

Chapter 4: Standards, Guidelines, and Workers' Rights

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Objectives

After completing this chapter, participants should be able to:

1. Explain applicable OSHA standards for worker protection from infectious diseases.
2. State the definition of *Occupational Exposure* pertaining to the OSHA Bloodborne Pathogens Standard.
3. Explain OSHA requirements for safe treatment and transport of Ebola-contaminated waste.
4. Describe the importance of CDC guidelines for working around infectious diseases.
5. Describe the inter-agency report providing guidance for handling Category A waste.
6. Explain the Cal-OSHA Aerosol Transmissible Diseases Standard.
7. Describe the role of the special permit DOT-SP 16279.
8. Explain the importance of the EPA RCRA.
9. Describe the legal rights of employees under the OSHA Construction Standard.

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Introduction

The Occupational Safety and Health Act (OSH Act)

The Occupational Safety and Health Act of 1970 (OSH Act) is the most significant labor-protective statute for health and safety in the workplace. The Occupational Safety and Health Administration (OSHA) was created from this act within the Department of Labor (DOL). OSHA encourages employers and employees to work together so that workplace hazards can be reduced.

The OSH Act requires that employers provide a safe and healthful workplace free of recognized hazards, and that they follow OSHA standards. Employers' responsibilities also include, but are not limited to, providing training, medical examinations, personal protective equipment, respirators, and recordkeeping. This chapter presents the main OSHA standards that apply to the protection of workers who may be exposed to infectious diseases.

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Standards, Guidelines, and Workers' Rights

OSHA STANDARDS FOR INFECTIOUS DISEASES

Employers must follow all OSHA standards as they apply to their scope of work. Several OSHA standards and directives are directly applicable to protecting workers against the transmission of infectious agents. These include:

- Bloodborne Pathogens Standard (29 CFR 1910.1030);
- Personal Protective Equipment (PPE) Standard (29 CFR 1910.132);
- Respiratory Protection Standard (29 CFR 1910.134);
- Hazardous Waste Operations and Emergency Response (HAZWOPER) Standard (29 CFR 1910.120);
- General Duty Clause (Sec. 5(a)(1)) of the Occupational Safety & Health Act; and
- Hazard Communication Standard (29 CFR 1910.1200).

Employers must also follow other requirements, including those established by state plans, whenever such requirements apply (e.g., Cal/OSHA Aerosol Transmissible Diseases (ATD) Standard). Federal OSHA does not currently have an infectious disease standard, but recognizes the need for one. As of this writing, OSHA has published an Infectious Diseases Request for Information (RFI), held stakeholder meetings, conducted site visits, and completed the SBREFA (Small Business Regulatory Enforcement Fairness Act) process. Feedback from these sources helped the Agency to further refine its development of a Notice of Proposed Rulemaking regarding an Infectious Diseases standard. The proposed standard is targeted mainly at healthcare workers, but would also apply to other workers engaged in activities with similar types of potential exposures to infectious agents. OSHA's definition of what constitutes a healthcare worker is broad in scope, and includes workers such as environmental service workers. Their definition of a healthcare worker will be more defined if/when they come out with an Infectious Disease standard. Currently, OSHA refers to occupations that are exposed to blood and other potential infectious materials (OPIM) when asked what constitutes a healthcare worker. Check the OSHA website (www.osha.gov) for the latest information regarding the rule making process.



Occupational exposure means a reasonably anticipated skin, eye, mucous membrane, or parenteral (entering the body in a manner other than through the mouth/digestive tract, e.g., through a injection) contact with blood or OPIM that may result from the performance of an employee's duties. It doesn't matter what the job title is or how the business is identified. It is the potential exposure to the hazard that matters.

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State Plans

As mentioned above, OSHA permits states to assume the enforcement responsibility for occupational safety and health issues by adopting a state plan. At a minimum, state plans must be as stringent as OSHA protections, rules, and regulations. OSHA also gives states the right to conduct inspections and participate in enforcement activities. A list of state agencies with state plans is contained in the OSHA publication, *Your Workplace Rights*.

BLOODBORNE PATHOGENS STANDARD (29 CFR 1910.1030)

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OPIM: other potentially
infectious material



Sharps containers are an example of a workplace control against exposure to bloodborne pathogens.

The OSHA Bloodborne Pathogens Standard (29 CFR 1910.1030) requires an exposure determination that includes development of a list of job classifications and tasks that have reasonably anticipated exposure. The standard requires that all blood and body fluids and other potentially infectious material (OPIM) be treated as potentially infectious and that universal precautions are required to prevent contact of an employee's skin, eyes, mouth, and mucous membranes with blood or OPIM.

Where occupational exposure remains after the institution of engineering and work practice controls, the employer must provide PPE that prevents blood or OPIM from passing through to the employee's skin, eyes, mouth, mucous membranes, or clothing. The standard requires at least an annual evaluation, selection, and implementation of safety engineered sharps as they become available. OSHA additionally requires that management solicit input from non-managerial employees.

The standard also requires that employers provide appropriate PPE including gowns, aprons, body clothing, masks, eye protection, and face shields. The standard requires a comprehensive written Bloodborne Pathogens Exposure Control Plan (ECP) and annual worker training, which includes providing an individual who can answer questions live and any new or changing hazards.

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Employers are responsible for providing appropriate PPE to workers.

OSHA PPE STANDARD – 29 CFR 1910, SUBPART I

The OSHA Personal Protective Equipment (PPE) Standard (29 CFR 1910, Subpart I) requires that employers assess the workplace, determine the presence of hazards, and then choose appropriate PPE to protect workers. Employers must select PPE that protects workers against infectious substances and other hazards to which they may be exposed.

Depending on the route(s) of transmission of the pathogen of concern and the types of potential exposures associated with a worker's job tasks, workers must wear PPE to help minimize exposure to pathogens via mucous membranes, broken skin, or through inhalation of bio-aerosols or airborne particles. For additional information about PPE, see the OSHA PPE standards at 29 CFR part 1910 Subpart I.

Employers should also follow manufacturer instructions on product labels and Safety Data Sheets for EPA-registered disinfectants and other chemicals involved in waste management operations when selecting PPE for their workers (that is, to ensure that PPE protects workers from chemical hazards posed by such disinfectants).

When workers may be exposed to infectious particles, employers must implement a respiratory protection program that complies with the OSHA Respiratory Protection standard. A comprehensive respiratory protection program includes properly selected respirators approved by the National Institute for Occupational Safety and Health (NIOSH), fit-testing, and medical exams for workers who will use such equipment. Note that not all respirators or respirator cartridges used to protect workers against inhalation of infectious particles effectively protect them from exposure to certain chemicals used in waste packaging procedures or for cleaning and decontaminating equipment and surfaces.

Workers must don (put on) and use PPE properly in order to achieve the intended protection and minimize the risk of infection. Workers should doff (remove) PPE in a way that avoids self-contamination. For example, avoid skin and mucous membrane contact with potentially

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don: Put on

doff: Remove

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infectious materials contaminated with contact- and droplet-transmissible agents; only remove respirators after leaving work areas where air contaminants (e.g., airborne-transmissible agents) may be present.

The order of PPE donning and doffing may vary depending on the infectious agent(s) of concern in the waste, the type of PPE a worker uses, the nature of the work tasks being performed, and which devices or garments are contaminated, among other factors. Refer to updated guidance from OSHA and CDC for the most current information about particular Category A infectious agents.

