as a medical waste generator (*N.J.A.C. 7:26-3A.8(a)*).
- b. Failure to segregate, package, label and mark the RMW in accordance with regulations *N.J.A.C. 7:26-3A.10, 11, 14 and 15*.
- c. Failure to maintain generator log forms recording information on all RMW generated, treated or disposed of on-site and/or sent off-site for treatment, destruction or disposal (*N.J.A.C. 7:26-3A.21 (d) and (e)*).
- d. Failure to submit an annual generator report to the DEP for the period June 22 through June 21 of each calendar year covering all RMW generated, treated or destroyed, and disposed of during that year by July 21 of each calendar year (*N.J.A.C. 7:26-3A.21 (b)*).

COMMON QUESTIONS AND ANSWERS

ABOUT NEW JERSEY'S MEDICAL WASTE REGULATIONS:

- Q1. *Are RMW generators required to dispose of (have a registered transporter pick up) their waste monthly or at definite time periods?*
- A. No, the medical waste regulations do not require generators to dispose of their waste monthly or provide specific time limits for the on-site storage of RMW at a generator's facility. However, the generator must store the waste in compliance with the storage requirements found at *N.J.A.C. 7:26-3A.12*. The DEP is considering a rule change in the near future to require storage for no longer than one year.
- Q2 *Are carpules generated at a dentist's office considered RMW?*

APPENDIX P (continued)

- A. Yes, carpules are RMW (*N.J.A.C. 7:26-3A.6(a)*). They are classified as Class 4-Sharps. They must be handled with the other sharps such as syringes (with or without the attached needle), needles, endo files, burrs, etc. generated at a dentist's office.
- Q3. *What are the regulated body fluids?*
- A. Regulated body fluids are liquids emanating or derived from humans and are limited to blood, cerebrospinal, synovial, pleural, peritoneal, pericardial fluids, semen and vaginal secretions. Dialysate solution and amniotic fluid have also been recently included in this definition by the EPA. As mentioned earlier, the New Jersey medical waste regulations embody the federal EPA regulations.
- Q4. *What is isolation waste Class 6? Is waste generated while treating a patient with AIDS (Acquired Immune Deficiency Syndrome) considered to be isolation waste?*
- A. Isolation waste is defined as "Any biological waste and discarded materials contaminated with blood, excretion, exudates or secretions from humans who are isolated to protect others from certain highly communicable diseases (such as lassa fever or smallpox, etc.) or animals known to be infected with highly communicable diseases" (*N.J.A.C. 7:263A-6(a)*). The infectious agents causing these diseases are listed in Class 4 of the Centers for Disease Control's (CDC's) Document "Classification of Etiologic Agents on the Basis of Hazard." The CDC guidelines do not list the AIDS virus, therefore waste generated while treating a patient with AIDS is not an isolation waste Class 6. A list of infectious agents included in Class 6 is available from the Bureau of Medical Waste, Residuals Management and Statewide Planning.
- Q5. *What is the comprehensive State RMW management plan?*
- A. The Comprehensive Regulated Medical Waste Management Act required the DEP to study the issue of regulated medical waste in the State and prepare a management plan. This plan is intended to address the immediate, interim and long term needs of the State with respect to the disposal of RMW in a manner that will protect the public health and the environment. The plan is required by law to include analyses and recommendations in a number of important areas such as economic factors related to medical waste disposal, waste flow and an assessment of the technological efficiency of various old and new disposal technologies. The plan is expected to be completed in 1991.
- Q6. *Where can a generator obtain medical waste tracking forms? Is there a fee for them?*
- A. A generator/transporter can obtain the medical waste tracking forms, free of charge from the DEP, BMWRMSP at the address listed above or by calling (609) 530-8599 during normal business hours.
- Q7. *Can other generators, such as private hospitals pick up RMW generated by another generator such as a private practitioner?*
- A. No, generators, such as hospitals cannot transport RMW without possessing the permits listed at *N.J.A.C. 7:26-3A.27*. These requirements include:

APPENDIX P (continued)

- a. Registering as a regulated medical waste transporter in accordance with *N.J.A.C. 7:26-3A.8*.
 - b. Registering as a solid waste transporter.
 - c. Obtaining a certificate of public convenience and necessity issued by the Division of Solid Waste Management.
 - d. Notifying the EPA in accordance with *N.J.A.C. 7:26:3A.29*.
- Q8. *Is a generator required to submit daily/monthly generator logs and/or copies of tracking forms to the DEP?*
- A. No, generators are not required to submit their logs or copies of tracking forms to the DEP. These forms must be retained at the office for at least three years from the date the waste was generated/accepted by the initial medical waste transporter unless the DEP specifically requires an additional retention period. These records are checked by the DEP and DOH inspectors during their compliance inspections.
- Q9. *If generators treat and destroy their own RMW by methods such as treating with chlorine bleach and grinding, are they considered to be a destination facility? Do they have to be registered as a destination facility?*
- A. Yes, generators who both treat and destroy their own RMW on-site, are considered as destination facilities and they must be registered as such with the DEP. This includes all facilities that accept RMW from other registered generators for treatment and destruction. Registration forms are available from the Bureau of Small Facility Review by calling (609) 530-8885.
- Q10. *If a doctor generates a very small amount of RMW (e.g. 5 pounds per year), is the office required to maintain a monthly log?*
- A. Yes, all generators that generate less than 300 pounds per year of RMW must maintain a monthly log of all RMW generated, treated or disposed of on-site and/or sent off-site for treatment, destruction or disposal. Generators that generate 300 pounds per year or more of RMW must maintain a daily log.
- Q11. *If RMW is not picked up by a registered medical waste transporter during a particular day, is the office required to maintain a generator log for each month/day?*
- A. Yes, the generator must maintain a monthly/daily log as stated in A10, even though the waste may not be picked up for disposal at that time.

REPORT ALL INCIDENTS CONCERNING RELEASES OF RMW BY CALLING THE DEP EMERGENCY HOTLINE AT (609) 292-7172.

