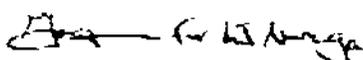


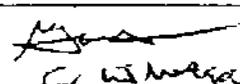
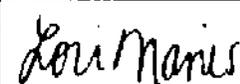
**UT-BATTELLE, LLC
OAK RIDGE NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION AND WASTE SERVICES DIVISION**

**INTERIM EXPOSURE CONTROL PLAN
OAK RIDGE NATIONAL LABORATORY BLOODBORNE PATHOGENS PROGRAM**

**Laboratory Waste Services (LWS) Group
Joint HAZMAT Spill Response Team (UT-Battelle, LLC & WESKEM, LLC)**

**EPWSD-LWS-PL- 507, Rev. 0
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This 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.

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ACRONYMS

CFR	Code of Federal Regulations
HAZMAT	hazardous materials
HIV	human immunodeficiency virus
LWS	Laboratory Waste Services
OPIM	other potentially infectious materials
ORNL	Oak Ridge National Laboratory
PPE	personal protective equipment
SBMS	Standards-Based Management System

1. EXPOSURE DETERMINATION

Job classification in which all employees have occupational exposure:

- Oak Ridge National Laboratory (ORNL) Spill Response Team.

2. METHODS OF COMPLIANCE

2.1 General - Universal Precautions

Universal Precautions shall be observed to prevent contact with blood or other potentially infectious materials (OPIM). Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials. Universal precautions involve the use of protective barriers such as gloves, coveralls, aprons, masks, or protective wear, which can reduce the risk of exposure of the worker's skin or mucous membranes to potentially infective materials. In addition, under universal precautions, it is recommended that workers take precautions to prevent injuries caused by needles, scalpels, and other sharp instruments or devices.

2.2 Engineering and Work Practice Controls

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.

2.2.1 Engineering Controls

Sharps disposal containers are a form of engineering control designed to isolate the bloodborne hazard from the workplace. Sharps disposal containers will be provided and used to contain broken glass and other sharps encountered in spill responses associated with blood or other potentially infectious materials. The containers are to be closable, puncture-resistant, leak-proof on sides and bottom, and labeled or color-coded.

2.2.2 Work Practices and Housekeeping

- Hand washing with soap and at least moderately warm running water must be performed as soon as feasible, particularly in cases of gross contamination, to adequately flush contaminated material from the skin.
- Alternative hand washing methods are allowed as an interim measure when soap and water are not an available/feasible means of washing the hands or other parts of the body. Antiseptic hand cleaner, in conjunction with clean cloth or paper towels, and antiseptic towelettes are examples of alternative methods. When these types of alternatives are used, employees shall wash their hands (or other affected areas) with soap and running water as soon as feasible thereafter.

- Employees shall wash their hands as soon as feasible after removal of gloves or other personal protective equipment (PPE). There is no requirement for hand washing upon leaving the work area unless contact with blood or other potentially infective materials has occurred or gloves or other PPE have been removed. Employees shall also wash their hands prior to eating.
- 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.
- Answering telephones or using radios while wearing contaminated gloves is prohibited.
- Access to the spill area shall be restricted when operations pose a potential for exposure to bloodborne pathogen hazards and OPIM. The area shall be roped off or barricaded to restrict access.
- Sharp items (e.g., needles, scalpels, blades, syringes, razor blades, or glass) are to be immediately placed into rigid, puncture-proof containers that are closable and labeled. These are to be disposed of by the Health Division after each cleanup operation.
- Broken glassware that 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 dustpan, tongs, or forceps. Vacuum cleaners are not appropriate for cleanup of contaminated broken glass.
- The spill should be covered with paper towels or some other containing material. The containing material should be carefully picked up in order to avoid spreading the blood or OPIM and contaminating other areas, equipment, or employees. After the gross contamination has been removed, any surfaces or equipment, which had been contaminated, should be thoroughly disinfected until moderately wet and allowed to air dry. **Note: *Due to the unique nature of many spills, the Operational Safety Services Division and Office of Health Protection should be contacted for additional instructions prior to spill cleanup if necessary.***
- Contaminated work surfaces shall be decontaminated with an appropriate disinfectant after any spill of blood or OPIM. The disinfectant shall be either tuberculocidal or have a human immunodeficiency virus (HIV) rating. A bleach solution with a 1:10 to 1:100 dilution may also be used for decontamination.
- All spill response clean up and decontamination tasks shall be performed in such a manner as to minimize splashing, spraying, spattering, or generation of droplets of blood or OPIM.
- All spill response equipment intended for reuse shall be cleaned and decontaminated immediately or as soon as feasible upon visible contamination.

