

OSHA RULE APPLIES TO OCEAN LIFEGUARD POSITION & MOUTH-TO-MOUTH
RESUSCITATION TASK

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On December 6, 1991, the Occupational Safety and Health Administration (OSHA), the United States Department of Labor, issued its final rule regarding "Occupational Exposure to Bloodborne Pathogens." This OSHA regulation applies to job classifications and tasks which pose a "reasonably anticipated occupational exposure to blood or other potentially infectious material." The OSHA regulation provides that employers "shall make available the hepatitis B vaccine and vaccination series to all employees who have occupational exposure and post-exposure evaluation and follow-up to all employees who have had an exposure incident." The employer is also required to "establish and maintain an accurate record for each employee with occupational exposure." Further, the employer must "ensure that all employees with occupational exposure participate in a training program which must be provided at no cost to the employee and during working hours."

Within this context, "bloodborne pathogens" is defined, in pertinent part, as "microorganisms that are present in human blood and can cause disease in humans," such as hepatitis B virus and HIV - human immunodeficiency virus. Further, the regulatory definition of "Other Potentially Infectious Materials", in pertinent part, includes "any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids." However, urine and feces are not considered to be such body fluids "unless they were visibly contaminated with blood."

According to OSHA, "Occupational Exposure is one of the key terms upon which the standard rests" because this term contains "the criteria which trigger application of the final standard." Specifically, "Occupational Exposure" is defined as "reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties."

In addition to being reasonably anticipated, the contact must result from the performance of an employee's duties. An example of a contact with blood and other potentially infectious materials that would not be considered to be an "occupational exposure" would be a "Good Samaritan" act. For example, one employee may assist another employee who has a nosebleed or who is bleeding as the result of a fall. This would not be considered an occupational exposure unless the employee who provides assistance is a member of a first aid team or is otherwise expected to render medical assistance as one of his or her duties.

Pursuant to this regulation, employer's must make a written determination which identifies "those tasks and procedures where occupational exposure may occur and to identify the positions whose duties include those tasks and procedures identified with occupational exposure." This occupational exposure determination is to be made "without regard to the use of personal protective equipment."

As described below, OSHA identified ocean lifeguards in the final rule as a position or job classification involving occupational exposure. All lifeguards, however, would require appropriate and easily

accessible personal protective equipment for mouth-to-mouth resuscitation. Specifically, mouth-to-mouth resuscitation by emergency and public safety personnel is identified in the regulation as a task or procedure involving occupational exposure to potentially infectious materials.

Ocean Lifeguards

When the Federal Occupational Safety and Health Administration (OSHA) issued its proposed rule on bloodborne pathogens, ocean lifeguards "were not included in the discussion of scope in the proposed standard." However, based upon evidence received on the record during the rulemaking process, OSHA subsequently added the following discussion of ocean lifeguards as "employees who have occupational exposure" subject to the requirements of the final rule issued in the Federal Register, December 6, 1991. Specifically, OSHA found that reasonably anticipated occupational exposure of ocean lifeguards to bloodborne pathogens "comes from saving and performing life saving procedures on victims of swimming, boating or fishing accidents."

One dangerous aspect of their work is that lifeguards usually cannot use personal protective equipment during the rescue operation; lifeguards do not have access to dry dressings and gloves in the water. They use their bare hands to apply direct pressure to stop a victim's bleeding.

The first possibility of exposure in a rescue, therefore, is due to the prolonged and extensive direct contact between the rescuer and his victim in the presence of body fluids. This may include blood contact from holding the victim or saliva contact from administering "mouth-to-mouth resuscitation". A second avenue of exposure is medical waste that has been thrown or washed up on beaches. One report noted that a lifeguard stepped on a hypodermic needle while walking on the beach, subsequently receiving a gamma globulin vaccination.

While acknowledging that "these duties must be performed under hazardous or hostile conditions, in the water or in a boat and while wearing only a bathing suit" and "the difficulties associated with the use of protective clothing and equipment," OSHA, nevertheless, concluded that "training, the hepatitis B vaccine, postexposure follow-up, and other provisions of the standard will reduce the likelihood of infection caused by occupational exposure to bloodborne pathogens." OSHA made its determination based upon the following evidence contained on the record in support of its final rulemaking determination:

OSHA was first made aware of the risks faced by ocean lifeguards in testimony by Mr. Ken Gunther representing a number of life saving associations and the Health Risk Duty Imperative of Ocean Lifeguards (HRDIOL) project. His testimony, first delivered at the Washington, D.C. hearings pointed to the occupational exposure to blood and other potentially infectious materials encountered by these employees.

When OSHA held hearings in Miami, Florida on December 20, 1989, Mr. Gunther and 29 other lifeguards testified in detail as to the duties that place lifeguards at risk for blood exposure. Dr. Jim Dobbins, an epidemiologist, and a member of the Gulf Coast Region of the United States Life Saving Association, described the most common risk

situations:

In general, lifeguards are exposed in the course of their duties to blood and bloodborne pathogens in two ways. Contact exposure when both the victim and the lifeguard are cut in the process of a rescue near rocks and pilings in the water, and after the rescue during attempted resuscitation and stabilization of the victim.

