Bloodborne Pathogens: Best Practices for Industry

Bloodborne Pathogen Concerns

Bloodborne pathogens are a big cause of concern for companies. Although the Bloodborne Pathogen Standard at 29 CFR 1910.1030 appears to be targeted toward hospitals, doctors’ offices, and other healthcare institutions, every industrial site must be aware of their own bloodborne pathogen compliance issues.

Bloodborne Pathogens

Bloodborne pathogens are pathogenic microorganisms that can be transmitted from one person to another through human blood or human blood products or components. The main pathogens covered by this regulation are human immunodeficiency virus (HIV) and the hepatitis B and C viruses. However, bloodborne pathogens include malaria, syphilis, and others.

Human Immunodeficiency Virus (HIV)

HIV causes acquired immunodeficiency syndrome (AIDS), an incurable disease. There are no second chances with HIV.

Hepatitis B and C Viruses

Hepatitis has several forms that may infect employees. Hepatitis B virus (HBV) and hepatitis C virus (HCV) are just two forms.

HBV is passed through blood, other potentially infectious materials, needlesticks, or any activity where an employee may come in contact with these items. Although curable, the treatment may take many months of medication before the disease organism is destroyed. HBV can be life threatening if left untreated.

HCV invades the liver causing the formation of scar tissue, called cirrhosis, which may lead to liver failure. HCV can be transmitted by blood-to-blood contact. The symptoms develop very slowly and most people don’t know they are sick for 10-20 years. There are an estimated four million people infected with HCV (four times the number infected with HIV). No effective treatment or cure has been discovered.

Other Potentially Infectious Materials (OPIM)

Not only can pathogens be found in blood, they can also be found in certain other body fluids and tissues known as “other potentially infectious materials” (or OPIM). These specific body fluids and tissues are listed in the regulation. However, some body fluids are only regulated if they are visibly contaminated with blood. For example, urine, feces, and vomit are not efficient modes of transmission; therefore, they are only regulated if they contain visible blood. Saliva too is not regulated unless it contains visible blood or is present in dental procedures. It should be noted that under fluorescent lights, blood will often appear black rather than red.

Applicability of the Bloodborne Pathogen Standard

Obviously medical doctors, nurses, hospital custodians, emergency medical technicians, and other medical personnel need to be trained about bloodborne pathogens. Employees who routinely deal with human blood or OPIM must use safe work practices to make sure they are not infected by diseases that can make them severely ill or kill them. But what about the typical industrial site that is not a medical setting?
facility? Certainly many industries have their own medical department or nursing department that must be in compliance with bloodborne pathogen regulations. But what about the balance of the workforce?

Many industrial sites wrongly think that the Bloodborne Pathogens Standard does not apply to their facility because they are not in a healthcare setting. But non-healthcare employers can easily wind up being covered by this standard. How? The answer is found in two important words — occupational exposure. General industry employers with one or more employees with “occupational exposure” are covered by §1910.1030.

Occupational exposure is reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or OPIM that may result from the performance of an employee’s duties. The term “reasonably anticipated contact” means potential as well as actual contact. Even if employees have not had an actual exposure incident with blood, the regulation may still apply.

OSHA has also said that this contact must result from the performance of an employee’s duties. What duties have you assigned to your employees and what duties do you expect of them? Maybe you have an office worker. You would not reasonably anticipate that working at a desk would involve contact with blood or OPIM. However, what if in addition to working at a desk, you also require this particular office worker to perform medical first aid involving blood-related injuries of co-workers. Now that office worker has reasonably anticipated contact with blood that results from the performance of the office worker’s duties. Therefore, because this employee has “occupational exposure,” that employee would be protected by the Bloodborne Pathogen Standard.

**Job classifications**

OSHA has not listed the jobs or tasks that have occupational exposure. Instead, the agency requires you to make that determination. Yet there are many occupations listed in this section that “may” have occupational exposure, but not necessarily in all cases. You’ll note that not all of these occupations are found in the healthcare industry. Also, this section does not list all possible job classifications that may have occupational exposure. However, it should serve as an advisory section that causes you to think about all job classifications and whether or not there is an identifiable risk to your employees.

Let’s take a moment and look at some of the typical “industrial” job classifications that may require compliance with §1910.1030:

- **Barbers & beauticians** use sharp instruments to cut hair for their clients. One small slip could result in an injury to their client and an exposure to the employee. Clients may also have open sores or other injuries that may pose a risk to the employee.

- **Correctional workers & law enforcement officers** work in a high-risk specialty and often come in contact with blood and OPIM as part of their daily work activities.

- **Day care center workers** are routinely exposed to blood and OPIM as they care for the children entrusted to them.

- **Environmental, health, and safety (EH&S) specialists** may be representatives of the union or may be management personnel with the responsibility to protect the workforce. They may be involved with collecting environmental samples from sewers or other areas that may contain blood and/or OPIM. EH&S specialists are also routinely called upon to investigate or cleanup industrial accidents that involve major injury to an employee. Industrial equipment may be heavily contaminated with blood and/or OPIM.