- Contaminated equipment that will not, or can not be decontaminated shall be taken to the Health Division for disposal.
- Contaminated laundry shall be handled as little as possible and with a minimum of agitation. Contaminated laundry shall be bagged or containerized where it was used and shall not be sorted or rinsed at the location of use. Contaminated laundry shall be taken to the Health Division for disposal.

2.2.3 Personal Protective Equipment (PPE)

When there is occupational exposure, appropriate PPE shall be provided (e.g., gloves, coveralls or disposable suits, face shields and eye protection). PPE will be considered “appropriate” only if it does not permit blood or OPIM to pass through to or reach the employee’s work clothes, street clothes, undergarment, skin, eyes, mouth, or other mucous membranes, under normal conditions of use and for the entire time when the PPE will be used.. In order to minimize migration of contamination beyond a work area, employees must change any contaminated clothing prior to leaving the work area. Removal of any PPE shall be done in such a manner as to minimize skin contact with the contaminated surface. PPE shall be examined and maintained or replaced on at least a monthly schedule. A summary of the types of PPE used and whether they are required, present, and appropriate are presented in Table 1.

Table 1. Summary of required PPE types and applicability.

PPE Type	R/P/A	Special Requirements
Gloves		
Disposable, Nonporous	R/P/A	
Puncture Resistant	R/P/A	Required when spills involve sharp objects.
Eyes/Face		
Safety Glasses w/side shields	R/P/A	
Chemical/ Goggles	R/P/A	Required when splashes or spray of blood or OPIM may be generated.
Chin-length	R/P/A	Required when splashes or spray of blood or OPIM may be generated.
Body		
Company Clothing	R/P/A	
Coveralls	R/P/A	Required in instances where gross contamination can reasonably be anticipated.
Other (describe)		
Shoe Covers/Boots	R/P/A	Required in instances where gross contamination can reasonably be anticipated.

R= Required, P = Present, A = Appropriate

2.2.3.1 Gloves

- Disposable, nonporous double gloving of various sizes that allow dexterity and durability for the task shall be worn by all personnel when they can be reasonably expected to have hand contact with blood or OPIM, mucous membranes, or non-intact skin, and when they handle or touch contaminated items or surfaces.
- Disposable (single-use) gloves such as surgical or examination gloves shall be changed as soon as practical when contaminated or as soon as feasible if their barrier function is compromised.
- Disposable gloves shall never be washed or re-used.
- Appropriately sized gloves shall be readily available. 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.

2.2.3.2 Masks, Eye Protection, and Face Shields

Chin-length face shields, in combination with eye protection (safety glasses with side shields) devices shall be worn whenever splashes, spray, spatter, or droplets of blood or OPIM may be generated and when eye, nose, or mouth contamination can be reasonably anticipated. The use of masks will be on an as-needed basis.

2.2.3.3 Protective Body Clothing

Appropriate protective clothing such as, but not limited to, lab coats, disposable suits, or outer garments shall be worn in occupational exposure situations. The types and characteristics will depend upon the task and degree of exposure anticipated.

