

## Health Care Waste Management Worker PPE - Guidance

### Document Number: 303

*Note: This guidance document is provided as a template and must be customized to accommodate facility specific procedures and terminology.*

#### 1. Purpose

This document is intended to provide laboratories and health care facilities with information about personal protective equipment (PPE) for health care waste management (HCWM) workers who handle infectious waste and other health care waste. This document also provides guidance to health facility management in choosing appropriate PPE for their HCMW workers and establishing proper procedures for PPE use.

#### 2. Scope

Workers who collect and dispose of health care wastes are at risk for cuts and sticks from sharps, exposure to infectious agents such as blood and other bodily fluids, and splashes from chemicals. Using PPE reduces these risks and the risk of acquiring or transmitting an infection.

#### 3. Definitions

**Waste generator** — any individual who generates, produces, or is in part or whole, responsible for an activity that results in waste material.

**Waste handler** — personnel tasked with collecting, handling, transporting, storing, and disposing of healthcare waste in a health care facility. These individuals may pick up untreated health care waste from health care facilities and transport them to off-site temporary storage areas and/or off-site central treatment facilities.

**Waste treatment operator** — chief hospital engineer (or waste treatment supervisor) and the health care waste worker or operator tasked with treating health care waste in a health care facility.

#### 4. Responsibilities

- 4.1. It is the responsibility of every occupier of an institution handling health care waste to take all necessary steps to handle such waste in a way that minimizes the adverse effects on human health and the environment.
- 4.2. It is the responsibility of the facility and laboratory directors/managers to ensure that:
  - 4.2.1. Appropriate PPE are available for all staff.
  - 4.2.2. Adequate waste management practices are in place and enforced, including an occupational health program that ensures staff are appropriately immunized and establishes procedures for postexposure prophylaxis and medical surveillance.
  - 4.2.3. All staff are trained in proper waste management practices including use and maintenance of PPE.
  - 4.2.4. Staff adhere to the procedures and policies outlined in training programs, standard operating procedures (SOPs) and other guidance materials.

- 4.3. It is the responsibility of all staff that work with health care waste to:
  - 4.3.1. Strictly follow all waste management procedures including procedures for collection, segregation and bagging of infectious waste.
  - 4.3.2. Promptly report any breaches in procedures to their supervisor
  - 4.3.3. Use appropriate PPE when handling health care waste.
  - 4.3.4. Check that PPE are in good condition before each use and report to management any equipment needing replacement or maintenance.

## **5. Materials and Equipment**

Appropriate PPE shall be worn by all employees who come in contact with waste that is potentially infectious. See Attachment 11.1 for PPE requirements for different employees.

## **6. Hazards and Safety Concerns**

- 6.1. Any waste that has potentially come in contact with a patient or bodily fluids should be assumed to be infectious and handled with proper PPE and procedures.
- 6.2. Health care wastes in some circumstances are incinerated, and dioxins and other toxic air pollutants may be produced as emissions.
- 6.3. PPE must be worn at all times when working with health care waste.

The equipment should not be taken home; it must remain at the health facility to avoid possible spread of infection to the community.
- 6.4. Sensitivity to latex can develop after repeated exposure. Symptoms of a mild reaction are skin redness, hives, or itching. Symptoms of more serious reactions might include runny nose, sneezing, itchy eyes, scratchy throat, wheezing, coughing, or difficulty with breathing. Rarely, shock may occur, but a life-threatening reaction is seldom the first sign of sensitivity. A latex-exposed worker developing any serious allergic reactions should be taken to a doctor immediately.