- **Industrial firefighters and fire brigades** do much more than fight fires. Their first responsibility is the protection of human life, followed by minimizing property damage. Their job may involve caring for injured members of the public. Industrial firefighters are often called upon to perform duties that may expose them to blood or OPIM.

- **First aiders** identified by the employer as responsible for rendering medical assistance as part of their job duties are covered by the standard. However, an employee who routinely provides first aid to fellow employees with the knowledge of the employer may also fall, de facto, under this designation, even if the employer has not officially designated this employee as a first aid provider. Lack of history of blood exposures among designated or de facto first aid personnel of a particular manufacturing site, for instance, does not preclude coverage.

- **Housekeeping staff & janitors** must clean up after any number of industrial situations. They may be in charge of disposing of blood-contaminated broken glass, razor blades, or sharp metal or waste contaminated with blood. And they may be called upon to clean and disinfect contaminated work surfaces.
• **Laboratory technicians** may have occupations that involve handling or studying human blood, body fluid visibly contaminated with blood, or OPIM.

• **Laundry workers** are responsible for cleaning a wide variety of work uniforms, coveralls, industrial rags, and other materials that may be contaminated with blood and OPIM.

• **Maintenance workers** may not be exposed to bloodborne pathogens on a regular basis, but their work assignments must be evaluated. This is particularly important if they must work on equipment or machines that are routinely contaminated with blood or OPIM.

• **Plumbers & pipefitters** performing repairs on pipes or drains in laboratories, operating rooms, or mortuaries may have occupational exposure to blood or OPIM. While recognizing that contact with raw sewage and wastewater pose a number of health hazards, OSHA does not generally consider the contact with diluted raw sewage or wastewater (e.g., not originating directly from a healthcare facility or other source of bulk blood or OPIM) to be related to bloodborne pathogens. Nevertheless, all employers are responsible for determining which, if any, employees have occupational exposure.

• **Security personnel** are often assigned duties that may involve injured workers or providing medical assistance.

• **Solid waste handling service workers** pick up and sort household and industrial waste that may contain contaminated needlesticks or blood-contaminated waste.

• **Wastewater treatment plant operators** generally, are not considered to have occupational exposure, but sewage or wastewater originating from a healthcare facility or other source of bulk blood or OPIM may pose occupational exposure. Still, the employer must determine whether occupational exposure exists.

The key aspect for determining if employees are covered by the Bloodborne Pathogen Standard is to clearly document whether there is a reasonable chance that the employee will be exposed to blood or OPIM when performing his or her job duties. The employer would not reasonably anticipate that contact with blood and OPIM would occur when an employee is driving a bus down the highway or is processing insurance claims in an office setting. However, an employee whose job includes the cleaning and decontaminating of blood-contaminated areas or surfaces (such as janitorial staff), for instance, would be considered to have occupational exposure.

**Good Samaritans**

An example of contact with blood and OPIM 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 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.

Since accidents and unexpected illness can occur in any workplace, exposure to blood is a theoretical possibility in all working environments. Many workplaces have employees whose duty is to provide first aid or medical assistance, and employers must provide them with the protection of the standard. However, OSHA has concluded that it would be needlessly burdensome to require that all employers, including those where none of the employees have duties that can reasonably be expected to result in contact with blood and OPIM, implement the provisions of the standard based on the “chance” that an employee will have contact with blood and OPIM while performing a task that he or she is not required to do.

**Written exposure control plan**

The most common citation written under the Bloodborne Pathogen Standard is for an inadequate written exposure control plan (ECP). The employees may all be trained, the proper personal protective equipment available, and the employees fully protected, but a citation may still be issued if the written plan does not meet the “letter of the law.” The ECP is designed to help you eliminate or minimize employee exposure to blood or OPIM. At a minimum, the plan must include the elements listed at §1910.1030(c)(1)(ii), (iv), and (v). These elements are summarized below:

• The exposure determination;

• Procedure for evaluating exposure incidents;

• Schedule and method for implementing the paragraphs of the regulation;
• Solicitation of input from non-managerial employees responsible for direct patient care who are potentially exposed to injuries from contaminated sharps, in order to identify, evaluate, and select effective engineering and work practice controls; and

• Annual consideration and implementation of changes in technology and safer medical devices.

Be sure to provide all the written elements required by §1910.1030(c)(1), even the ones that do not appear to apply to your location. For those elements that do not apply, OSHA has suggested including a statement that the element does not apply to you. For example, you might state, “Employees who have occupational exposure at the facility do not have duties that involve medical devices; therefore, 29 CFR 1910.1030(c)(1)(iv)(B) does not apply to the facility.” Another example might be, “Our employees with occupational exposure are not responsible for patient care; therefore, 29 CFR 1910.1030(c)(1)(v) does not apply to the facility.”

Other issues to consider when completing your written plan include:

• Are there areas in the facility that have not been thoroughly evaluated in relation to bloodborne pathogens? These areas might include refrigerators where blood, OPIM, or regulated waste are stored; nurse’s stations; sharps container areas; laundry areas; personal lockers that might store contaminated coveralls; and many other areas where blood and/or OPIM are more common than normally expected.