1910.132 General Requirements

OSHA's PPE standard requires employers to provide PPE when engineering or administrative controls are not available or sufficient to control a job hazard. General requirements (a) include protective equipment, including personal protective equipment for:

- Eyes, face, head and extremities.
- Protective clothing.
- Respiratory devices.
- Protective shields and barriers.

PPE should be provided, used and maintained in sanitary and reliable condition wherever it is necessary, by reason of hazards of processes or environment.

1910.132(d) Hazard Assessment and Equipment Selection

Employers should assess the workplace to determine whether or not PPE is necessary.

If hazards are present, the employer should:

- Select and have each affected employees use appropriate PPE for identified hazards.
- Communicate selection decisions.
- Select PPE that fits each employee.
- Train the employees on proper use of the PPE and the reason they are using the PPE.

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A checklist is frequently used during a physical inspection of the worksite, to evaluate the need for protection of head, feet, torso, and hands, etc. Another method is to interview workers and supervisors regarding job tasks and exposures, to gain direct input from the people who perform the work.

Respiratory Hazard Assessment

Employers must identify and evaluate respiratory hazards in the workplace. This includes a reasonable estimate of the employee exposure(s), and identification of the chemical state and physical form. If the employer cannot identify the employee exposure, the atmosphere must be considered “immediately dangerous to life and health” (IDLH).

Note: There is no method for measuring the concentration of most pathogens in the workplace air, and there is no permissible exposure limit (PEL) for infectious diseases such as the Ebola virus. The determination for using an APR or PAPR is based on experience in the field in prior outbreaks of highly infectious diseases such as Ebola and other filoviruses.

PPE Selection Matrix for Occupational Exposure to Ebola Virus

Based on existing OSHA and CDC guidance, the OSHA PPE Selection Matrix for Occupational Exposure to Ebola Virus is developed to help employers select appropriate PPE for workers who may be exposed to Ebola virus through direct contact with blood or other potentially infectious body fluids from individuals with signs or symptoms of Ebola: objects, materials, and surfaces with Ebola-virus contamination; and exposure to bio-aerosols that may contain Ebola virus particles.

The matrix covers examples of common exposures, but is not intended to prescribe PPE for every worker or exposure or discuss all PPE options. (See the next page for parts of the OSHA Selection Matrix for Occupational Exposure to Ebola Virus that are directed toward environmental services workers, maintenance workers, and workers handling or transporting medical or hazardous waste.) In all cases, employers must identify hazards to which their workers may be exposed, provide appropriate PPE to protect them, and train them on when and how they must use it, and how to dispose of or decontaminate the equipment.

The matrix should be used as guidance and does not relieve employers from doing site and task specific PPE selection. It lists typical PPE, respirators and precautions on the vertical

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axis for the listed industries, under a variety of exposure scenarios listed below. Parts of the matrix list alternative, more protective PPE, when a higher-risk exposure scenario is present. Additionally, while this is specific to Ebola, as other emerging infectious diseases arise there may be new or additional guidance provided depending on the type of agent and its modes of transmission. It will be critical for the workers to communicate with the site supervisor to ensure they are equipped with the proper PPE.

Note: Recommendations can vary among Centers for Disease Control and Prevention.

OSHA PPE Selection Matrix for Occupational Exposure to Ebola Virus														✓ Use at a minimum		◆ Use when higher-risk exposures are present										
Typical precautions/PPE Tasks for normal work tasks	Conducting normal work activities	Casual interaction (outside of a healthcare setting)	Physical contact (outside of a healthcare setting)	Providing medical and supportive care							Conducting clinical laboratory work	Conducting research laboratory work	Handling dead bodies	Cleaning and disinfecting environments		Performing maintenance work	Handling, transporting, treating, and disposing of waste									
	In settings where there is no reason to anticipate exposure to Ebola virus ^a	i.e., face-to-face conversation without physical contact with individuals with risk factors for Ebola ^b , but with no signs or symptoms ^c	i.e., face-to-face conversation without physical contact with individuals with risk factors for Ebola ^b , but with no signs or symptoms of Ebola	with individuals with risk factors for Ebola, but with no signs or symptoms	with individuals with signs or symptoms of Ebola	to individuals with no signs, symptoms, or risk factors for Ebola	to individuals with risk factors for Ebola, but with no signs or symptoms	during initial evaluation of individuals with suspected Ebola (including those with same signs or symptoms), but without obvious bleeding, vomiting, or diarrhea	during initial evaluation of individuals with suspected Ebola who have bleeding, vomiting, or diarrhea, or when these symptoms are fully or partially developing, or during hospitalization of individuals with suspected or confirmed Ebola	to individuals with suspected or confirmed Ebola, which involves performing aerosol-generating procedures (AGPs)	while transporting sick individuals with risk factors for Ebola or who are suspected or confirmed to have Ebola	on samples from patients suspected of containing or confirmed Ebola, including testing which results in bio aerosol generation ^d	on samples or other material suspected of containing or confirmed Ebola, such as or known to contain Ebola ^e	if individuals suspected of dying or known to have died of Ebola, such as during packaging of remains in an appropriate containment bag or transferring of packages to a crematory	with suspected or confirmed Ebola virus contamination, but without significant visible contamination from blood or other body fluids	with suspected or confirmed Ebola virus contamination that includes significant visible contamination from blood or other body fluids	with suspected or confirmed Ebola virus contamination and using disinfectants which may pose a chemical hazard	In areas that have been fully and appropriately decontaminated in a way that eliminates Ebola virus	In areas suspected or known to have Ebola virus contamination, which have not been fully and appropriately decontaminated in a way that eliminates Ebola virus (e.g., in emergency)	suspected or known to have Ebola virus contamination (considered Category A waste), and that has been appropriately packaged ^f in its point of origin	suspected or known to have Ebola virus contamination (considered Category A waste), and when waste containers must be opened or waste otherwise handled directly					
Standard precautions	✓	✓	✓	✓	✓	Standard precautions	Standard precautions	Standard precautions	Standard precautions	Standard precautions	Standard precautions	According to biohazard level	According to biohazard level	✓	✓	✓	✓	✓	✓	✓						
Dedicated clothing (uniforms/clothes, shoes)	✓	✓	✓	✓	✓	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆						
Gloves, Single (nitrile)	◆	✓	✓	✓	✓	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆						
Gloves, Double (nitrile)					◆		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓										
Gloves, Double (other than nitrile)					◆		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓										
Face mask (e.g., surgical mask)			✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	◆	For chemical protection	For chemical protection	As appropriate for hazard	Protective resistant gloves						
Face and eye protection (e.g., goggle)			✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				◆						
Head/neck cover (e.g., surgical hood)								✓	✓	✓	Fluid-resistant	Impermeable	Impermeable	Impermeable	Impermeable	Impermeable			◆	Impermeable						
Fluid-resistant or impermeable gown ^g		◆	◆	✓	Fluid-resistant	Fluid-resistant	Fluid-resistant	Fluid-resistant	Fluid-resistant	Fluid-resistant	Fluid-resistant	Impermeable	Impermeable	Fluid-resistant	Impermeable	Impermeable	Impermeable			Fluid-resistant	Impermeable					
Fluid-resistant or impermeable coveralls		◆	◆	◆	◆	◆	◆	◆	◆	◆	Fluid-resistant	Impermeable	Impermeable	Fluid-resistant	Impermeable	Impermeable	Impermeable	Impermeable	Impermeable	Fluid-resistant	Impermeable					
Fluid-resistant or impermeable apron ^h					◆	◆	◆	◆	◆	◆	Fluid-resistant	Impermeable	Impermeable	Impermeable	Impermeable	Impermeable	Impermeable	Impermeable	Impermeable	Fluid-resistant	Impermeable					
Shoe/boot covers high enough to cover lower leg		◆	◆	◆	◆	◆	◆	◆	◆	◆	Fluid-resistant	Impermeable	Impermeable	Fluid-resistant	Impermeable	Impermeable	Impermeable	Impermeable	Impermeable	Fluid-resistant	Impermeable					
Disposable N95 respirator ⁱ				◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆					
Electronic respirator (a disposable cartridge)					◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆					
Powered Air-Purifying Respirator (PAPR)					◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆					
Full-body, air-supplied positive pressure suit											◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆					
Example of workers who may require this level of PPE	Most types of U.S. workers who do not fit into other categories on this matrix																									
	Affine coves and other transportation workers (customers' border protection officers, transportation security screeners, other law enforcement personnel), public health workers			Affine coves and other transportation workers (customers' border protection officers, transportation security screeners, other law enforcement personnel), public health workers			Healthcare workers, including physicians, nurses, and others; all workers, all staff and other transportation workers			Healthcare workers, including physicians, nurses, and others			Air medical workers, EMS workers		Clinical laboratory scientists and technicians, other laboratory personnel		Laboratory workers and technicians		Morticians; personnel medical examiner, forensic scientists		Environmental services workers in all settings, including hospitals, airports, and other areas		Maintenance workers in all settings		Environmental services and waste collection workers and other staff, DOT personnel with dispatch and collection company workers	