This is a publication of NJDEP, Division of Solid Waste Management. For further information, please call the Bureau of Medical Waste, Residuals Management and Statewide Planning at (609) 530-8599.

APPENDIX Q

XI. The Standard

Department of Labor, Occupational Safety and Health Administration

29 CFR Part 1910.1030

Title: Occupational Exposure to Bloodborne pathogens.

(a) Scope and Application. This section applies to all occupational exposure to blood or other potentially infectious materials as defined by paragraph (b) of this section.

(b) Definitions. For purposes of this section, the following shall apply:

“Assistant Secretary” means the Assistant Secretary of Labor for Occupational Safety and Health, or designated representative.

“Blood” means human blood, human blood components, and products made from human blood.

“Bloodborne Pathogens” means 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” means a workplace where diagnostic or other screening procedures are performed on blood or other potentially infectious materials.

“Contaminated” means the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

“Contaminated Laundry” means laundry which has been soiled with blood or other potentially infectious materials or may contain sharps.

“Contaminated Sharps” means 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” means 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.

“Director” means the Director of the National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designated representative.

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

“Exposure Incident” means a specific eye, mouth, 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.

“Handwashing Facilities” means a facility providing an adequate supply of running potable water, soap and single use towels or hot air drying machines.

“Licensed Healthcare Professional” is a person whose legally permitted scope of practice allows him or her to independently perform the activities required by paragraph (f) Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up.

“HBV” means hepatitis B virus.

“HIV” means human immunodeficiency virus.

“Occupational Exposure” means reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee’s duties.

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“Other Potentially Infectious Materials” means (1) The following human body fluids:
semen,

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vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids; (2) Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and (3) HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

“Parenteral” means piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions.

“Personal Protective Equipment” is specialized clothing or equipment worn 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 hazard are not considered to be personal protective equipment.

“Production Facility” means a facility engaged in industrial-scale, large-volume or high concentration production of HIV or HBV.

“Regulated Waste” means 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 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.

“Research Laboratory” means 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 in the volume found in production facilities.

“Source Individual” means any 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” means the use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.

“Universal Precautions” is an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

“Work Practice Controls” means controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two-handed technique).

(c) Exposure Control. (1) Exposure Control Plan. (i) Each employer having an employee(s) with occupational exposure as defined by paragraph (b) of this section shall establish a written Exposure Control Plan designed to eliminate or minimize employee exposure.

(ii) The Exposure Control Plan shall contain at least the following elements:

(A) The exposure determination required by paragraph (c)(2),

(B) The schedule and method of implementation for paragraphs (d) Methods of Compliance, (e) HIV and HBV Research Laboratories and Production Facilities, (f) Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-up, (g) Communication of Hazards to Employees, and (h) Recordkeeping, of this standard, and

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(C) The procedure for the evaluation of circumstances surrounding exposure incidents as required by paragraph (f)(3)(i) of this standard.

(iii) Each employer shall ensure that a copy of the Exposure Control Plan is accessible to

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employees in accordance with 29 CFR 1910.20(e).

(iv) The Exposure Control Plan shall be reviewed and updated at least annually and whenever necessary to reflect new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure.

(v) The Exposure Control Plan shall be made available to the Assistant Secretary and the Director upon request for examination and copying.

(2) Exposure Determination. (i) Each employer who has an employee(s) with occupational exposure as defined by paragraph (b) of this section shall prepare an exposure determination. This exposure determination shall contain the following:

(A) A list of all job classifications in which all employees in those job classifications have occupational exposure;

(B) A list of job classifications in which some employees have occupational exposure, and

(C) A list of all tasks and procedures or groups of closely related task and procedures in which occupational exposure occurs and that are performed by employees in job classifications listed in accordance with the provisions of paragraph (c)(2)(i)(B) of this standard.

(ii) This exposure determination shall be made without regard to the use of personal protective equipment.

(d) Methods of Compliance. (1) General. Universal precautions shall be observed to prevent contact with blood or other potentially infectious materials. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials.

(2) Engineering and Work Practice Controls. (i) 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.

(ii) Engineering controls shall be examined and maintained or replaced on a regular schedule to ensure their effectiveness.

(iii) Employers shall provide handwashing facilities which are readily accessible to employees.

(iv) When provision of handwashing facilities is not feasible, the employer shall provide either an appropriate antiseptic hand cleanser in conjunction with clean cloth/paper towels or antiseptic towelettes. When antiseptic hand cleansers or towelettes are used, hands shall be washed with soap and running water as soon as feasible.

(v) Employers shall ensure that employees wash their hands immediately or as soon as feasible after removal of gloves or other personal protective equipment.

(vi) Employers shall ensure that employees wash hands and any other skin with soap and water, or flush mucous membranes with water immediately or as soon as feasible following contact of such body areas with blood or other potentially infectious materials.

(vii) Contaminated needles and other contaminated sharps shall not be bent, recapped, or removed except as noted in paragraphs (d)(2)(vii)(A) and (d)(2)(vii)(B) below. Shearing or breaking of contaminated needles is prohibited.

(A) Contaminated needles and other contaminated sharps shall not be bent, recapped or removed unless the employer can demonstrate that no alternative is feasible or that such action is required by a specific medical or dental procedure.

(B) Such bending, recapping or needle removal must be accomplished through the use of a mechanical device or a one-handed technique.

(viii) Immediately or as soon as possible after use, contaminated reusable sharps shall be placed in appropriate containers until properly reprocessed. These containers shall be:

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- (A) puncture resistant;
- (B) labeled or color-coded in accordance with this standard;
- (C) leakproof on the sides and bottom; and

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(D) in accordance with the requirements set forth in paragraph (d)(4)(ii)(E) for reusable sharps.

(ix) Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of occupational exposure.

(x) 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.

(xi) All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, spattering, and generation of droplets of these substances.

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

(xiii) 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.