• Have you included your exposure determination? Your exposure determination is based on the definition of occupational exposure without regard to personal protective clothing or equipment. For this determination, you’ll review job classifications within your workplace and list exposures into two groups. The first group includes job classifications in which all of the employees have occupational exposure at your facility, like operating room scrub nurses. For jobs in this group, it’s not necessary to list specific work tasks. Just list the jobs. Then your second group will include those classifications in which some of the employees have occupational exposure. For these cases, specific tasks and procedures causing occupational exposure must also be listed. A general industry example might be in your custodial department. Perhaps only some of your custodians are assigned to the task of handling blood spills while other custodians are not. In that case, your company would list Custodians in the second group and then list something like Blood Spill Clean Up Tasks for that group. Keeping these lists updated may avoid a citation.

• Employees who are likely to be exposed to blood or OPIM must be trained within 10 days of being assigned. Many companies now have their newly hired employees complete any necessary hours of environmental, health, and safety training BEFORE they actually begin working in the facility. This ensures that employees have received adequate training in the extensive EH&S rules of the workplace they need before they have a chance for exposure.

• Who will perform training and annual retraining? Trainer qualifications are found in the regulation. How will you document that training was performed? Always make sure that training sessions are well documented and that employees are required to sign-in for each session.

• Who will be offered the HBV immunizations? Certainly all employees who have occupational exposure must be offered the vaccine with some exceptions, but other employees may feel that they need the vaccine “just in case.”

• Will you offer HBV immunizations to your first aid providers? An OSHA compliance directive has instructed agency inspectors to issue citations when designated first aid providers, who have occupational exposure, are not offered the hepatitis B vaccine before they are exposed unless certain conditions are in place as specified in the citation policy for first aid providers found in OSHA directive CPL 02-02-069, Enforcement Procedures for the Occupational Exposure to Bloodborne Pathogens. One of the conditions in the citation policy requires that certain special elements be provided in the ECP. Make sure your plan is not missing these elements should you take this option. This condition and others are spelled out in greater detail later in the Vaccination section.

• How will you make decontamination equipment and personal protective equipment available? Who will be responsible for small events where blood is spilled on machinery? Supervisors may be the logical choice, but they may be resistant to additional responsibilities outside their expertise.
• Is appropriate or alternate clothing available for the employee whose clothing becomes blood-soaked? You don’t want to send an employee home in blood-soaked clothing, contaminating their vehicle and increasing risk to their family in the process.

• Since regulated waste (as defined in the regulation) must be properly marked, are the proper labels or biohazard containers readily available to the workforce?

• Although there are many types of sharps containers available for the medical community, where will you put a 24-inch piece of steel or control box that has been contaminated with blood or OPIM? A properly labeled plastic drum may solve the problem for large contamination events.

• Will laundry be done in-house or shipped to an outside service? If you send laundry to an outside service, the plan must identify how the vendor will be warned of the contaminated laundry so that they can clean the laundry in a safe manner.

• Is there an enforced policy for employees reporting exposure incidents? Detailed follow-up of exposed employees should be done immediately because of the risk of HIV or hepatitis infection to employees who were involved.

• Do you have a clearly defined procedure for handling post-exposure cases. The employee who has just been exposed to blood or OPIM will be extremely concerned. Should he or she hug his or her children or grandchildren? Is his or her spouse safe? Will the employee die from the exposure? Will his or her test results be confidential? The employee may be under considerable stress after an exposure and will have many questions that will need to be answered. The post-exposure evaluation and follow-up provisions provide for that sort of counseling.

• How are you going to keep your sharps injury log? The regulation calls for you to establish and maintain a sharps injury log for the recording of “percutaneous” injuries from contaminated sharps, if your establishment falls under 29 CFR 1904 recordkeeping. You are permitted to determine the format in which the log is maintained (e.g. paper or electronic) and may include information in addition to that required by the standard, so long as the privacy of the injured employee is protected. You may elect to use the OSHA 300 and 301 forms to meet the sharps injury log requirements, provided two conditions are met. We go over those conditions in the Recordkeeping section.

• How are you going to keep information about an employee who suffers an exposure incident confidential? Record and maintain the information in the sharps injury log to protect the confidentiality of the exposed employee. If this information is shared with other employees or management, you need to withhold the exposed employee’s identity as well as any identifying information.

• How will you review and update the ECP at least annually and whenever necessary to reflect: new or modified tasks or procedures which affect occupational exposure, new or revised employee positions with occupational exposure, changes in technology, safer medical devices, and input from non-managerial employees responsible for direct patient care who are potentially exposed to injuries from contaminated sharps?

• Who’s responsible for what in multi-employer situations, such as the hire of contract housekeepers who perform blood spill cleanup? Be sure this is worked out in the contract and explained in your ECP.