## **7. Procedures**

- 7.1. Evaluation and selection of PPE (see Attachments 11.1 and 11.2)
- 7.2. Wearing and use of PPE
  - 7.2.1. Each operator should have his or her own mask. If shared, it should be cleaned and disinfected after each use.
  - 7.2.2. Each time the worker dons the PPE, he/she should ensure the equipment fits correctly and all parts are in good working order.
- 7.3. PPE maintenance and inspection
  - 7.3.1. Ensure that there are adequate quantities of spare PPE equipment.
  - 7.3.2. All workers should be trained on the cleaning and maintenance of PPE.
  - 7.3.3. PPE gear must be inspected for damage before use and whenever it is cleaned.
  - 7.3.4. Defective PPE must be discarded or repaired by an appropriately trained person.

7.3.5. For respiratory face marks, the filter cartridges should be replaced approximately every six months (depending on frequency of use) or when breathing becomes difficult; this signifies that the cartridges are full and need to be replaced.

## 8. Reporting and Recordkeeping

8.1. Condition of PPE should be verified during spot checks. Refer to Doc 205: Inspection Checklist: Waste Holding and Storage and Doc 206: Inspection Checklist: Laboratory Waste Management.

## 9. References

- 9.1. PATH. Personal protective equipment and segregation supply specifications for health care waste management. Seattle (WA): PATH; 2010. 14 p.  
[http://www.path.org/publications/files/TS\\_ppe\\_specs.pdf](http://www.path.org/publications/files/TS_ppe_specs.pdf)
- 9.2. Occupational Safety and Health Administration (OSHA). Personal protective equipment, OSHA 3151-12R. Washington, DC: OSHA; 2003. 46 p.  
<http://www.osha.gov/Publications/osha3151.pdf>
- 9.3. Centers for Disease Control and Prevention (CDC). Guideline for isolation precautions: preventing transmission of infectious agents in healthcare settings. Atlanta (GA); CDC; 2007. 225 p.  
[http://www.cdc.gov/hicpac/2007IP/2007ip\\_ExecSummary.html](http://www.cdc.gov/hicpac/2007IP/2007ip_ExecSummary.html)
- 9.4. Prüss A, Giroult E, Rushbrook P, editors. Safe management of wastes from healthcare activities. Geneva: World Health Organization; 1999.  
[http://www.who.int/water\\_sanitation\\_health/medicalwaste/wastemanag/en/](http://www.who.int/water_sanitation_health/medicalwaste/wastemanag/en/)
- 9.5. Cincinnati, OH: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2012-119, 2012 Feb; :1-2  
<http://www.cdc.gov/niosh/docs/2012-119/>

## 10. Related Documents

- Doc 205: Inspection Checklist: Waste Holding and Storage
- Doc 206: Inspection Checklist: Laboratory Waste Management
- Doc 302: Health Care Waste Management Prophylaxis Guidance - provides information on appropriate immunizations for HCWM workers and procedures for responding to sticks or cuts from sharps.
- Doc 304: Biological Spill Clean-up —SOP – outlines appropriate response in the event of spillage of body fluids or other potentially hazardous substances so as to minimize exposure and harm to all facility staff, including HCWM workers.

## **11. Attachments**

### 11.1. Recommended PPE for Workers

- Waste Generator
- Waste Handler
- Incinerator Operator

### 11.2. Specifications of Basic PPE for Worker Who Cleans the Lab and Collects and Transports Waste

### 11.3. Specification of Basic PPE for Incinerator Operator

### 11.4. PPE Issuance Log Sheet

## **Attachment 11.1: Recommended PPE for Workers**

### **Waste generator**

Follow facility procedures for your primary job.