(A) The container for storage, transport, or shipping shall be labeled or color-coded according to paragraph (g)(1)(i) and closed prior to being stored, transported, or shipped. When a facility utilizes Universal Precautions in the handling of all specimens, the labeling/color-coding of specimens is not necessary provided containers are recognizable as containing specimens. This exemption only applies while such specimens/containers remain within the facility. Labeling or color-coding in accordance with paragraph (g)(1)(i) is required when such specimens/containers leave the facility.

(B) If outside contamination of the primary container occurs, the primary container shall be placed within a second container which prevents leakage during handling, processing, storage, transport, or shipping and is labeled or color-coded according to the requirements of this standard.

(C) If the specimen could puncture the primary container, the primary container shall be placed within a secondary container which is puncture-resistant in addition to the above characteristics.

(xiv) Equipment which may become contaminated with blood or other potentially infectious materials shall be examined prior to servicing or shipping and shall be decontaminated as necessary, unless the employer can demonstrate that decontamination of such equipment or portions of such equipment is not feasible.

(A) A readily observable label in accordance with paragraph (g)(1)(i)(H) shall be attached to the equipment stating which portions remain contaminated.

(B) The employer shall ensure that this information is conveyed to all affected employees, the servicing representative, and/or the manufacturer, as appropriate, prior to handling, servicing, or shipping so that appropriate precautions will be taken.

(3) Personal Protective Equipment. (i) Provision. When there is occupational exposure, the employer shall provide, at no cost to the employee, appropriate personal protective equipment such as, but not limited to, gloves, gowns, laboratory coats, face shields or masks and eye protection, and mouthpieces, resuscitation bags, pocket masks, or other ventilation devices. Personal protective equipment will be considered "appropriate" only if it does not permit blood or other potentially infectious materials to pass through to or reach the employee's work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used.

(ii) Use. The employer shall ensure that the employee uses appropriate personal protective equipment unless the employer shows that the employee temporarily and briefly

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declined to use personal protective equipment when, under rare and extraordinary circumstances, it was the employee's professional judgment that in the specific instance its use would have prevented the delivery of health care or public safety services or would have posed an increased hazard to the safety of the worker or co-worker. When the employee makes this judgement, the circumstances

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shall be investigated and documented in order to determine whether changes can be instituted to prevent such occurrences in the future.

(iii) Accessibility. The employer shall ensure that appropriate personal protective equipment in the appropriate sizes is readily accessible at the worksite or is issued to employees. Hypoallergenic gloves, glove liners, powderless gloves, or other similar alternatives shall be readily accessible to those employees who are allergic to the gloves normally provided.

(iv) Cleaning, Laundering, and Disposal. The employer shall clean, launder, and dispose of personal protective equipment required by paragraphs (d) and (e) of this standard, at no cost to the employee.

(v) Repair and Replacement. The employer shall repair or replace personal protective equipment as needed to maintain its effectiveness, at no cost to the employee. (vi) If a garment(s) is penetrated by blood or other potentially infectious materials, the garment(s) shall be removed immediately or as soon as feasible.

(vii) All personal protective equipment shall be removed prior to leaving the work area.

(viii) When personal protective equipment is removed it shall be placed in an appropriately designated area or container for storage, washing, decontamination or disposal.

(ix) Gloves. Gloves shall be worn when it can be reasonably anticipated that the employee may have hand contact with blood, other potentially infectious materials, mucous membranes, and non-intact skin; when performing vascular access procedures except as specified in paragraph (d)(3)(ix)(D); and when handling or touching contaminated items or surfaces.

(A) Disposable (single use) gloves such as surgical or examination gloves, shall be replaced as soon as practical when contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised.

(B) Disposable (single use) gloves shall not be washed or decontaminated for re-use.

(C) Utility gloves may be decontaminated for re-use if the integrity of the glove is not compromised. However, they must 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.

(D) If an employer in a volunteer blood donation center judges that routine gloving for all phlebotomies is not necessary then the employer shall:

{1} Periodically reevaluate this policy;

{2} Make gloves available to all employees who wish to use them for phlebotomy;

{3} Not discourage the use of gloves for phlebotomy; and

{4} Require that gloves be used for phlebotomy in the following circumstances:

[i] When the employee has cuts, scratches, or other breaks in his or her skin;

[ii] When the employee judges that hand contamination with blood may occur, for example, when performing phlebotomy on an uncooperative source individual; and

[iii] When the employee is receiving training in phlebotomy.

(x) Masks, Eye Protection, and Face Shields. Masks in combination with eye protection devices, such as goggles or glasses with solid side shields, or chin-length face shields, shall be worn 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.

(xi) Gowns, Aprons, and Other Protective Body Clothing. Appropriate protective clothing such as, but not limited to, gowns, aprons, lab coats, clinic jackets, or similar outer garments shall be worn in occupational exposure situations. The type and characteristics will depend upon the task and degree of exposure anticipated.

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(xii) 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, orthopaedic surgery).

(4) Housekeeping. (i) General. Employers shall ensure that the worksite is maintained in a clean and sanitary condition. The employer shall determine and implement an appropriate written

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schedule for cleaning and method 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 in the area.

(ii) All equipment and environmental and working surfaces shall be cleaned and decontaminated after contact with blood or other potentially infectious materials.

(A) Contaminated work surfaces shall be decontaminated with an appropriate disinfectant after completion of procedures; immediately or as soon as feasible when surfaces are overtly contaminated or after any spill of blood or other potentially infectious materials; and at the end of the work shift if the surface may have become contaminated since the last cleaning.

(B) Protective coverings, such as plastic wrap, aluminum foil, or imperviously-backed absorbent paper used to cover equipment and environmental surfaces, shall be removed and replaced as soon as feasible when they become overtly contaminated or at the end of the workshift if they may have become contaminated during the shift.

(C) All bins, pails, cans, and similar receptacles intended for reuse which have a reasonable likelihood for becoming contaminated with blood or other potentially infectious materials shall be inspected and decontaminated on a regularly scheduled basis and cleaned and decontaminated immediately or as soon as feasible upon visible contamination.