**Engineering controls vs. work practice controls**

"Engineering controls means controls (e.g., sharps disposal containers, self-sheathing needles, safer medical devices, such as sharps with engineered sharps injury protections and needleless systems) that isolate or remove the bloodborne pathogens hazard from the workplace." (29 CFR 1910.1030(b))

Industry is well acquainted with using engineering practices to control workplace hazards. However, the engineering department may not be the best source of information on engineering controls for bloodborne pathogens. Since the medical and janitorial departments of the average industrial site may be major groups at risk, they may also be the most important sources of engineering control information.

Engineering control for bloodborne pathogens involves some very specific control strategies. In the medical department, engineering controls consist of using special disposal containers to make sure that contaminated “sharps” (needles, scalpel blades, etc.) cannot injure other employees. Self-sheathing needles may also be examples of engineering controls.
Most industrial locations, outside the medical department, will have very few choices for engineering
controls. “Contaminated” razor blades, knives, metal, broken glass, or other sharp items will call for a
properly labeled contaminated sharps disposal container. If these items are not contaminated, they are
not regulated by the Bloodborne Pathogens Standard. Although, you may want employees to use an
“uncontaminated” sharps container for their disposal.

You may wish to look for safer razor blades to prevent finger cuts and prevent contamination that calls
for cleanup. Also, try to eliminate sharp edges, pinch points, and run-in points to minimize
contaminating these surfaces.

OSHA requires that you examine and maintain or replace your engineering controls on a regular
schedule.

"Work practice controls means controls that reduce the likelihood of exposure by altering the manner
in which a task is performed." (29 CFR 1910.1030(b))

In the industrial setting, work practice controls will be one of the most effective methods of minimizing
the risk of exposure. Key work practice control methods that are effective in industry include
combinations of the following procedures:

- Assume that all human blood and OPIM are infectious for bloodborne pathogens.
- In areas where a reasonable likelihood of exposure exists, you might need to restrict eating,
drinking, smoking, applying cosmetics or lip balm, and handling contact lenses.
- Wash your hands when you remove your gloves after an occupational-exposure-related task
and as soon as possible after your skin contacts any blood or OPIM. Don’t take breaks from
exposure areas (even for a cigarette) without washing your hands.
- When equipment gets contaminated, examine it prior to shipping and, if necessary,
decontaminate it, unless you can show that this is just not feasible.
- Do not recap, bend, cut, or break needlesticks. Immediately dispose of contaminated sharps in
a nearby sharps container.
- Pick up broken glass with tongs, tools, dustpans, or some other method.

All managers are painfully aware of the risk of lawsuits in the modern industrial world. While the odds
of an industrial worker contracting a bloodborne pathogen disease due to an on-the-job injury are very
low, industry must be prepared to document that they have taken all possible precautions to minimize
risk to the employee.

Personal protective equipment (PPE)

Remember, it does little good to provide extensive training programs on bloodborne pathogens unless
the employees are provided with the proper equipment. If bloodborne pathogen exposure cannot be
eliminated with engineering controls or if those controls are infeasible, use of PPE is the next best
precaution for protecting the employee from exposure. Put another way, when employees are expected
to use universal precautions, the proper PPE must be readily available and easily accessible.

PPE for bloodborne pathogens includes, but is not limited to, gowns, aprons, lab coats, suits, face
shields or masks and eye protection, shoe covers or boots, and surgical caps or hoods. Also,
mouthpieces, resuscitation bags, pocket masks, and other ventilation devices are considered PPE.

PPE is only appropriate if it does not allow blood or OPIM to pass through or reach your employees’
work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under
normal conditions. Even a pin hole in a glove is not considered appropriate because blood could reach
the skin. Moreover, you want the PPE to fit your employees. If PPE does not fit correctly, it could
cause tearing or inadvertently expose skin. Or worse, employees may refuse to wear it.

It’s also your duty to make sure that PPE is properly used, cleaned, laundered, repaired, or replaced as
needed, or discarded. While §1910.1030 goes over several precautions for safely handling and using
PPE, one of the most important ones is making sure that employees remove PPE before leaving the
work area and after a garment gets contaminated.

Gloves

Gloves must be worn when hand contact with blood or OPIM is reasonably anticipated. Although latex
gloves are the most common type used for protection from bloodborne pathogens, keep in mind that
many other types are available. Latex gloves are normally used by medical personnel because they need to “feel” their patient and their equipment while working. However, these may not be the best choice for industrial use because they are easily torn. Other glove types may suffice for and stand up to the activities your employees will perform. Heavy duty latex, rubber, polyurethane, and vinyl gloves are often more appropriate for industrial use. These heavy duty gloves will withstand industrial use and can be decontaminated for reuse if necessary.

Also, allergic reaction to latex gloves and to the powder inside them is a common problem. Ensure that you maintain a readily accessible selection of non-latex and powderless gloves in several sizes. Hypoallergenic gloves, glove liners, powderless gloves, and other similar alternatives must be readily accessible to those who are allergic to normally provided gloves.