OSHA PPE Selection Matrix for Occupational Exposure to Ebola Virus (partial)

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RESPIRATORY PROTECTION STANDARD (29 CFR 1910.134)

The Respiratory Protection Standard (29 CFR 1910.134) requires employers to identify respiratory hazards and to use feasible engineering controls to reduce such hazards. When engineering controls are insufficient, employers must select respirators that are appropriate to the hazards that are present and develop a written respiratory protection program that details selection, types of respirators, fit-testing, medical evaluations, maintenance and care, training/retraining, and evaluation.

The employer is required to develop and implement a respiratory protection program if any employee is required to wear a respirator. Violation of OSHA's Respiratory Protection standard is consistently in the top 10 of OSHA violations.

Minimum requirements of a written respiratory protection program include the following:

- selection;
- medical evaluation;
- fit-testing and user seal checks;
- proper procedures for routine and emergency use;
- proper inspection, cleaning, maintenance, and storage;
- training; and
- program evaluation.

The medical evaluation is supervised by a physician and includes a questionnaire to determine if workers have medical conditions that would prohibit them from wearing a tight-fitting respirator. Examples of these conditions may include asthma, heart disease, and facial disfigurement. Typically, a questionnaire is used to do the medical evaluation, followed by a physical exam that's only for workers who have potential medical conditions that would prohibit respirator usage.

You may have heard of a Pulmonary Function Test (PFT), and it is a common misconception that PFTs are required as part of a respirator program; however, physicians may require a PFT as part of their respirator certification process. A PFT is a diagnostic test that is used in conjunction with a medical exam to determine physical fitness of the respirator wearer's upper body systems, including lung and heart functions. A physician (or physician assistant/

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nurse practitioner) is the only person who can order a PFT. Conducting pulmonary function tests without physician oversight is not advisable. Only a physician can interpret PFT results and determine how those results impact an employee's ability to wear a respirator at work.

Fit-testing applies to all tight-fitting respirators. It is a process where a trained fit-tester makes sure that the respirator fits the user. If the fit-test fails, the user is fitted with an alternate size or a respirator from a different manufacturer, until they get a respirator that fits properly.

A User Seal Check is conducted by the respirator wearer each time they don the respirator. It is accomplished by performing both a positive and negative check to see if the respirator is properly sealed to the face.

Selection of Respiratory Protection

Selection of appropriate respiratory protection is critically important for aerosol transmissible infectious pathogens and any other airborne infectious diseases. In some instances, health agencies such as the CDC, NIOSH, and OSHA have recommended the use of specific respirators for protection from infectious agents that are an inhalation hazard. For example, the CDC's guidelines for PPE for protection of healthcare workers involved in evaluating and treating Ebola patients call for the use of a fit-tested respirator with at least an N95 rating or a powered air-purifying respirator (PAPR), together with an ensemble of fluid resistant PPE.



Working on infectious disease sites may require the use of different types of respirators.

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During the H1N1 “swine-flu” pandemic, a tight fitting respirator with an N95 rating was also recommended to protect healthcare workers treating infected patients. CAL/OSHA also recommended a higher level of protection: use of a PAPR. Although these recommendations are critical during emergencies, organizations have the obligation and should have the capacity to conduct their own evaluations specific to the infectious disease that is present.

The OSHA Respiratory Protection Standard (29 CFR 1910.134) requires employers to conduct a risk assessment for respiratory hazards and to use feasible engineering controls to reduce such hazards. Employers must select respirators that are appropriate to the hazards that are present and develop a written respiratory protection program that details selection, types of respirators, fit-testing, medical evaluations, maintenance and care, training/retraining, and evaluation.

The lack of occupational exposure limits and methods for measuring the concentration of infectious particles in air has led a number of experts to recommend a control banding approach to respiratory protection. Control banding is an assessment method that can be used to manage workplace risks. It is a process that matches, for example, a control measure (e.g., ventilation, engineering controls, containment) to a range or “band” of hazards (e.g., skin/eye irritation, very toxic, carcinogenic). The control banding method also groups chemicals according to similar physical or chemical characteristics, examines how the chemical will be handled or processed, and considers what the anticipated exposure is expected to be. The method then determines a set of controls chosen to help prevent harm to workers.

Employers should select respirators based on respiratory hazards and workplace and user factors that affect respirator performance and reliability. These must be NIOSH-approved respirators, and there must be a sufficient number of respirator models and sizes so that respirator fits and is acceptable to the user. If an employee cannot get a proper fit with one size or model of respirator, then employers must provide an alternative size/model. All respirators will have a NIOSH stamp on them; otherwise they are not certified by NIOSH and shouldn't be used. NIOSH also maintains a database of all NIOSH-approved respirators regardless of respirator type on the Certified Equipment List.



All NIOSH-approved respirators must have the NIOSH stamp on them. Otherwise, they shouldn't be used.

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APF: Assigned protection factor

OSHA Assigned Protection Factors

Respirators provide different levels of protection based on their design. OSHA designates Assigned Protection Factors. The Assigned Protection Factor (APF) is the workplace level of respiratory protection that a respirator or class of respirators is expected to provide to employees when the employer implements a continuing, effective respiratory protection program as specified by this section. For example, an APF of 10 for a respirator means that a user could expect to inhale no more than one-tenth of the airborne contaminant present. (See Figure 1 for examples of major types of respirators.) More information about Assigned Protection Factors is provided in *Chapter 5: Personal Protective Equipment*.