### **Waste handler**

- Face masks – depending on operation
- Heavy duty gloves – obligatory
- Heavy duty boots – obligatory
- Overalls or clothes that cover the body – obligatory
- Industrial aprons – obligatory


### **Incinerator operator**

- Helmet with or without visors – depending on the operation.
- Face masks – depending on operation
- Eye protectors (safety goggles) – depending on operation.
- Heavy duty gloves – obligatory
- Heavy duty boots – obligatory
- Overalls or clothes that cover the body – obligatory
- Industrial aprons – obligatory

**Attachment 11.2: Specifications of Basic PPE for Worker Who Cleans the Lab and Collects and Transports Waste**

Equipment	Specifications	Example
<b>Apron</b>	Durable, reusable design that is able to withstand periodic disinfectant Water resistant	
<b>Gloves</b>	Durable, reusable design that is able to withstand periodic disinfectant Available in sizes appropriate for workers in facility Able to prevent blood borne pathogens contained in health care waste Made from puncture-resistant materials to protect against needlesticks and cuts from other sharps Maximum palm thickness is 0.5/20 mil Straight cuff for maximum protection from contaminated liquids. Cuff should reach at least 75 mm from upper arm surface when elbow is flexed at 90 °	 
<b>Boots</b>	Made from cut resistant materials Slip-resistant sole (deep tread with coefficient of friction >0.5) Puncture-resistant sole (minimum protection of 1200 Newtons) Protective from minimal impact (toe impact energy up to 90 joules) Fit snugly and not unduly interfere with the movements of wearer Durable Capable of being disinfected Available in sizes to fit all waste handlers (toe should be about 12.5 mm from the front)	 

### Attachment 11.3 Specification of Basic PPE for Incinerator Operator

Equipment	Specifications	Example
<b>Gloves</b>	<p>Resistant to puncture by used injection equipment</p> <p>Provide protection against contact, convective, or radiant heat</p> <p>Flame retardant</p> <p>Will not interfere with dexterity and tactile sensation required for work duties either by design or poor fit</p> <p>Durable, reusable design without compromised performance</p> <p>Available in sizes appropriate for all incinerator operators</p> <p>Safety cuff design protects upper wrist but allows for quick glove removal in emergency situations.</p>	
<b>Boots</b>	<p>Made from cut resistant materials</p> <p>Slip-resistant sole (deep tread with coefficient of friction &gt;0.5)</p> <p>Puncture-resistant sole (minimum protection of 1200 Newtons)</p> <p>Protective from minimal impact (toe impact energy up to 90 joules)</p> <p>Fit snugly and not unduly interfere with the movements of wearer</p> <p>Durable</p> <p>Capable of being disinfected</p> <p>Available in sizes to fit all waste handlers (toe should be about 12.5 mm from the front)</p>	
<b>Eye protection gear</b>	<p>Provide adequate protection against the particular hazards for which they are designed</p> <p>Reasonably comfortable when worn under the designed conditions</p> <p>Fit snugly and do not unduly interfere with the movements of wearer</p> <p>Durable</p> <p>Capable of being disinfected</p> <p>Able to worn without disturbing the adjustment of any existing prescriptive eyewear</p> <p>Made of Polycarbonate</p> <p>Lens should be impact and heat resistant with anti-fog coating</p> <p>Designed for unobstructed peripheral vision</p>	

	Adjustable support strap	
<b>Respiratory face mark</b>	<p><b>Face mark</b>  Provides protection against dust, fiber, fumes, mist, soot, and smoke. Is reasonably comfortable when worn under the designated conditions. Fits snugly and does not unduly interfere with the movements of the wearer. Is made of material that is capable of being disinfected regularly. Has a strap that is either elastic or adjustable. Is made of silicone or thermal plastic polymer. Is available in a minimum of three sizes: small, medium, and large. Size dimensions will vary by manufacturer and should be requested prior to ordering.</p> <p><b>Cartridge</b>  Is able to achieve the National Institute for Occupational Safety and Health P100 or N100 rating, or equivalent European Committee for Standardization certification. P100 cartridges will protect against any particulates, including oil-based materials. N series cartridges protects against solid and water-based particulates such as nuisance dust. Contains a granular or porous material—such as carbon or coconut—which removes specific air particulates. Is available in bayonet, push-in mounted cartridge, or canister form; is able to remove 99.9% of dusts and non-oil-based mists. Enables easy breathing during use.</p>	