(D) Broken glassware which may be contaminated shall not be picked up directly with the hands. It shall be cleaned up using mechanical means, such as a brush and dust pan, tongs, or forceps.

(E) Reusable sharps that are contaminated with blood or other potentially infectious materials shall not be stored or processed in a manner that requires employees to reach by hand into the containers where these sharps have been placed.

(iii) Regulated Waste.

(A) Contaminated Sharps Discarding and Containment. {1} Contaminated sharps shall be discarded immediately or as soon as feasible in containers that are:

[a] Closable;

[b] Puncture resistant;

[c] Leakproof on sides and bottom; and

[d] Labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard.

{2} During use, containers for contaminated sharps shall be:

[a] 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., laundries);

[b] Maintained upright throughout use; and

[c] Replaced routinely and not be allowed to overfill.

{3} When moving containers of contaminated sharps from the area of use, the containers shall be:

[a] Closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping;

[b] Placed in a secondary container if leakage is possible. The second container shall be:

[i] Closable;

[ii] Constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping; and

[iii] Labeled or color-coded according to paragraph (g)(1)(i) of this standard.

{4} Reusable containers shall not be opened, emptied, or cleaned manually or in any other manner which would expose employees to the risk of percutaneous injury.

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(B) Other Regulated Waste Containment.

{1} Regulated waste shall be placed in containers which are:

[a] Closable;

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[b] Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping;

[c] Labeled or color-coded in accordance with paragraph (g)(1)(i) this standard; and

[d] Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

{2} If outside contamination of the regulated waste container occurs, it shall be placed in a second container. The second container shall be:

[a] Closable;

[b] Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping;

[c] Labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard; and

[d] Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

(C) Disposal of all regulated waste shall be in accordance with applicable regulations of the United States, States and Territories, and political subdivisions of States and Territories. (iv)

(iv) Laundry.

(A) Contaminated laundry shall be handled as little as possible with a minimum of agitation.

{1} Contaminated laundry shall be bagged or containerized at the location where it was used and shall not be sorted or rinsed in the location of use.

{2} Contaminated laundry shall be placed and transported in bags or containers labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard. When a facility utilizes Universal Precautions in the handling of all soiled laundry, alternative labeling or color-coding is sufficient if it permits all employees to recognize the containers as requiring compliance with Universal Precautions.

{3} Whenever contaminated laundry is wet and presents a reasonable likelihood of soak-through of or leakage from the bag or container, the laundry shall be placed and transported in bags or containers which prevent soak-through and/or leakage of fluids to the exterior.

(B) The employer shall ensure that employees who have contact with contaminated laundry wear protective gloves and other appropriate personal protective equipment.

(C) When a facility ships contaminated laundry off-site to a second facility which does not utilize Universal Precautions in the handling of all laundry, the facility generating the contaminated laundry must place such laundry in bags or containers which are labeled or color-coded in accordance with paragraph (g)(1)(i).

(e) HIV and HBV Research Laboratories and Production Facilities.

(1) This paragraph applies to research laboratories and production facilities engaged in the culture, production, concentration, experimentation, and manipulation of HIV and HBV. It does not apply to clinical or diagnostic laboratories engaged solely in the analysis of blood, tissues, or organs. These requirements apply in addition to the other requirements of the standard.

(2) Research laboratories and production facilities shall meet the following criteria:

(i) Standard Microbiological Practices. All regulated waste shall either be incinerated or decontaminated by a method such as autoclaving known to effectively destroy bloodborne pathogens.

(ii) Special Practices

(A) Laboratory doors shall be kept closed when work involving HIV or HBV is in progress.

(B) Contaminated materials that are to be decontaminated at a site away from the work area shall be placed in a durable, leakproof, labeled or color-coded container that is closed before being removed from the work area.

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(C) Access to the work area shall be limited to authorized persons. Written policies and procedures shall be established whereby only persons who have been advised of the potential

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biohazard, who meet any specific entry requirements, and who comply with all entry and exit procedures shall be allowed to enter the work areas and animal rooms.

(D) When other potentially infectious materials or infected animals are present in the work area or containment module, a hazard warning sign incorporating the universal biohazard symbol shall be posted on all access doors. The hazard warning sign shall comply with paragraph (g)(1)(ii) of this standard.

(E) All activities involving other potentially infectious materials shall be conducted in biological safety cabinets or other physical-containment devices within the containment module. No work with these other potentially infectious materials shall be conducted on the open bench.

(F) Laboratory coats, gowns, smocks, uniforms, or other appropriate protective clothing shall be used in the work area and animal rooms. Protective clothing shall not be worn outside of the work area and shall be decontaminated before being laundered.

(G) Special care shall be taken to avoid skin contact with other potentially infectious materials. Gloves shall be worn when handling infected animals and when making hand contact with other potentially infectious materials is unavoidable.

(H) Before disposal all waste from work areas and from animal rooms shall either be incinerated or decontaminated by a method such as autoclaving known to effectively destroy bloodborne pathogens.

(I) Vacuum lines shall be protected with liquid disinfectant traps and high-efficiency particulate air (HEPA) filters or filters of equivalent or superior efficiency and which are checked routinely and maintained or replaced as necessary.

(J) Hypodermic needles and syringes shall be used only for parenteral injection and aspiration of fluids from laboratory animals and diaphragm bottles. Only needle-locking syringes or disposable syringe-needle units (i.e., the needle is integral to the syringe) shall be used for the injection or aspiration of other potentially infectious materials. Extreme caution shall be used when handling needles and syringes. A needle shall not be bent, sheared, replaced in the sheath or guard, or removed from the syringe following use. The needle and syringe shall be promptly placed in a puncture-resistant container and autoclaved or decontaminated before reuse or disposal.

(K) All spills shall be immediately contained and cleaned up by appropriate professional staff or others properly trained and equipped to work with potentially concentrated infectious materials.