Note: People with chronic respiratory, cardiac or other medical conditions that make it harder to breathe may not be able to wear a tight fitting respirator such as a disposable respirator with an N95 rating, half-mask (elastomeric) or PAPR because they require more effort to breathe.

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Surgical masks are not respirators!

Surgical masks are not respirators. Surgical masks are not designed to protect workers from inhalation of infectious particles. They are designed to provide protection from droplets, but do not provide a tight seal around the mask or effectively filter out particles.



Figure 1: Examples of respirators.

OSHA HAZWOPER STANDARD (29 CFR 1910.120)

The Hazardous Waste Operations and Emergency Response (HAZWOPER) standard (29 CFR 1910.120) applies to infectious materials. It describes health hazards from a hazardous substance, which could include infectious material associated with the worksite or

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emergency site. The standard defines a hazardous substance to include any biologic agent and other disease-causing agent that may cause negative health effects. Spills of infectious material are also covered by the standard's requirements.

The definition of "hazardous substance" used in the standard was amended in the Federal Register on April 13, 1990, to include:

Any biological agent and other disease causing agent which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any person, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations in such persons or their offspring. (CFR 1910.120(a)(3)[B])

Employers with employees engaged in emergency response activities involving infectious materials must comply with the requirements in 1910.120(q), and may also have to comply with the Bloodborne Pathogens standard, 1910.1030. If there is a conflict or overlap between the standards, the provision that is more protective of employee safety and health applies.

Workers who have had previous training under HAZWOPER can apply that knowledge to infectious diseases operations level training. For example, HAZWOPER training addresses hazard identification and control strategies, selection of PPE and respirators, and decontamination of personnel and equipment. In certain industries, applying the HAZWOPER approach to protecting personnel from exposure to infectious diseases will simplify the development of an infectious disease exposure control plan and related training.

HAZWOPER Training Levels

There are three levels of training for the emergency response to hazardous substances in the HAZWOPER standard, 1910.120(q):

- **First Responder Awareness Level:** Employees who only witness and initiate a response.
- **First Responder Operations Level:** Employees who respond to releases as part of the initial response.
- **Technical Level:** Employees who respond to releases in an aggressive fashion for the purpose of stopping the release.

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Note: Refresher training is required for all three levels. The number of hours of training required varies according to the role a worker plays in response plans.

Examples of first responders in hospitals include the following:

- Service and maintenance workers (such as power utility and facility workers).
- Security guards.
- Hospital first receivers.
- Hazmat transportation.
- Environmental services.
- Waste disposal, preparation and shipping.
- Some healthcare workers.

GENERAL DUTY CLAUSE (SEC. 5(A)(1))

Employer responsibilities are found in Section 5(a) of the Act. The law imposes broad obligations on employers:

Section 5(a) each employer:

1. Shall furnish to each of his employees . . . a place of employment which [is] free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;
2. Shall comply with occupational safety and health standards promulgated under this Act.

This section of the law places two basic requirements on employers:

- To comply with all OSHA health and safety standards.
- To provide a safe and healthy workplace.

Section 5(a) part 1:

Even though OSHA has published many special safety and health standards, the standards can never anticipate all the hazards that may be present at every workplace. The first part

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of Section 5(a) imposes a general duty on employers to provide a workplace free from recognized hazards. In other words, even if there is not a published OSHA standard that covers a particular problem on the job site, the employer has an obligation to try to eliminate from the workplace any hazard that is likely to cause death or serious physical harm to workers. This is called the OSHA General Duty Clause.

OSHA has used the General Duty Clause to address MRSA, tuberculosis, and other infectious disease hazards.

HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200) “THE RIGHT TO KNOW LAW”

In order to ensure chemical safety in the workplace, information about the identities and hazards of the chemicals must be available and understandable to workers. OSHA's Hazard Communication Standard (HCS) requires the development and dissemination of such information:

- Chemical manufacturers and importers are required to evaluate the hazards of the chemicals they produce or import, and prepare labels and safety data sheets to convey the hazard information to their downstream customers;
- All employers with hazardous chemicals in their workplaces must have labels and safety data sheets for their exposed workers, and train them to handle the chemicals appropriately.
- While there are no SDS for infectious diseases, when it comes to managing infectious diseases contaminated worksites, one of the common chemical exposures is worker exposure to cleaning supplies and solvents.

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SDS: Safety data sheet.

OSHA SAFE TREATMENT AND TRANSPORT FOR HIGHLY INFECTIOUS WASTE

There may be regulations for safe treatment, handling, and transport of highly infectious waste, depending on the type of pathogen(s). In 2014, OSHA published guidelines for Ebola in the wake of the outbreak that occurred that year. While the following information is specific to waste infected with the Ebola virus, each situation is different, and you will be provided with guidance specific to your work assignments.

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Safe handling, treatment, transport, and disposal of waste that is suspected or known to be contaminated with Ebola virus begins at the point the waste is generated (that, the point of origin), and continues through final disposal.

Waste may be generated at the point of origin during activities such as:

- Using and discarding sharps, dressings, and other supplies while caring for a patient with suspected or confirmed Ebola.
- Discarding supplies used for clinical laboratory testing of samples from a patient with suspected or confirmed Ebola.
- Cleaning hospital rooms; ambulances, airplanes, and other vehicles; airport and other transportation facilities; residences; or other areas with suspected or confirmed Ebola-virus contamination.
- Removing and discarding disposable personal protective equipment (PPE) after working in an environment with suspected or confirmed Ebola-virus contamination.

OSHA has published a Fact Sheet, *Safe Handling, Treatment, Transport and Disposal of Ebola-Contaminated Waste*, which outlines guidance such as the following:

- Take steps to minimize solid and liquid waste.
- Identify a complete chain for waste handling, collection, treatment, transport and disposal before the waste is generated.
- Create a waste management plan and secure necessary contracts and permits ahead of time in order to help avoid potential exposure hazards, security risks, and storage problems.
- Place materials in double, leakproof bags, and store in a rigid, leakproof container to reduce the risk of worker exposure.
- If waste ultimately will be transported, follow U.S. Department of Transportation (DOT) guidance for packaging from the outset to minimize repackaging or additional handling.
- Employers should follow manufacturer instructions on product labels and Safety Data Sheets for Environmental Protection Agency (EPA)-registered disinfectants when selecting PPE for their workers.

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- Ensure that the outsides of waste containers are not contaminated. Use a combination of administrative controls and work practices to avoid contaminating a container when placing waste into it.

FactSheet

Safe Handling, Treatment, Transport and Disposal of Ebola-Contaminated Waste

Workers involved in handling, treatment, transport and disposal of medical, laboratory and other waste must be protected from exposure to Ebola virus—which causes Ebola virus disease—and from physical and chemical hazards that may be associated with waste management tasks.

Ebola is spread primarily through direct contact with blood or other body fluids of a person who is ill with Ebola and from contact with objects contaminated with Ebola virus. Waste generated from caring for or cleaning up after an Ebola patient may pose a risk to workers if it is not handled safely or treated and disposed of properly.