These routine exposures are separate from the sort of incidents that involve blood exposure through trauma and boating accidents, automobile crashes in the water or unusual injuries on the beach, or plane crashes.

OSHA noted that other situations were identified in the testimony from other lifeguards "pointed out other conditions that injure swimmers or other beach patrons and require the assistance of the lifeguard, thereby resulting in occupational exposure to the lifeguard."

Patrons suffer lacerations from rocks, shells, broken glass, fish hooks, or reefs. Swimmers may be injured when the surf propels them into jetties, rock groins, piers, pilings covered with barnacles, or underwater rebars from demolished piers. Swimmers may be stung by a man-of-war or attacked by shacks, barracudas, blue fish or moray eels. Surfers may suffer head or body trauma or skeg cuts from surfboards. Fist fights and bottle fights are not uncommon, and motor vehicle accidents are a problem on beaches where vehicles are allowed. Boating accidents are a common occurrence, and witnesses described several incidents that required the rescue of persons who had been run over by a boat with an outboard motor.

Other witnesses testified to rendering emergency medical assistance to swimmers who had been struck by lightning or shot with spear guns. One witness assisted in the care of an individual who had fallen to the beach from a hotel balcony. Another witness described his attempt to rescue a terminally ill, despondent man who was attempting to commit suicide by drowning. Several witnesses described their attempts to rescue pilots of planes that crashed just off shore.

Based upon such testimony, OSHA found that "[s]ome of the duties performed by these ocean lifeguards are similar to those performed by emergency medical technicians (EMTs) who are members of EMS, fire departments or rescue squads, and, indeed, many ocean lifeguards are EMTs and some are paramedics." Given the required "reasonably anticipated occupational exposure to bloodborne pathogens," employers of ocean lifeguards would be required to conform to this federal regulation.

Exposure Task Mouth-to-Mouth Resuscitation

With respect to preventing mucous membrane contact, the proposed standard required that emergency ventilation devices also fall under the scope of personal protective equipment and hence be provided by the employer for use in resuscitation. OSHA based this requirement on the possibility of employee exposure to blood or other potentially infectious materials in the mouth or in fluids that may be expelled

by the patient during resuscitation. As noted by OSHA, "as little as one cubic centimeter (cc) of HBV positive blood can contain one hundred million infectious doses of Hepatitis B virus."

Mechanical respiratory assist devices (e.g., bag-valve masks, oxygen demand valve resuscitators) should be available on all emergency vehicles and to all emergency response personnel that respond or potentially respond to medical emergencies or victim rescues. Pocket mouth-to-mouth resuscitation masks designed to isolate emergency response personnel (i.e., double lumen systems) from contact with the victim's blood and blood-contaminated saliva, respiratory secretions, and vomitus should be provided to all personnel who provide or potentially provide emergency treatment.

Accordingly, OSHA found that "minimization of mouth-to-mouth resuscitation is prudent practice and that the most effective means to do so is to require ventilation devices be provided for resuscitation." Specifically, OSHA stated that "these devices have been retained under the requirements for provision of personal protective equipment." Further, the regulation would require "these devices are to be readily accessible to employees who can reasonably be expected to resuscitate" a victim.

In the final rule, OSHA addressed public comments that "some of the devices failing under the nomenclature of 'masks', 'mouthpieces', 'resuscitation bags', and 'shields/overlay barriers' may not be protective or could be improperly used by non-medical personnel." In response, OSHA expressed its reluctance "to prohibit use of specific types of resuscitation devices simply because some may not be protective under certain circumstances."

There are many different personal protective equipment designs currently being marketed or being developed. OSHA believes that by choosing to apply a blanket prohibition to certain device types, the standard could become technology-limiting and it is not the Agency's intent to discourage development of safer and more protective devices. Moreover, it should be remembered that the same test of "appropriate" applies to emergency resuscitation devices as it does to other personal protective equipment. OSHA also believes that the issue of improper use of these devices has been addressed by this standard which requires that employees be trained in the types, proper use, location, removal, handling, decontamination, and disposal of personal protective equipment.

Universal Precautions Public Safety Workers

Particularly for public safety workers, the preferred method of compliance with these OSHA requirements is referred to in the regulation as "Universal Precautions." The regulation defines "Universal Precautions" as "a method of infection control in which all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens." OSHA adopted universal precautions for public safety workers based upon the following "guidelines issued by the Centers for Disease Control in 1989 extend the use of universal precautions to all body fluids in certain situations":

When emergency medical and public-safety workers encounter body fluids under

uncontrolled. emergency circumstances in which differentiation between fluid types is difficult, if not impossible, they should treat all body fluids as potentially hazardous.