(L) A spill or accident that results in an exposure incident shall be immediately reported to the laboratory director or other responsible person.

(M) A biosafety manual shall be prepared or adopted and periodically reviewed and updated

at least annually or more often if necessary. Personnel shall be advised of potential hazards, shall be required to read instructions on practices and procedures, and shall be required to follow them.

(iii) Containment Equipment. (A) Certified biological safety cabinets (Class I, II, or III) or other appropriate combinations of personal protection or physical containment devices, such as special protective clothing, respirators, centrifuge safety cups, sealed centrifuge rotors, and containment caging for animals, shall be used for all activities with other potentially infectious materials that pose a threat of exposure to droplets, splashes, spills, or aerosols.

(B) Biological safety cabinets shall be certified when installed, whenever they are moved and at least annually.

(3) HIV and HBV research laboratories shall meet the following criteria:

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(i) Each laboratory shall contain a facility for hand washing and an eye wash facility which is readily available within the work area.

(ii) An autoclave for decontamination of regulated waste shall be available.

(4) HIV and HBV production facilities shall meet the following criteria:

(i) The work areas shall be separated from areas that are open to unrestricted traffic flow within the building. Passage through two sets of doors shall be the basic requirement for entry into

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the work area from access corridors or other contiguous areas. Physical separation of the high-containment work area from access corridors or other areas or activities may also be provided by a double-doored clothes-change room (showers may be included), airlock, or other access facility that requires passing through two sets of doors before entering the work area.

(ii) The surfaces of doors, walls, floors and ceilings in the work area shall be water resistant so that they can be easily cleaned. Penetrations in these surfaces shall be sealed or capable of being sealed to facilitate decontamination.

(iii) Each work area shall contain a sink for washing hands and a readily available eye wash facility. The sink shall be foot, elbow, or automatically operated and shall be located near the exit door of the work area.

(iv) Access doors to the work area or containment module shall be self-closing.

(v) An autoclave for decontamination of regulated waste shall be available within or as near as possible to the work area.

(vi) A ducted exhaust-air ventilation system shall be provided. This system shall create directional airflow that draws air into the work area through the entry area. The exhaust air shall not be recirculated to any other area of the building, shall be discharged to the outside, and shall be dispersed away from occupied areas and air intakes. The proper direction of the airflow shall be verified (i.e., into the work area).

(5) Training Requirements. Additional training requirements for employees in HIV and HBV research laboratories and HIV and HBV production facilities are specified in paragraph (g)(2)(ix).

(f) Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up.

(1) General. (i) The employer shall make available the hepatitis B vaccine and vaccination series to all employees who have occupational exposure, and post-exposure evaluation and follow-up to all employees who have had an exposure incident.

(ii) The employer shall ensure that all medical evaluations and procedures including the hepatitis B vaccine and vaccination series and post-exposure evaluation and follow-up, including prophylaxis, are:

(A) Made available at no cost to the employee;

(B) Made available to the employee at a reasonable time and place;

(C) Performed by or under the supervision of a licensed physician or by or under the supervision of another licensed healthcare professional; and

(D) Provided according to recommendations of the U.S. Public Health Service current at the time these evaluations and procedures take place, except as specified by this paragraph (f).

(iii) The employer shall ensure that all laboratory tests are conducted by an accredited laboratory at no cost to the employee.

(2) Hepatitis B Vaccination. (i) Hepatitis B vaccination shall be made available after the employee has received the training required in paragraph (g)(2)(vii)(I) and within 10 working days of initial assignment to all employees who have occupational exposure unless the employee has previously received the complete hepatitis B vaccination series, antibody testing has revealed that the employee is immune, or the vaccine is contraindicated for medical reasons.

(ii) The employer shall not make participation in a prescreening program a prerequisite for receiving hepatitis B vaccination.

(iii) If the employee initially declines hepatitis B vaccination but at a later date while still covered under the standard decides to accept the vaccination, the employer shall make available hepatitis B vaccination at that time.

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(iv) The employer shall assure that employees who decline to accept hepatitis B vaccination offered by the employer sign the statement in Appendix A.

(v) If a routine booster dose(s) of hepatitis B vaccine is recommended by the U.S. Public Health Service at a future date, such booster dose(s) shall be made available in accordance with

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section (f)(1)(ii).

(3) Post-exposure Evaluation and Follow-up. Following a report of an exposure incident, the employer shall make immediately available to the exposed employee a confidential medical evaluation and follow-up, including at least the following elements:

(i) Documentation of the route(s) of exposure, and the circumstances under which the exposure incident occurred;

(ii) Identification and documentation of the source individual, unless the employer can establish that identification is infeasible or prohibited by state or local law;

(A) The source individual's blood shall be tested as soon as feasible and after consent is obtained in order to determine HBV and HIV infectivity. 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, the source individual's blood, if available, shall be tested and the results documented.

(B) When the source individual is already known to be infected with HBV or HIV, testing for the source individual's known HBV or HIV status need not be repeated.

(C) 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.

(iii) Collection and testing of blood for HBV and HIV serological status;

(A) The exposed employee's blood shall be collected as soon as feasible and tested after consent is obtained.

(B) 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 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible.

(iv) Post-exposure prophylaxis, when medically indicated, as recommended by the U.S. Public Health Service;

(v) Counseling; and

(vi) Evaluation of reported illnesses.

(4) Information Provided to the Healthcare Professional. (i) The employer shall ensure that the healthcare professional responsible for the employee's Hepatitis B vaccination is provided a copy of this regulation.

(ii) The employer shall ensure that the healthcare professional evaluating an employee after an exposure incident is provided the following information:

(A) A copy of this regulation;

(B) A description of the exposed employee's duties as they relate to the exposure incident;

(C) Documentation of the route(s) of exposure and circumstances under which exposure occurred;

(D) Results of the source individual's blood testing, if available; and

(E) All medical records relevant to the appropriate treatment of the employee including vaccination status which are the employer's responsibility to maintain.