Safe handling, treatment, transport and disposal of waste that is suspected or known to be contaminated with Ebola virus begins at the point the waste is generated (i.e., the point of origin) and continues through final disposal. Waste may be generated at the point of origin during activities such as:

- Using and discarding sharps, dressings, and other supplies while caring for a patient with suspected or confirmed Ebola;
- Discarding supplies used for clinical laboratory testing of samples from a patient with suspected or confirmed Ebola;
- Cleaning hospital rooms; ambulances, airplanes, and other vehicles; airport and other transportation facilities; residences; or other areas with suspected or confirmed Ebola-virus contamination; and
- Removing and discarding disposable personal protective equipment (PPE) after working in an environment with suspected or confirmed Ebola-virus contamination.

Waste management steps at point of origin

- Take steps to minimize solid and liquid wastes.
- Identify a complete chain for waste handling, collection, treatment, transport and disposal before the waste is generated. Ensure that waste, including incinerator ash or other completely treated materials, has a final place for disposition.



Sharps containers must be closable, puncture-resistant, leakproof, and labeled or color-coded.

U.S. Dept. of Health and Human Services (HHS)

- Create a waste management plan and secure necessary contracts and permits ahead of time in order to help avoid potential exposure hazards, security risks, and storage problems. Pre-identify waste management facilities prior to waste generation; waste management facilities may have their own requirements that may need to be considered.
- Place materials in double, leakproof bags, and store in a rigid, leakproof container to reduce the risk of worker exposure: www.cdc.gov/vhf/ebola/hcp/environmental-infection-control-in-hospitals.html. If waste ultimately will be transported, follow U.S. Department of Transportation (DOT) guidance for packaging from the outset to minimize repackaging or additional handling: phmsa.dot.gov/hazmat/packaging-of-ebola-contaminated-waste.
- Employers should follow manufacturer instructions on product labels and Safety Data Sheets for Environmental Protection Agency (EPA)-registered disinfectants when selecting PPE for their workers.

OSHA publishes information on working around Ebola-contaminated waste.

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ADDITIONAL OSHA GUIDANCE ON INFECTIOUS DISEASES

Under federal law, OSHA has the authority to enforce existing safety and health standards and create new ones when there are significant hazards that are not addressed by existing standards. OSHA currently does not have an infectious disease standard or a database of Pathogen Safety Data Sheets (PSDS).

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TB: Tuberculosis

OSHA relies on the CDC as the source of pathogen safety data, which it references in its Bloodborne Pathogen Standard TB Guidelines, and elsewhere. To date, OSHA has published guidance documents for:

- seasonal flu;
- pandemic flu;
- MRSA;
- norovirus;
- SARS;
- tuberculosis; and
- additional biological agents, such as anthrax and Ebola.

CDC GUIDELINES

The Centers for Disease Control (CDC) guidance is considered the authoritative source of information on infection control in the U.S., and is a major contributor in controlling infectious disease worldwide. State and local health departments and healthcare facilities use CDC guidelines as a basis for developing infection control programs. Typically, the CDC's website has information on transmission, risk of exposure, prevention, protection of healthcare and laboratory workers, diagnosis, outbreaks, and treatment.

CDC guidance is primarily developed for the public and public health professionals, not for occupational health. However, the National Institute for Occupational Safety and Health (NIOSH) guidance is specifically focused on worker protection. CDC web pages can be complex, and it is difficult to find pathogen safety data available for occupational safety and health. Often relevant guidance is absent or merged into other guidelines for travelers, healthcare facilities, and protection of the public.

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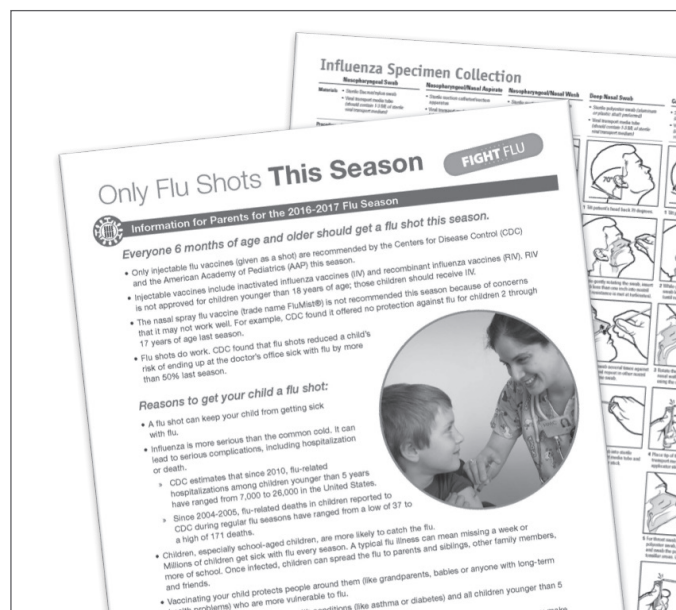
For example, in its Ebola guidelines, the CDC definition for risk categories (high, medium, low) is focused mainly on evaluating patients and travelers entering the country at certain airports or the potential for exposed people coming to an emergency room. This differs from the exposure assessment done for occupational health purposes, where risk categories may be used to determine control measures, decontamination procedures, and PPE (including respiratory protection).

OSHA also provides guidelines for workers tasked with cleaning surfaces that may be contaminated with Ebola or other infectious diseases. Employers are responsible for ensuring that workers are protected from exposure to Ebola and other infectious diseases, and that workers are not exposed to harmful levels of chemicals used for cleaning and disinfection.

These guidelines include *Cleaning and Decontamination of Ebola on Surfaces: Guidance for Workers and Employers in Non-Healthcare/Non-Laboratory Settings*.

The CDC provides guidelines for airline crews, airline cleaning personnel, and cargo personnel. It also provides infection control guidelines for cabin crew members on commercial aircraft, and PPE for airport and airplane cleaning crews in countries with widespread Ebola transmission. These include the following:

- Airline Guidance (Quarantine and Isolation);
- Preventing Spread of Disease on Commercial Aircraft: Guidance for Cabin Crew; and
- For Airport and Airplane Cleaning Crews: Using Personal Protective Equipment (PPE).



CDC guidance is primarily developed for the public and public health professionals, not for occupational health.

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ADDITIONAL STANDARDS AND GUIDELINES FOR INFECTIOUS DISEASES

Additional standards and guidelines for infectious diseases include the following:

- Interim Planning Guidance for Handling Category A Solid Waste;
- Cal-OSHA Aerosol Transmissible Diseases Standard;
- Department of Transportation Special Permit (DOT-SP) 16279; and
- EPA Resource Conservation and Recovery Act (EPA RCRA) Regulations.

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RCRA: *The Resource Conservation and Recovery Act is the law that creates the framework for the proper management of hazardous and non-hazardous solid waste.*

Interim Planning Guidance for Handling Category A Solid Waste

The Planning Guidance for the Handling of Waste Contaminated with a Category A Infectious Substance – Category A Waste Guide is a consolidated overview of regulations, and provides information and guidance to healthcare providers, healthcare waste workers, communities, and leaders on the proper management and handling of these waste materials. An infectious substance is Category A if it is in a form capable of causing permanent disability or life-threatening or fatal disease in otherwise healthy humans or animals upon exposure to the substance. The United Nations (UN) provides a list of Category A substances and guidelines for their transportation. The Ebola virus is one such pathogen, given its ability to cause severe, often fatal, illness in humans.