**Other PPE**

Gloves are not the only PPE that may be needed. When splashes, sprays, spatters, or droplets of blood or OPIM pose a hazard to the eyes, nose, or mouth, then employees need to wear appropriate face and eye protection too. An apron, gown, or suit may also be necessary depending on the degree of exposure anticipated.

A face shield or a mask in combination with eye protection should be used during all blood or OPIM cleanups, for example. Cleanup workers should be reminded to avoid touching their eyes with contaminated gloves or hands.

Paper garments are disposable and should protect the clothing of cleanup workers. Look for suit material that “breathes” while protecting the employee. This minimizes the chance of heat stress. These garments come in a variety of styles including lab coats, aprons, gowns, coveralls, and hooded coveralls with booties.

Shoe/Boot covers may be needed to prevent contamination of expensive footwear and minimize “tracking” the material throughout the workplace. However, OSHA only requires shoe/boots covers in instances when gross contamination can reasonably be anticipated.

Respirators will not normally be needed unless the area is being powerwashed. Powerwashing should only be used after the area has been thoroughly soaked with disinfectant for several hours before powerwashing. Use a HEPA-filter respirator under these conditions.

As mentioned earlier, ventilation devices like mouthpieces and pocket masks are considered PPE. You will want to ensure that your first aid providers have these devices for protection. Not all cardiopulmonary resuscitation events will involve ordinary saliva. Some may present saliva with visible blood or a blood-related injury to the face.

**Cleanup procedures**

All equipment and working surfaces must be cleaned and decontaminated after contact with blood or OPIM. Small amounts of blood or OPIM from an injured employee may be cleaned up by that employee or someone trained and designated for the job. However, no matter who performs the cleanup, the appropriate disinfectant must be used.

That ordinary citrus-smelling cleaning solvent you find in the grocery store may not meet OSHA requirements. Alcohol, too, is not an appropriate disinfectant under the Bloodborne Pathogens Standard. “Appropriate” disinfectants include a diluted household bleach solution and EPA-registered tuberculocides (List B), sterilants registered by EPA (List A), products registered against HIV/HBV (List D), or sterilants/high level disinfectants cleared by the Food and Drug Administration. Lists of agency-registered products are available on the web:

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For bleach solutions, OSHA calls for a 1:100 dilution (1 part sodium hypochlorite to 100 parts water) to decontaminate nonporous surfaces after cleaning a spill of either blood or OPIM in patient-care settings. If a spill involves large amounts of blood or OPIM, or if a blood or culture spill occurs in the
laboratory, OSHA suggests using a 1:10 dilution (1 part sodium hypochlorite to 10 parts water). Commercial solutions are available in most industrial supply catalogs.

You may wish to provide cleanup kits in the immediate work area where cuts and scrapes are likely. These kits can be basic, containing a pair of latex gloves, bandages, and appropriate disinfectant towelettes. However, when “major” injuries occur, something more than a basic cleanup kit will be necessary and the injured employee is unlikely to be in any condition to clean up after himself or herself. When other employees are designated and called upon to clean up blood or OPIM in the workplace, they should follow these procedures:

1. Worry about the cleanup only after the employee (and any amputated limbs that can be reattached by surgeons) has been safely removed from the area and the equipment or machine has been shut down.

2. Put on PPE appropriate for the task. This may range from simple latex gloves for minor cleanups to a mask in combination with goggles, full paper coveralls, heavy duty rubber gloves, and shoe covers for cleaning up larger amounts of blood or OPIM.

3. For larger spills, the visible matter should be picked up with disposable absorbent material, such as kitty litter or towels.

4. Swab the area or equipment using disinfectant-soaked cloth or paper towels, in accordance with the disinfectant label or instructions for decontaminating blood- or OPIM-contaminated surfaces or equipment.

5. Allow the surface to dry.

6. Discard cleanup materials, cloth, and towels in the proper disposal container. Contaminated materials, considered “regulated waste,” by definition, cannot just be thrown in the regular trash. Many states have different rules about how to dispose of blood- or OPIM-contaminated wastes. Your state environmental agency can help you determine the rules for your state so you can dispose of the waste properly.

7. Remove protective gloves and other PPE and place them into a container in accordance with company PPE handling procedures. PPE may be disposed of in the biohazard bag or container. However, your company may have other procedures in place for non-contaminated or non-disposable PPE.

Waste disposal

Each state has different regulations concerning the disposal of wastes contaminated with blood and/or OPIM. In general, the employee may be required to:

- Gather contaminated materials, disposable tools, cleanup materials, and contaminated PPE and place them in closable, leakproof containers.

- Make sure the containers are labeled with the biohazard symbol or properly colored.

Some states require the waste to be sterilized prior to disposal, while others require special shipping manifests when the waste is transported to the landfill. The state environmental agency will be able to help you determine your disposal requirements.

Whether you can dispose of your contaminated waste in the regular trash, without special labeling or red bags, may depend on whether the waste is “regulated.” OSHA defines this term as liquid or semi-liquid blood or OPIMs; contaminated items that would release blood or OPIM in a liquid or semi-liquid state if compressed; items that are caked with dried blood or OPIM and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or OPIM.