(5) Healthcare Professional's Written Opinion. The employer shall obtain and provide the employee with a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation.

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(i) The healthcare professional's written opinion for Hepatitis B vaccination shall be limited to whether Hepatitis B vaccination is indicated for an employee, and if the employee has received such vaccination.

(ii) The healthcare professional's written opinion for post-exposure evaluation and follow-up shall be limited to the following information:

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(A) That the employee has been informed of the results of the evaluation; and
(B) That 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.

(iii) All other findings or diagnoses shall remain confidential and shall not be included in the written report.

(6) Medical Recordkeeping. Medical records required by this standard shall be maintained in accordance with paragraph (h)(1) of this section.

(g) Communication of Hazards to Employees. (1) Labels and Signs. (i) Labels.

(A) 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, except as provided in paragraph (g)(1)(i)(E), (F) and (G).

(B) Labels required by this legend:



section shall include the following

BIOHAZARD

(C) These labels shall be fluorescent orange or orange-red or predominantly so, with lettering and symbols in a contrasting color.

(D) Labels shall be affixed as close as feasible to the container by string, wire, adhesive, or other method that prevents their loss or unintentional removal.

(E) Red bags or red containers may be substituted for labels.

(F) Containers of blood, blood components, or blood products that are labeled as to their contents and have been released for transfusion or other clinical use are exempted from the labeling requirements of paragraph (g).

(G) Individual containers of blood or other potentially infectious materials that are placed in a labeled container during storage, transport, shipment or disposal are exempted from the labeling requirement.

(H) Labels required for accordance with this paragraph and shall remain contaminated.

(I) Regulated waste that has been decontaminated need not be labeled or color-coded.



contaminated equipment shall be in also state which portions of the equipment

been decontaminated need not be labeled

(ii) Signs. (A) The employer shall post signs at the entrance to work areas specified in paragraph (e), HIV and HBV Research Laboratory and Production Facilities, which shall bear the following legend:

BIOHAZARD

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BIOHAZARD

(Name of the Infectious Agent)

(Special requirements for entering the area)

(Name, telephone number of the laboratory director or other responsible person.)

(B) These signs shall be fluorescent orange-red or predominantly so, with lettering and symbols in a contrasting color.

(2) Information and Training. (i) Employers shall ensure that all employees with occupational exposure participate in a training program which must be provided at no cost to the employee and during working hours.

(ii) Training shall be provided as follows:

(A) At the time of initial assignment to tasks where occupational exposure may take place;

(B) Within 90 days after the effective date of the standard; and

(C) At least annually thereafter.

(iii) For employees who have received training on bloodborne pathogens in the year preceding the effective date of the standard, only training with respect to the provisions of the standard which were not included need be provided.

(iv) Annual training for all employees shall be provided within one year of their previous training.

(v) Employers shall provide additional training when changes such as modification of tasks or procedures or institution of new tasks or procedures affect the employee's occupational exposure. The additional training may be limited to addressing the new exposures created.

(vi) Material appropriate in content and vocabulary to educational level, literacy, and language of employees shall be used.

(vii) The training program shall contain at a minimum the following elements:

(A) An accessible copy of the regulatory text of this standard and an explanation of its contents;

(B) A general explanation of the epidemiology and symptoms of bloodborne diseases;

(C) An explanation of the modes of transmission of bloodborne pathogens;

(D) An explanation of the employer's exposure control plan and the means by which the employee can obtain a copy of the written plan;

(E) An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials;

(F) An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment;

(G) Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment;

(H) An explanation of the basis for selection of personal protective equipment;

(I) Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge;

(J) Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials;

(K) An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available;

(L) Information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident;

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- (M) An explanation of the signs and labels and/or color coding required by paragraph (g)(1); and
- (N) An opportunity for interactive questions and answers with the person conducting the

APPENDIX Q (continued)

training session.

(viii) The person conducting the training shall be knowledgeable in the subject matter covered by the elements contained in the training program as it relates to the workplace that the training will address.

(ix) Additional Initial Training for Employees in HIV and HBV Laboratories and Production Facilities. Employees in HIV or HBV research laboratories and HIV or HBV production facilities shall receive the following initial training in addition to the above training requirements.

(A) The employer shall assure that employees demonstrate proficiency in standard microbiological practices and techniques and in the practices and operations specific to the facility before being allowed to work with HIV or HBV.

(B) The employer shall assure that employees have prior experience in the handling of human pathogens or tissue cultures before working with HIV or HBV.

(C) The employer shall provide a training program to employees who have no prior experience in handling human pathogens. Initial work activities shall not include the handling of infectious agents. A progression of work activities shall be assigned as techniques are learned and proficiency is developed. The employer shall assure that employees participate in work activities involving infectious agents only after proficiency has been demonstrated.

(h) Recordkeeping. (1) Medical Records. (i) The employer shall establish and maintain an accurate record for each employee with occupational exposure, in accordance with 29 CFR 1910.20.

(i) This record shall include:

(A) The name and social security number of the employee;

(B) A copy of the employee's hepatitis B vaccination status including the dates of all the hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination as required by paragraph (f)(2);

(C) A copy of all results of examinations, medical testing, and follow-up procedures as required by paragraph (f)(3);

(D) The employer's copy of the healthcare professional's written opinion as required by paragraph (f)(5); and

(E) A copy of the information provided to the healthcare professional as required by paragraphs (f)(4)(ii)(B)(C) and (D).

(iii) Confidentiality. The employer shall ensure that employee medical records required by paragraph (h)(1) are:

(A) Kept confidential; and

(B) Not disclosed or reported without the employee's express written consent to any person within or outside the workplace except as required by this section or as may be required by law.

(iv) The employer shall maintain the records required by paragraph (h) for at least the duration of employment plus 30 years in accordance with 29 CFR 1910.20.