Regulated medical waste is regulated primarily by a combination of the following agencies:

- U.S. Department of Transportation Pipeline Hazardous Materials Safety Administration – DOT PHMSA: regulates the proper marking, packaging and documentation of the safe transport of hazardous materials including regulated medical waste and Category A infectious substances.
- U.S. Federal and State Occupational Safety Health Administration – OSHA: sets standards and oversight of the proper worker safety and protection while working with regulated medical waste and Category A infectious substances.
- State Environmental and/or Health Agencies: sets regulations for the proper handling of regulated medical waste and infectious substances including classification of wastes, proper inactivation or treatment of materials and final disposal requirements.

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- U.S. Environmental Protection Agency – EPA: sets standards for air emissions and water safety guidelines for processing facility that may treat regulated medical wastes and infectious substances.
- Centers for Disease Control – CDC: promotes health and safety throughout communities by detecting and responding to new and emerging threats and providing guidance, recommendations and training for all who may be affected.

The Category A Waste Guide is an easy-to-use document that will walk through the requirements and also provides tools for questions and answers to address general public concerns. It will provide definitions and details for the proper management of highly infectious regulated medical wastes. It will also provide an overview of requirements for healthcare facilities generating the waste, specialized transportation companies safely hauling the waste, treatment or inactivation recommendations and final disposal in a landfill. Additionally, the document will provide references for worker safety, training and emergency response so all communities know and understand where to go for the most current information depending on the highly infectious substances being managed.

When regulated medical waste is managed through these regulatory requirements and principles, there is minimal risk to the environment and safety of the public at large. Waste is generated, properly packaged and transported to the appropriate treatment facilities and ultimately is sent to a final disposal facility every day. Professional companies with skilled and trained workers ensure regulated medical waste is safely managed every day throughout the process, and Category A wastes, while requiring additional precautions, will be done so the same way.

CAL-OSHA Aerosol Transmissible Diseases Standard

Cal/OSHA, the OSHA state plan for California, established the nation's first Aerosol Transmissible Diseases (ATD) standard in 2009. The standard requires covered employers to develop a comprehensive exposure control plan for ATDs. The written exposure control plan includes:

- Establishing engineering and work practice controls to protect employees who operate, use, or maintain vehicles that transport persons who are ATD cases or suspected cases.

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- Providing written decontamination procedures for the cleaning and decontamination of work areas, vehicles, personal protective equipment, and other equipment.

While not covering all infectious pathogens and only applicable in California, this standard serves as a model for the nation. Compliance with the ATD standard is mandatory in California. However, users may benefit from reviewing its detailed requirements and approaches to hazard identification and control and related training materials on the Cal/ OSHA website. See *Table 1* for a list of diseases and pathogens that are regulated under this standard. Employers are required to provide the protections required by Section 5199 of the ATD Standard according to whether the disease or pathogen requires airborne infection isolation or droplet precautions.

Table 1. CAL/OSHA ATD List of Aerosol Transmissible Diseases/Pathogens

DISEASES/PATHOGENS REQUIRING AIRBORNE INFECTION ISOLATION	
<ul style="list-style-type: none"> • Aerosolizable spore-containing powder or other substance that is capable of causing serious human disease, e.g. anthrax/<i>Bacillus anthracis</i> • Avian influenza/avian influenza A viruses (strains capable of causing serious disease in humans) • Varicella disease (chickenpox, shingles)/varicella zoster and herpes zoster viruses, disseminated disease in any patient. Localized disease in immunocompromised patient until disseminated infection ruled out 	<ul style="list-style-type: none"> • Measles (rubeola)/measles virus • Monkeypox/monkeypox virus • Novel or unknown pathogens • Severe acute respiratory syndrome (SARS) • Smallpox (variola)/variola virus • Tuberculosis (TB)/mycobacterium tuberculosis – extrapulmonary, draining lesion; pulmonary or laryngeal disease, confirmed; Pulmonary or laryngeal disease, suspected • Any other disease for which public health guidelines recommend airborne infection isolation

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DISEASES/PATHOGENS REQUIRING DROPLET PRECAUTIONS

- Diphtheria pharyngeal
- Epiglottitis, due to *Haemophilus influenzae* type b
- *Haemophilus influenzae* serotype b (Hib) disease/*Haemophilus influenzae* serotype b—Infants and children
- Influenza, human (typical seasonal variations)/influenza viruses
- Meningitis
 - *Haemophilus influenzae*, type b known or suspected
 - *Neisseria meningitidis* (meningococcal) known or suspected
- Meningococcal disease sepsis, pneumonia (see also meningitis)
- Mumps (infectious parotitis)/mumps virus
- Mycoplasmal pneumonia
- Parvovirus B19 infection (erythema infectiosum)
- Pertussis (whooping cough)
- Pharyngitis in infants and young children/adenovirus, Orthomyxoviridae, Epstein-Barr virus, herpes simplex virus
- Pneumonia
 - Adenovirus
 - *Haemophilus influenzae* serotype b, infants and children
 - Meningococcal
 - *Mycoplasma*, primary atypical
 - *Streptococcus* group A
- Pneumonic plague/*Yersinia pestis*
- Rubella virus infection (German measles)/rubella virus
- Severe acute respiratory syndrome (SARS)
- Streptococcal disease (group A streptococcus)
 - Skin, wound or burn, major
 - Pharyngitis in infants and young children
 - Pneumonia
 - Scarlet fever in infants and young children
 - Serious invasive disease
- Viral hemorrhagic fevers due to Lassa, Ebola, Marburg, Crimean-Congo fever viruses (airborne infection isolation and respirator use may be required for aerosol-generating procedures)
- Any other disease for which public health guidelines recommend droplet precautions

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DOT-SP 16279

The U.S. Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA) provides guidance for anyone who is packing, handling or transporting material known or suspected of being contaminated with Ebola. Such waste is regulated as a Category A infectious substance under the Hazardous Materials Regulations.

DOT-SP 16279 is a non-site-specific special permit for waste haulers who have been granted authorization to use the permit; this authorizes the transportation in commerce of waste contaminated with or suspected of being contaminated with the Ebola virus for disposal. Other waste haulers not yet authorized under this special permit may apply for party status but must be approved and receive written authorization prior to using the special permit. Any authorized hauler must ensure that their workers are properly trained on the special permit prior to using it. DOT SP should also be provided to all generators of the waste, ideally prior to the start of packaging and pre-transportation activities so that proper packaging techniques are used according to the permit.

Packagings for Category A infectious substances is almost exclusively designed to transport small samples between laboratories, and so are not adequate to move large volumes of waste. In 2014, in order to facilitate movement of large volumes of Ebola contaminated waste, a Category A infectious substance, DOT used its special permit authority to allow alternative packagings, subject to additional operational controls, to accommodate larger volume of waste generated in an Ebola cleanup. Refer to *DOT-SP 16279* (Second Revision) for more specific guidance.

EPA RCRA Regulations

The Resource Conservation and Recovery Act (RCRA) protects communities and resource conservation. To achieve this, the U.S. Environmental Protection Agency (EPA) develops regulations, guidance and policies that ensure the safe management and cleanup of solid and hazardous waste, and programs that encourage source reduction and beneficial reuse.

The RCRA regulations are contained in title 40 of the Code of Federal Regulations (CFR) parts 239-282. The CFR is a collection of all federal regulations codified and enforced by all federal agencies. Title 40, "Protection of the Environment," contains all of the regulations governing EPA's programs.