Small finger bandages, facial tissues used to stop a nosebleed, and feminine hygiene products, in most cases, would not be considered regulated waste by OSHA’s definition, and they may be placed in an ordinary plastic or wax-lined waste container, from an OSHA perspective, unless your state environmental regulations say otherwise. That’s because the agency says that disposal must meet your state environmental laws and regulations. Therefore, you may wish to contact your state to find out what industries are covered by state medical or infectious waste requirements, if any, what is considered medical or infectious waste, and what the disposal requirements are for regulated medical or infectious waste.
Be aware that contaminated sharps are OSHA-regulated wastes that require storage and disposal in a labeled or colored, closable, leakproof, and puncture-resistant sharps container. You also want to routinely replace sharps containers so that overfilling does not occur. Contaminated sharps include not just needlesticks but also ordinary box cutter blades and broken glass, if they’re contaminated with blood or OPIM. If they are not contaminated, they may go in an ordinary waste container; however, because they can still penetrate the skin, it’s a good idea to wrap them before tossing them in the trash or accumulate them in a laundry detergent bottle, then cap the bottle and toss it in the trash.

**Protection of laundry personnel**

Use of a properly trained outside contractor to clean contaminated laundry is the best way to minimize worker risk. On the other hand, the manager must consider whether it is worth the time and effort to contract the cleaning of a few pair of coveralls each year. It may be more cost effective to simply dispose of contaminated clothing and coveralls as contaminated waste, if necessary, rather than bother with laundering.

If in-house laundry services are used, employees should be protected by:

- Making sure that the proper PPE is readily available at all times to personnel who handle laundry.
- Handling contaminated laundry as little as possible.
- Making sure that contaminated clothing is bagged or containerized separately from other laundry. The bags/containers must be color-coded or have the biohazard label properly attached.
- Making sure that the contaminated laundry is not sorted or pre-rinsed prior to being sent to the laundry. This simply puts employees at risk.
- Using leakproof bags/containers for wet laundry.
- Making sure that laundry personnel are fully trained in the bloodborne pathogen rules and procedures.
- Not allowing employees to take laundry home.

**Vaccination**

Vaccination may help to prevent the transmission of preventable diseases and keep your employees healthy. It’s worth noting that failure to vaccinate is the Bloodborne Pathogens Standard violation that has long carried the greatest average penalty. However, the only vaccine required is the Hepatitis B vaccine series, a series of three shots over a six month period. This vaccine is available at any physicians’ office or most public health departments. Of adults receiving the vaccine, sources say that 75 percent of healthy adults aged 40 or less will develop immunity after the second dose of the vaccine, with more than 90 percent developing immunity after the third dose. Statistics show that adults older than 40 will have a slightly lower protective antibody response rate after the three-dose vaccination regimen.

Employees with occupational exposure must be offered the vaccine to minimize their risks of contracting Hepatitis B. You may discover that few industrial workers will need to receive the vaccine because most will not have occupational exposure. However, even if you have only one employee with occupational exposure, you will need to ensure the vaccination is offered to that employee. The only exceptions for vaccination include employees who have previously received the complete hepatitis B vaccination series, antibody testing has revealed that the employee is immune, or the vaccine cannot be provided for medical reasons.

It’s important to also remember that if there are no exceptions, the vaccine must be offered within 10 days of an employee’s initial assignment with occupational exposure. And the standard specifies that the hepatitis B vaccine must be furnished at no cost to employees who may have occupational exposure. It must be provided at a reasonable time and place and performed by (or under) the supervision of a licensed physician or other licensed healthcare professional, like a nurse practitioner.

Employees who are not at risk — ones without occupational exposure — will often request vaccination as a precaution, but as just stated, only those with occupational exposure, by definition, are “required” to be offered the vaccine. Although employees who are not in this risk category are not discussed in the
standard, offering the vaccine to all employees requesting it may be a minimum price to pay for protecting the concerned employee.

**Employees who decline the vaccine**

An employee with occupational exposure may decline the vaccination. This is okay by OSHA if you have the employee sign the statement in Appendix A to §1910.1030. This statement says the employee knows the risk and was given a chance to be vaccinated, but declined it with the understanding that he or she can get a free vaccination at a later date if the employee still has occupational exposure. If the employee with occupational exposure later accepts the vaccine, you’ll need to make it available then.

**Vaccination requirements for first aiders**

An OSHA directive CPL 02-02-069, Enforcement Procedures for the Occupational Exposure to Bloodborne Pathogens, explains that citations should be issued when designated first aid providers, who have occupational exposure, are not offered the hepatitis B vaccine before they are exposed, unless the following conditions are in place:

- The primary job assignment of such a designated first aid provider is not the rendering of first aid or other medical assistance; and
- Any first aid rendered by such person is rendered only as a “collateral duty,” responding solely to injuries resulting from workplace incidents, generally at the location where the incident occurred; and
- The ECP specifically covers provisions for reporting first aid events to the employer, keeping a list of first aid events, training designated first aiders to report first aid events, and making the hepatitis B vaccination series available within 24 hours of a first aid event, regardless if an exposure incident occurred or not.