2.2.4 PPE Removal

All PPE will be removed at the spill site and placed in leak-proof plastic bags labeled "Biohazard." The bags will be taken to the Health Division for disposal.

2.3 Regulated Waste

Waste containing blood or OPIM (including non-reusable gloves and other PPE, sharps-containers, materials used to clean up blood-contaminated spills, and OPIM) shall be placed in leak-proof bags or leak-proof cans clearly labeled "biohazard." The containers shall be constructed to contain all contents and prevent leakage of fluids or protrusion of contents during handling, storage, transport or shipping. If outside contamination of the regulated waste occurs, it shall be placed in a second container that meets the same requirements as above.

All bloodborne pathogen contaminated waste will be properly bagged and taken to the Health Division for disposal, and shall be handled in accordance with applicable regulations and directives, such as the ORNL Standards-Based Management System (SBMS) Subject Areas including:

- [Management of Hazardous and Mixed Waste](#),
- [Spill Response, Discovery of Shock Sensitive Materials and Reporting Requirements](#), etc.

3. HEPATITIS B VACCINATION

As primary prevention, the hepatitis B vaccination series shall be made available to all employees potentially exposed to bloodborne pathogens as a result of their primary job function. The vaccination shall be made available after the employee has received the required training and within ten working days of initial assignment unless the employee has previously received the complete hepatitis B vaccination series, antibody testing has revealed that the employee is immune, or the vaccination is contraindicated for medical reasons. If the employee declines the vaccination, he/she must sign a declination statement. The individual shall be provided the vaccination at a later date if they so desire.

4. POST-EXPOSURE EVALUATION AND FOLLOW-UP

Following a report of an exposure incident, the exposed employee shall immediately report the incident to their supervisor and the installation health services organization. The responsible supervisor shall provide the health services organization with a description of the exposed employee's duties as they relate to the exposure incident, documentation of the route(s) of exposure and circumstances under which exposure occurred, and the name of the source individual if known. The health services organization shall perform a confidential medical evaluation and follow-up, in accordance with 29 CFR 1910.1030(f)(3).

5. HAZARD COMMUNICATION AND TRAINING

Employees with a potential for occupational exposure to bloodborne pathogens shall be properly trained. Training shall be provided at the time of initial assignment to tasks where occupational exposure may occur and at least annually thereafter. Additional training shall be provided when changes such as modification of tasks or procedures or institution of new tasks or procedures affect the employee's occupational exposure.

The training shall contain, at a minimum, the elements specified in 29 CFR 1910.1030(g)(2)(vii) listed below. An individual knowledgeable in the required subject matter shall provide training as it relates to the workplace.

1. An accessible copy of the regulatory text of this standard and an explanation of its contents.
2. A general explanation of the epidemiology and symptoms of bloodborne diseases.
3. An explanation of the modes of transmission of bloodborne pathogens.
4. An explanation of the employer's exposure control plan and the means by which the employee can obtain a copy of the written plan.
5. An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials.
6. 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.
7. Information on the types, proper use, location, removal, handling, decontamination, and disposal of personal protective equipment.
8. An explanation of the basis for selection of personal protective equipment.
9. Information on the hepatitis B vaccine, including information on its efficiency, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge.
10. Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials.
11. 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.
12. Information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident.
13. An explanation of the signs and labels and/or color-coding.
14. An opportunity for interactive questions and answers with the person conducting the training session.

6. RECORDKEEPING

- 6.1 Medical records shall be maintained by the health services organization, and are to be kept in accordance with the requirements of 29CFR 1910.1030.

- 6.2 Training records shall be maintained for the Spill Response Team and shall include at least the following:
- Dates of training sessions.
 - Contents of summary of training session
 - Names and qualifications of persons conducting the training.
 - Names and job titles of all persons attending the training sessions.
- 6.3 Training records shall be maintained for 3 years from the date on which training occurred.
- 6.4 Training records shall be provided upon request for examination and copying to employees, and/or to employee representatives.