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In any given state, the EPA or the state's hazardous waste regulatory agency enforces hazardous waste laws. EPA encourages states to assume primary responsibility for implementing a hazardous waste program through state adoption, authorization, and implementation of the regulations.



More information about RCRA regulations is available at the EPA website (www.epa.gov).

Again, EPA RCRA regulations do not govern the management and disposition of regulated medical or highly infectious Category A wastes. However it is important to keep in mind the wastes generated during the cleanup of sites that could potentially fall under the RCRA regulations for other reasons, such as the use of the disinfectant that could be a hazardous waste once used or the contents of the materials being disinfected such as household electronics.

OSHA AND LEGAL RIGHTS OF EMPLOYEES

Under the OSHA Construction Standard, employees have many legal rights on the job site. Some of these rights are listed here. Employees have the right to:

- have an employee representative;
- review standards and regulations;
- access medical and exposure records;
- request safety and health hazard information;
- review the Log and Summary of Occupational Injuries (Form 300);
- request an OSHA inspection;
- help the OSHA compliance officer;
- observe monitoring and examine results;
- contest the abatement period;
- contact the National Institute for Occupational Safety and Health;
- have knowledge of standard variances;
- report imminent danger;
- refuse dangerous work;
- report safety or health hazards;
- exercise their OSHA rights; and
- file a discrimination complaint.

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Have an Employee Representative

Employees have the right to have an individual (employee representative) to represent them with various health and safety issues. For example, under Section 8(e) of the OSH Act, a workers' representative (employees' representative) has the right to accompany an OSHA Compliance Officer during the inspection tour.

Review Standards and Regulations

Employees (or the Employees' Representative) have the right to review appropriate standards, rules, regulations, and requirements regarding the standards that are applicable to their type of work. The employer should have copies available at the workplace.

Access Medical and Exposure Records

Employees have the right to access their own medical and exposure records. Employers must inform employees of the existence, location, and availability of their medical record and exposure record (of toxic substances and harmful physical agents) when employees first enter into employment and at least annually thereafter.

Request Safety and Health Hazard Information

Employees (or the employees' representative) have the right to request information from the employer on safety and health hazards in the workplace. This enables employees to take the proper safety precautions, and to follow the appropriate procedures when an accident or exposure to toxic substances occurs.

Review the Log and Summary of Occupational Injuries (Form 300)

Employees (or the Employees' Representative) have the right to review the OSHA Log and Summary of Occupational Injuries (Form 300). Employers with ten or more employees must record and maintain records all work-related injuries and illnesses if they result in:

- death;
- lost workdays;

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- restriction of work;
- loss of consciousness;
- transfer to another job; and/or
- medical treatment (other than first aid).



Request an OSHA Inspection

Employees (or the Employees' Representative) have the right to request OSHA to conduct an inspection when they suspect hazardous conditions in the workplace or when possible violations of standards exist.

Employees have the right to request OSHA inspections.

After the OSHA Inspection

After the inspection, a closing conference takes place. At this conference, the OSHA Compliance Officer confers with the employer and the Employee Representative to discuss the hazard(s) found. (If a joint conference isn't possible, the OSHA Compliance Officer meets with the employer and employee individually and upon request, provides a written summary.)

During the conference, the employee representative may ask questions such as:

- What hazard(s) exist in the workplace?
- What will be done to correct the hazard(s)?
- How long will it take to correct the hazard(s)?
- Are there any other facts about the history of health and safety conditions at the workplace?

OSHA will keep the name of the worker who requested the inspection confidential if requested by the worker.

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Help the OSHA Compliance Officer

Employees (or the Employees' Representative) have the right to help the OSHA Compliance Officer and are encouraged to do so by:

- responding to the OSHA Compliance Officer's questions, particularly when an Employee Representative didn't accompany the OSHA Compliance Officer during the inspection tour;
- pointing out hazards;
- describing hazard-related accidents or illnesses;
- describing hazard-related complaints of past employees; and
- informing the OSHA Compliance Officer if working conditions were not normal during the OSHA inspection.

Employees (or the employees' representative) have the right to talk privately and confidentially to the OSHA Compliance Officer even when an authorized Employee Representative accompanied the OSHA Compliance Officer during the inspection tour.

Observe Monitoring and Examine Results

Employees (or the employees' representative) have the right to observe testing and examine the resulting records. If the exposure levels are above the limit set by the standard, the employer must let his or her employees know how the exposure will be reduced.

Contest the Abatement Period

If the OSHA inspector decides that the employer has violated the law, OSHA may issue a citation and order the employer to fix the problem within a specific time period. Whether or not the employer accepts OSHA's actions, the employee or union has the right to contest the length of time OSHA allows for correcting a hazard. There is a formal appeal process that begins by the filing of a challenge with the OSHA area director within 15 working days after the citation is posted at the site.

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Contact the National Institute for Occupational Safety and Health

Employees (or the employees' representative) have the right to contact the National Institute for Occupational Safety and Health (NIOSH) for free information on the potential dangers of substances in the workplace. In some situations, NIOSH may visit a job site to evaluate possible health hazards. NIOSH will keep the name of the individual confidential if requested to do so.



More information about NIOSH is available at the NIOSH website (www.cdc.gov/niosh).

Have Knowledge of Standard Variances

Employees (or the employees' representative) have the right to know if their employer applies for a variance from an OSHA standard. In addition, employees (or the employees' representative) have the right to testify at the hearing and appeal the final decision. Employers must notify their employees when they have applied for a variance.

Report Imminent Danger

Many people believe only safety hazards that could cause accidents can be considered imminent danger. However, it is important to remember that health hazards can cause imminent danger as well, such as when a worker encounters life-threatening concentrations of toxic gases, vapors, liquids, or radioactive materials. Exposure to some toxic substances or dangerous fumes, dusts, or gases can cause irreversible physical harm, shortened life, or reduced physical or mental performance. In some cases, OSHA may consider such health hazards to be causing imminent danger, even if the potential harm is not something that can be observed immediately. In the case of imminent danger concerning a health hazard, workers have the right to refuse hazardous work.

Reports of imminent danger receive the highest priority for OSHA inspections. If the OSHA Compliance Officer finds imminent danger during the inspection, the employer must:

- Correct the hazardous condition.
- Remove endangered employees from the area.

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Refuse Dangerous Work

OSHA protects employees who are discharged from work or disciplined for refusing to do work because of imminent safety and health dangers providing:

- Employees try to obtain a remedy from the supervisor.
- There is insufficient time to have the dangerous condition corrected by filing a complaint with OSHA.

OSHA Regulation 29 CFR 1977.22 states that a worker can refuse to perform work when the work presents a risk of death or serious injury. However, the condition causing the employee's apprehension of death or injury must be of such a nature that a reasonable person would conclude that there is a real danger of death or serious injury confronting the employee, and that there is insufficient time, due to the urgency of the situation, to eliminate the danger through regular statutory enforcement channels. In addition, the employee must have tried to correct the dangerous condition by contacting the employer.

Employees may also be protected by the National Labor Relations Board (NLRB) if employees refuse dangerous work in cooperation with other workers. OSHA and the NLRB cooperate in refusal-to-work cases involving health or safety hazards. Employees may contact OSHA or NLRB to discuss their case. The following is a small portion of the National Labor Relations Act (Section 7).