Unless all the requirements of this de minimis policy are met, §1910.1030 can be cited for failure to provide the hepatitis B vaccine. However, even if you meet the requirements of the de minimis policy, you may want to offer the vaccine anyway to these first aiders as a best practice, especially if they request it. The de minimis policy means you have still violated the regulation, but there would be no penalty.

**Antibody testing and booster shots**

OSHA does not require you to offer titers unless guidelines from the Centers for Disease Control and Prevention (CDC) call for them. Currently, CDC guidelines recommend post-vaccination screening for antibody to hepatitis B surface antigen for certain healthcare workers only. The agency explains that healthcare personnel who have contact with patients or blood and are at ongoing risk for percutaneous injuries should be tested one to two months after completion of the three-dose vaccination series. Healthcare personnel are defined as persons whose activities involve contact with patients or with blood or other body fluids from patients in a healthcare, laboratory, or public-safety setting. For healthcare workers with normal immune status who have demonstrated an anti-HBs response following vaccination, periodic anti-HBs testing is not recommended.

Similarly, OSHA does not require boosters unless CDC guidelines require them. The CDC explains that booster doses are not recommended for persons with normal immune status who were vaccinated as infants, children, adolescents, or adults. Even for healthcare workers with normal immune status who have demonstrated an anti-HBs response following vaccination, booster doses of vaccine are not recommended.

The CDC has said that vaccine-induced antibodies to HBV decline rapidly within the first year and more slowly thereafter. Among young adults who respond to a primary vaccine series with antibody concentrations considered nearly complete protection against acute disease and chronic infection, 17 to 50 percent have low or undetectable antibody concentrations 10 to 15 years after vaccination. However, the CDC explains that even when antibody concentrations decline below “complete protection” levels, nearly all vaccinated persons remain protected against HBV infection because of the body’s ability to preserve an “immune memory.”

**Exposure incidents**

While control measures are intended to eliminate or minimize the risks of occupational exposure, actual eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or OPIM that results from the performance of an employee’s duties can happen. This is called an exposure incident. Ensure that your employees wash contaminated hands and skin and flush their eyes, nose, and mouth
with water following contact. After any report of an exposure incident, make a confidential medical evaluation and follow-up available to your employee as soon as possible.

Evaluation and follow-up includes the following and other information:

- The routes of exposure and how the exposure occurred. You may wish to include answers to the investigation questions of “who, what, where, when, why, and how.”

- The identity of the source individual. However, if the employee does not know the source, he or she should at least give you all other information surrounding the incident so you may be able to piece together who the source was or establish that identification is infeasible.

- Test results of the source individual. If the source individual is tested, the results must be released to the exposed employee. You cannot obtain the results of source individual testing. A lot of personal stress can be avoided if source individual testing can be performed. Each state may have differing privacy laws that prevent mandatory testing of the source individual. You’ll need to get consent from the source individual to have his or her blood tested for HIV and HBV. If you cannot get consent, document that you could not obtain legally required consent. If consent is not required by law, and the source individual’s blood is already available, you may get that tested.

- Test results of the exposed employee. Again, consent is required before testing can be performed. And test results must be sent to the exposed employee. You cannot obtain these results.

- Counseling information for exposed employees is strongly advised to assist them in dealing with the psychological issues associated with blood or OPIM exposure.

- Healthcare professional’s written opinion. You’ll receive a copy of the healthcare professional’s written opinion, which simply tells you whether vaccination was recommended and provided and that the employee was instructed about diseases that result from contact with blood. Diagnoses will not and should not be sent to you. Don’t forget to give a copy of the written opinion to the exposed employee as soon as possible, but no later than 15 days of the evaluation.

Good Samaritans?
Employees who do not fall within the scope of this standard may still experience a specific exposure incident at work that is unrelated to the performance of their job duties. An example is “good Samaritan” assistance, voluntarily performed, to an injured co-worker or a member of the public. In such a case, OSHA strongly encourages, but does not require, employers of these employees to offer them the post-exposure evaluation and follow-up procedures set forth in the regulation.

Training
An employee with occupational exposure must be provided information and training at no cost to the employee, at the time of initial assignment, during working hours, and at least once a year after that. More training may be necessary when you modify existing tasks or add new tasks that change or add to an employee’s exposure.

Keep the information at a level that is appropriate for your employees. In other words, the content and vocabulary should match the trainee, as far as education level, literacy, and language.

Fourteen required training elements are listed in §1910.1030(g)(2). However, other things the industrial trainer might consider to increase employee awareness and ensure training is effective include the following:

- Provide employees with a copy of the regulation.

- Tell employees your written plan is available for review whenever they want to see it.

- Hand out pamphlets during training so the employees take them for later reference.

- Clarify the difference between “occupational exposure” and “exposure incident.” The two terms are defined in the regulation. Describe some scenarios to the trainees and ask them if they think the scenario is considered occupational exposure or an exposure incident.