(2) Training Records. (i) Training records shall include the following information:

(A) The dates of the training sessions;

(B) The contents or a summary of the training sessions;

(C) The names and qualifications of persons conducting the training; and

(D) The names and job titles of all persons attending the training sessions.

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

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(3) Availability. (i) The employer shall ensure that all records required to be maintained by this section shall be made available upon request to the Assistant Secretary and the Director for examination and copying.

(ii) Employee training records required by this paragraph shall be provided upon request for examination and copying to employees, to employee representatives, to the Director, and to the

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Assistant Secretary.

(iii) Employee medical records required by this paragraph shall be provided upon request for examination and copying to the subject employee, to anyone having written consent of the subject employee, to the Director, and to the Assistant Secretary in accordance with 29 CFR 1910.20.

(4) Transfer of Records. (i) The employer shall comply with the requirements involving transfer of records set forth in 29 CFR 1910.20(h).

(ii) If the employer ceases to do business and there is no successor employer to receive and retain the records for the prescribed period, the employer shall notify the Director, at least three months prior to their disposal and transmit them to the Director, if required by the Director to do so, within that three month period.

(i) Dates.

(1) Effective Date. The standard shall become effective on March 6, 1992. 1910.1030(i)(2)

(2) The Exposure Control Plan required by paragraph (c) of this section shall be completed on or before May 5, 1992.

(3) Paragraph (g)(2) Information and Training and (h) Recordkeeping shall take effect on or before June 4, 1992.

(4) Paragraphs (d)(2) Engineering and Work Practice Controls, (d)(3) Personal Protective Equipment, (d)(4) Housekeeping, (e) HIV and HBV Research Laboratories and Production Facilities, (f) Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-up, and (g)(1) Labels and Signs, shall take effect July 6, 1992.

[56 FR 64004, Dec. 06, 1991, as amended at 57 FR 12717, April 13, 1992; 57 FR 29206, July 1, 1992]

APPENDIX Q1

New Jersey Register
Tuesday, July 6, 1993
Cite 25 N.J.R. 2894

LABOR

(a)

DIVISION OF WORKPLACE STANDARDS

Safety and Health Standards for Public Employees

Occupational Exposure to Bloodborne Pathogens

Adopted Amendment: N.J.A.C. 12:100-4.2

Proposed: October 19, 1992 at 24 N.J.R. 3607(b)

Adopted: June 8, 1993 by Raymond L. Bramucci, Commissioner, Department of Labor

Filed: June 8, 1993 as R.1993 d.323, **with technical changes** not requiring additional public notice and comment (see N.J.A.C. 1:30-4.3)

Authority: N.J.S.A. 34:1-20, 34:1A-3(e) and 34:6A-25 et seq., specifically, 34:6A-30,31 and 32.

Effective Date: July 6, 1993

Expiration Date: September 22, 1994.

On October 19, 1992 at 24 N.J.R. 3607(b), the Department of Labor proposed an amendment to N.J.A.C. 12:100-4.2 covering occupational exposure to bloodborne pathogens. The standard provides for the protection of public employees who could reasonably be expected to come into contact with human blood and other potentially infectious materials in the course of their work. The standard requires more abatement methods than those required under the General Duty Clause and the General Industry Standards now found at N.J.A.C. 12:100-4.2. The standard gives employers and employees more guidance in carrying out the goal of reducing the risk of occupational exposure to bloodborne pathogens.

12:100-4.2 Adoption by reference

(a) The standards contained in 29 CFR Part 1910, General Industry Standards, with amendments published in the Federal Register through May 27, 1992 with certain exceptions noted in (b) and (c) below are adopted and are incorporated herein by reference as occupational health standards for the protection of public employees engaged in general operations and shall include:

1.-18. (No change.)

19. Subpart Z - Toxic and Hazardous Substances.

i. As incorporated herein by reference, 29 CFR Part 1910.1030 shall become operative *[(90 days after the effective date of this amendment)]* ***October 4, 1993***, with the following exceptions:

(1) The exposure control plan required by 29 CFR Part 1910.1030(c)2 shall be completed on or before *[(150 days after the effective date of this amendment)]* ***December 3, 1993***;

(2) The information and training required by 29 CFR Part 1910.1030(g)2 and the recordkeeping required by 29 CFR Part 1910.1030(h) shall become operative *[(six calendar months after the effective date of this amendment)]* ***January 6, 1994***; and

(3) 29 CFR Part 1910.1030(d)2, (d)3, (d)4, (e), (f), and (g) shall become operative *[(seven calendar months after the effective date of this amendment)]* ***February 6, 1994***.

(b)-(c) (No change.)

APPENDIX R

New Jersey Register Tuesday, July 6, 1993 Cite

25 N.J.R. 2894 LABOR(a) DIVISION OF WORKPLACE STANDARDS Safety and Health Standards for Public Employees Occupational Exposure to Bloodborne Pathogens Adopted Amendment: N.J.A.C. 12:100-4.2 Proposed: October 19, 1992 at 24 N.J.R. 3607(b) Adopted: June 8, 1993 by Raymond L. Bramucci, Commissioner, Department of Labor Filed: June 8, 1993 as R.1993 d.323, **with technical changes** not requiring additional public notice and comment (see N.J.A.C. 1:30-4.3) Authority: N.J.S.A. 34:1-20, 34:1A-3(e) and 34:6A-25 et seq., specifically, 34:6A-30,31 and 32. Effective Date: July 6, 1993 Expiration Date: September 22, 1994. On October 19, 1992 at 24 N.J.R. 3607(b), the Department of Labor proposed an amendment to N.J.A.C. 12:100-4.2 covering occupational exposure to bloodborne pathogens. The standard provides for the protection of public employees who could reasonably be expected to come into contact with human blood and other potentially infectious materials in the course of their work. The standard requires more abatement methods than those required under the General Duty Clause and the General Industry Standards now found at N.J.A.C. 12:100-4.2. The standard gives employers and employees more guidance in carrying out the goal of reducing the risk of occupational exposure to bloodborne pathogens. 12:100-4.2 Adoption by reference (a) The standards contained in 29 CFR Part 1910, General Industry Standards, with amendments published in the Federal Register through May 27, 1992 with certain exceptions noted in (b) and (c) below are adopted and are incorporated herein by reference as occupational health standards for the protection of public employees engaged in general operations and shall include: 1.-18. (No change.) 19. Subpart Z - Toxic and Hazardous Substances. i. As incorporated herein by reference, 29 CFR Part 1910.1030 shall become operative *[(90 days after the effective date of this amendment)]* ***October 4, 1993***, with the following exceptions: (1) The exposure control plan required by 29 CFR Part 1910.1030(c)2 shall be completed on or before *[(150 days after the effective date of this amendment)]* ***December 3, 1993***; (2) The information and training required by 29 CFR Part 1910.1030(g)2 and the recordkeeping required by 29 CFR Part 1910.1030(h) shall become operative *[(six calendar months after the effective date of this amendment)]* ***January 6, 1994***; and (3) 29 CFR Part 1910.1030(d)2, (d)3, (d)4, (e), (f), and (g) shall become operative *[(seven calendar months after the effective date of this amendment)]* ***February 6, 1994***. (b)-(c) (No change.) **APPENDIX R}**