The unpredictable and emergent nature of exposures encountered by emergency and public-safety workers may make differentiation between hazardous body fluids and those which are not hazardous very difficult and often impossible. For example, poor lighting may limit the worker's ability to detect visible blood in vomitus or feces. Therefore, when emergency medical and public-safety workers encounter body fluids under uncontrolled, emergency circumstances in which differentiation between fluid types is difficult, if not impossible, they should treat all body fluids as potentially hazardous.

Work Practice Controls & Protective Equipment

Within this context, "Work Practice Controls" reduce the likelihood of exposure by altering the manner in which a task is performed. Specifically, such work practice controls eliminates or minimizes "the possibility for exposure to blood, or other potentially infectious materials... by alteration of the way in which the employee performs the task." Where such controls fail to eliminate "occupational exposure", the OSHA regulation requires "the employer shall provide, at no cost to the employee. appropriate personal protective equipment such as, but not limited to, gloves... face shields or masks and eye protection, and mouthpieces, resuscitation bags, pocket masks, or other ventilation devices."

Personal protective equipment will be considered "appropriate" only if it does not permit blood or other potentially infectious materials to pass through to or reach the employee's work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used. The employer shall ensure that appropriate personal protective equipment in the appropriate sizes is readily accessible at the worksite or is issued to employees.

The employer shall ensure that the employee uses appropriate personal protective equipment unless the employer shows that the employee temporarily and briefly declined to use personal protective equipment when, under rare and extraordinary circumstances, it was the employee's professional judgment that in the specific instance its use would have prevented the delivery of health care or public safety services or would have posed an increased hazard to the safety of the worker or co-worker. When the employee makes this judgement, the circumstances shall be investigated and documented in order to determine whether changes can be instituted to prevent such occurrences in the future.

THE EXPOSURE CONTROL PLAN

The OSHA standard requires a written "Exposure Control Plan" which contains the employer's exposure determination for employee(s) with occupational exposure. This exposure determination shall be made without regard to the use of personal protective equipment and "identify those tasks and

procedures where occupational exposure may occur and to identify the positions whose duties include those tasks and procedures identified with occupational exposure" as follows:

- (A) A list of all job classifications in which all employees in those job classifications have occupational exposure;
- (B) A list of job classifications in which some employees have occupational exposure, and
- (C) A list of all tasks and procedures or groups of closely related task and procedures in which occupational exposure occurs and that are performed by employees in job classifications in which some employees have occupational exposure.

In addition, the exposure control plan must address the following requirements: the schedule and method of implementation; Methods of Compliance; Hepatitis B Vaccination; Post-Exposure Evaluation and Follow-up; Communication of Hazards to Employees; and Recordkeeping. Further, each employer shall ensure that a copy of the Exposure Control Plan is accessible to employees and available to OSHA for examination and copying. Employers are also required to review and update the Exposure Control Plan "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."

According to OSHA, the Exposure Control Plan "is a key provision of the standard because it requires the employer to identify the individuals who will receive the training, protective equipment, vaccination, and other provisions of this standard." Specifically OSHA found a written plan "would serve as an on-site adjunct to the overall infection control plan and reinforce mandated educational training programs. Further, OSHA found that a written plan would be "important for enforcement."

By reviewing the Plan, the OSHA Compliance Officer will be able to become familiar with the employer's determination of tasks and procedures with occupational exposure, the job classifications whose duties include identified tasks, and the implementation and revisions to the Exposure Control Plan... [plus the requirement] that the Exposure Control Plan be explained as part of the employee training program.

Based upon public comment, OSHA agreed that the required Exposure Control Plan could be incorporated "into existing infection control plans currently in place."

It is not OSHA's intent for employers to duplicate current policies, however, if the Exposure Control Plan is incorporated into existing manuals, all requirements of the regulation must be followed... [C]ompliance with this rule should be approached as a part of the larger program to control all health and safety hazards in health care and public-safety workplaces.

When such plans exist, it would be an unnecessary and wasteful use of resources to develop independent plans, policies and procedures solely to administer the requirements of this rule. When they already exist, infection control plans, health and

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safety programs, training programs, and the like should be reviewed and modified as necessary to ensure that all of the requirements of this rule are addressed as an integral part of those more comprehensive plans.

Therefore, the final standard requires a written Exposure Control Plan, but does not prohibit the plan from being part of a larger document. In the proposed standard, OSHA stated that an annotated copy of the final standard would be sufficient to meet the requirement for the Exposure Control Plan to state when and how the employer will implement the provisions of the standard.

Accordingly, OSHA acknowledged that "an annotated copy of the final standard would be adequate for most small facilities." On the other hand, OSHA opined that "[l]arger facilities could develop a broad facility-wide program incorporating provisions from the OSHA standard that apply to their establishments."

This OSHA rule became effective March 6, 1992. Exposure control plans are required by May 5, 1992. Additional information on this OSHA regulation will be forthcoming in NRPA publications and through the NRPA Division of Public Policy. The final rule also lists the following contact for further information: Mr. James F. Foster, OSHA, U.S. Department of Labor, Office of Public Affairs, Room N3647, 200 Constitution Avenue, N.W., Washington, D.C. 20210, Telephone: (202) 523-8151.

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