Report Safety or Health Hazards

Under the OSHA Construction Standard, employers can't legally punish, discriminate, fire, demote, or penalize employees for:

- reporting safety or health hazards to OSHA;
- complaining about safety or health hazards to the employer;
- requesting an OSHA inspection; and
- participating in union safety and health activities.

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If employees believe that they are being illegally punished (e.g., discharged), employees are normally expected to file their complaint with OSHA within 30 days. OSHA can take the appropriate actions, such as going to court to force the employer to restore an employee's job, earnings, and benefits. Employees are not responsible for paying any legal fees.

Exercise Their OSHA Rights

Section (11)(c) of the OSHA Construction Standard was written to protect employees from discrimination or punishment for exercising their OSHA rights, such as:

- complaining to their employer about job safety or health conditions;
- discussing health or safety matters with other workers;
- participating in union activities concerning health and safety matters;
- participating in workplace health and safety committee activities;
- filing a health or safety grievance;
- filing a complaint about workplace health or safety hazards with OSHA, state agencies, local health and fire departments, or any other government agency;
- participating in OSHA inspections;
- testifying before any panel, agency, or court about job hazards;
- filing (11)(c) complaints;
- providing evidence in connection with (11)(c) complaints; and
- refusing a dangerous task but only under certain conditions.

Under Section (11)(c), employers cannot do any of the following if employees exercise their OSHA rights:

- Fire or demote employees.
- Assign employees to undesirable jobs or shift.
- Take away the seniority of employees.
- Deny employees promotion .
- Deny employees their earned benefits (e.g., sick leave, vacation time).

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- Spy on employees.
- Harass employees.
- Blacklist employees with other employers.
- Try to cut off the employees' credit at banks or credit unions.

OSHA can only protect employees from punishment if they result from employees exercising their OSHA rights. OSHA can't protect employees if they are disciplined solely for refusing to comply with OSHA regulations or valid health and safety rules established by their employer. If employees are not sure whether their OSHA rights have been violated, contact OSHA immediately.

INFECTIOUS DISEASES AND WORKERS' RIGHTS

According to OSHA, the law that requires employers to provide a safe workplace, your employer does have a duty to protect you from recognized hazards. However, there is no specific duty that details what an employer must do to protect you from an infectious disease.

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FMLA: Family and Medical
Leave Act

ADA: Americans with
Disabilities Act

Under the Family and Medical Leave Act (FMLA), covered employees may take up to 12 weeks of unpaid leave for serious medical conditions. Whether any infectious disease is considered a serious medical condition will depend on the disease and the degree to which it affects you. When there is a fear of a nationwide pandemic, and the spread of a disease makes the news, employers are likely to consider the illness a serious medical condition.

Under the Americans with Disabilities Act (ADA), an employer may force an employee to stay home if the employer believes that the employee will pose a direct threat to the workplace due to having been or being exposed to, a serious infectious disease. This includes employees that are still willing and able to work. Many diseases are very infectious. For example, the Measles virus, can be caught if you enter a room where an infected individual was located thirty minutes ago. Sometimes the best way an employer can prevent the threat of exposure to all employees is to require one employee to stay home from work.

However, if an overly cautious employer forces an employee who does not have an infectious disease to stay home from work, this time cannot be charged against the employee's 12-week entitlement under the FMLA. As a general rule, employers are not allowed to charge employees with FMLA leave when that leave is required by the employer.

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Requiring infection control practices is not only a good idea during a disease pandemic, but also does not implicate any violation of the ADA. Additionally, an employer is allowed to require personal protective equipment designed to combat the spread of an infectious disease. If an employee needs a reasonable accommodation in order to use certain safety equipment (e.g. latex allergy) then an employer must provide it to the employee.

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Summary

Employers must follow all OSHA standards that apply to their scope of work. The following standards and directives are directly applicable to protecting workers against the transmission of infectious agents:

- Bloodborne Pathogens Standard (29 CFR 1910.1030)
- Personal Protective Equipment (PPE) Standard (29 CFR 1910.132)
- Respiratory Protection Standard (29 CFR 1910.134)
- Hazardous Waste Operations and Emergency Response (HAZWOPER) Standard (29 CFR 1910.120)
- General Duty Clause (Sec. 5(a)(1)) of the Occupational Safety & Health Act
- Hazard Communication Standard (29 CFR 1910.1200)

Employers must also follow other requirements, including those established by state plans whenever such requirements apply. Federal OSHA does not currently have an infectious disease standard, but recognizes the need for one.

The OSHA Bloodborne Pathogens Standard (29 CFR 1910.1030) requires that all blood and body fluids, and other potentially infectious material, be treated as potentially infectious and that universal precautions are required to prevent contact with skin, eyes, mouth, and mucous membranes. The standard also requires that employers provide appropriate PPE, in addition to requiring a comprehensive exposure control plan and annual worker training.

The OSHA Personal Protective Equipment (PPE) Standard (29 CFR 1910, Subpart I) requires that employers assess the workplace, determine the presence of hazards, and then choose appropriate PPE to protect workers. Workers must don (put on) and use PPE properly, in order to achieve the intended protection and minimize the risk of infection. Workers should doff (remove) PPE in a way that avoids self-contamination. General requirements include PPE and a hazard assessment to determine whether or not PPE is necessary.

The Respiratory Protection Standard (29 CFR 1910.134) requires employers to identify respiratory hazards, and to use feasible engineering controls to reduce such hazards. When engineering controls are insufficient, employers must select respirators that are appropriate to the existing hazards, and develop a written respiratory protection program that details

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selection, types of respirators, fit-testing, medical evaluations, maintenance and care, training/ retraining, and evaluation. The employer is required to develop and implement a respiratory protection program if any employee is required to wear a respirator. Selection of appropriate respiratory protection is critically important for aerosol transmissible infectious pathogens, and for any other airborne infectious diseases. OSHA designates an assigned protection factor (APF), which is the workplace level of protection that a type of respirator is expected to provide.

The Hazardous Waste Operations and Emergency Response (HAZWOPER) standard (29 CFR 1910.120) applies to infectious materials. It describes health hazards from a hazardous substance, which could include infectious material associated with the worksite or emergency site. The standard defines a hazardous substance to include any biologic agent and other disease-causing agent that may cause negative health effects. HAZWOPER training levels include first responder awareness level, first responder operations level, and technical level.

The Centers for Disease Control (CDC) guidance is considered the authoritative source of information on infection control in the U.S. CDC guidance is primarily developed for the public and public health professionals, not for occupational health. However, the National Institute for Occupational Safety and Health (NIOSH) guidance is specifically focused on worker protection.

Additional standards and guidelines for infectious diseases include the following:

- **Interim Planning Guidance for Handling Category A Solid Waste:** Consolidated overview of regulations, which provides information and guidance on the proper management and handling of waste materials.
- **Cal-OSHA Aerosol Transmissible Diseases Standards:** OSHA state plan for California, which requires covered employers to develop a comprehensive exposure control plan for Aerosol Transmissible Diseases (ATDs).
- **DOT-SP 16279:** An Ebola-specific special permit, released by the Federal Department of Transportation Pipeline Hazardous Materials Safety Administration (PHMSA), that allows for different sizes of packaging to accommodate larger volumes of contaminated waste.
- **EPA RCRA Regulations:** The EPA Resource Conservation and Recovery Act deals with the proper management of waste materials, specifically those wastes that are considered a hazardous waste under these regulations.