RESOURCE LIST

The following is a partial list of resources that can be consulted for additional information on bloodborne pathogens, particularly the Human Immunodeficiency Virus (HIV).

1. Department of Health and Human Services
Public Health Service
Centers for Disease Control
Atlanta, Georgia 30333
2. U.S. Public Health Service
Public Affairs Office
Hubert H. Humphrey Building
Room 725 H
200 Independence Avenue, SW
3. American Red Cross
AIDS Education Office

FIRE SERVICE BOOKLET 7 - MODEL FIRE DEPARTMENT EXPOSURE CONTROL PLAN

1730 Eighth Street, S.E.
Suite 200
Washington, D.C. 20003

4. AIDS Action Council
729 Eighth Street, S.E.
Suite 200
Washington, D.C. 20003
5. Service Employees International Union
Occupational Health and Safety Department
1313 L Street, N.W.
Washington, D.C. 20005
6. American Hospital Association
840 North Lake Shore Drive
Chicago, Illinois 60611
7. New Jersey Department of Health
Division of Aids, Prevention and Control
CN 363
Trenton, NJ 08625-0363
(609) 984-5874
8. New Jersey Department of Health
Division of Epidemiology, Environmental & Occupational
PEOSH Program, CN 360
Trenton, NJ 08625-0360
(609) 984-1863

Health

APPENDIX S

BIBLIOGRAPHY

OSHA Office of Training and Education
H. Lee Saltsgaver Library
Des Plaines, Illinois

BLOODBORNE PATHOGENS BIBLIOGRAPHY

This bibliography was created to assist Federal and State OSHA staff in locating materials on bloodborne pathogens in libraries in their area. The materials listed in this bibliography *are not available for loan from the OSHA Office of Training and Education*. However, these materials are available for in-house use during normal library hours. Local libraries may be able to obtain these materials from another source.

This bibliography is not all inclusive of the many occupational safety and health journals, books, and audiovisual programs available. The listing of titles, trade names, commercial products, distributors, or organizations in this bibliography does not constitute an endorsement by the U.S. Government, Department of Labor, or the OSHA Office of Training and Education.

BOOKS

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AIDS Information Network: Joint Administrative Summary. Madison Heights, MI: UAW-GM Human Resource Center, 1988.

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VIDEO PROGRAMS

AIDS and Your Job: What You Should Know. Center for Disease Control, 1988. (12 minutes)

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AIDS, HIV & Seroconversion : What You Should Know. Guidance Associates, 1988. (30 minutes)

AIDS Prevention for Laboratory Professionals. Guidance Associates, 1988. (30 minutes)

AIDS Prevention for Nursing Professionals. Guidance Associates, 1988. (30 minutes)

AIDS Prevention for Support Service Employees. Guidance Associates, 1988. (30 minutes)

Is It Worth the Risk? American Hospital Association, 1991.

OSHA's Bloodborne Pathogen Standard. American Hospital Association, 1991.

Universal Precautions In the Laboratory. Syntex, Inc. 1989. (15 minutes).

PERIODICAL ARTICLES

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"AIDS policy for the workplace: a case study of Baltimore city policy.- *American Industrial Hygiene Association Journal,* January 1991. Pages 10- 13.

"AIDS: the right to know vs. the right to privacy." P.F. Infante. *Occupational Health and Safety,* May 1991. Pages 30-36.

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"Epidemiology of AIDS: an overview of AIDS epidemiology and major modes of transmission." S.H. Lamm. *American Industrial Hygiene Association Journal,* November, 1990. Pages A742-A746.

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"New York State HIV Seroprevalence Project." L. Novick. *American Journal of Public Health*, May 1991 Supplement. Pages 3-63.

"Nurse stuck with HIV-infected needle." G. Densmore. *Occupational Health and Safety*, December 1989. Page 12.

"OSHA Proposes bloodborne diseases standard." *Occupational Hazards*, July 1989. Pages 28+

"Preliminary analysis: HIV serosurvey of orthopedic surgeons, 1991." *Morbidity and Mortality Weekly Report*. May 17, 1991. Pages 309-312.

"Prevention of HIV transmission in the workplace: categorization of jobs and tasks by risk of HIV infection." J.M. Crutcher and others. *American Industrial Hygiene Association*, January 1991. Pages A 14-A 16.

"Prevention of HIV transmission in the workplace category II (emergency services) workers." K. Mueller. *American Industrial Hygiene Association Journal*, February 1991. Pages A 104-A 107.

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"Protection from infection (in a hospital)." *Occupational Hazards*, March 1990. Page 27.

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Working Together: Needlestick Prevention (support staff version). American Hospital Association, 1988. Video program, 17 minutes.

January 1992