- List which jobs or job duties at your company are covered by the standard (those job duties involving occupational exposure).
• Pass around the PPE that can be used in protecting against bloodborne pathogens.
• Demonstrate the exact methods for removing PPE without contaminating the hands or clothing. Have several employees put on all of the PPE as a classroom exercise.
• Each trainee should put on a pair of gloves and practice proper removal techniques. Always ask if anyone is allergic to latex or powdered gloves and be prepared with alternate gloves.
• Use videos targeted at industrial issues rather than healthcare videos.
• Discuss the risks at home as well as things that can happen in the workplace.
• Familiarize trainees with the biohazard symbol. Make sure they know that it will appear on a fluorescent orange or orange-red background. In addition to contaminated equipment and biohazard waste containers, trainees may see labels provided on refrigerators and freezers used to store blood or OPIM or on containers used to store or ship blood or OPIM.
• Bring a cleanup kit to your training session, and hold up the contents of the kit for trainees to see. If you don’t have a commercially available kit, you may wish to put together your own kit in a pail or duffel bag.
• List the types of waste items you expect to be disposed of in regulated waste containers, and display photos of or show trainees actual examples of containers used in your workplace.
• Show examples of the proper biohazard bags for waste disposal and tell the employees where the bags are located.
• Describe your company procedures for handling laundry and what laundry service you use, if any.
• Give information on the free hepatitis B vaccinations available to the workforce.
• Explain the need to report even minor incidents that may have contaminated a workstation. Use eye-catching signs throughout the workplace encouraging employees to report injuries and exposure incidents.
• Ask the employees about any equipment or work areas prone to cause injury. It helps if they can write the problem areas on the back of their quiz or submit the information on a separate paper at the end of the session.
• List the employees at your workplace who are trained, designated, and equipped to handle medical and first aid services. If these services are only provided by outside entities, let trainees know where they can find emergency telephone numbers.
• Schedule training sessions into separate 30-minute segments or provide breaks. It is very difficult for most employees to sit through training sessions that last longer than 30 minutes.
• Ensure that you leave time to answer questions trainees may have—OSHA requires an opportunity for interactive questions and answers with the person conducting the training session.
• Deliver a quiz. You might have participants take turns providing answers, and then go through any questions that participants may have missed. Have participants turn in their quizzes and sign a training log before leaving the classroom. Finally, distribute training certificates of completion.
• Thank trainees for attending, as well as for the contributions they make on the job. Offer them your contact information should they have questions after the session.
• Keep careful training records, including copies of short quizzes to document that employees understood the training.
• Use professionally created training certificates and wallet cards to reward trainees.
• At least one monthly safety meeting each year should discuss bloodborne pathogens.

Qualifications of trainer
When selecting a trainer(s), be sure the person knows the subject matter as it relates to your workplace. Many industrial sites have professional trainers on staff to handle the massive number of training programs required under environmental, safety, and health regulations. Use of in-house trainers has the advantage of using personnel who are already familiar with the issues of their industry. Other companies may find it more beneficial to use an outside trainer(s) to provide required training for individual regulations. Select a consultant with an industrial background who is familiar with the needs...
of your audience. Employees are often resistant to medical personnel who have not worked on the production floor. Emergency medical technicians, skilled trades persons, and fire brigade personnel are often well received as trainers. When sending employees out to or bringing in an outside trainer, just be sure the training covers all the required training elements, as well as any company-specific training you need to cover.

Also, if you use a video or distance learning, make sure the employees have immediate access to a “live” person to answer questions as they come up, even if that live person can only be reached by telephone or email. That’s because OSHA requires that employees have a chance for direct access to interactive questions and answers with the trainer.

Recordkeeping
In addition to the written ECP, several other records must be kept, including:

- Confidential medical records kept for the duration of employment plus 30 years (with the exception of employees who work less than one year);
- Training records kept for three years; and
- A sharps injury log kept for five years after the calendar year’s end, if your establishment falls under the injury and illness log requirements at 29 CFR 1904.

The required content of these records is listed in §1910.1030(h). More information may be maintained, however.

While you are supposed to keep medical records, you may contract for the services of an off-site healthcare professional, and OSHA allows that person or company to keep the records for you.

In addition to regular injury and illness recordkeeping under 29 CFR 1904, be sure to keep a “sharps injury log.” The sharps log must include the type and brand of device involved in the incident, the department or work area where the exposure incident occurred, and an explanation of how the incident occurred. More information may be included; however, the confidentiality of the injured employee must be maintained throughout the process.

You may elect to use the OSHA 300 and 301 forms to meet the sharps injury log requirements, provided two conditions are met:

- You must enter the type and brand of the device on either the 300 or 301 form; and
- You must maintain the records in a way that segregates sharps injuries from other types of work-related injuries and illnesses, or allows sharps injuries to be easily separated.

For example, if OSHA 300 and 301 records are maintained on a computer, you must ensure that the computer is able to produce a record of sharps injuries that does not include other types of work-related injuries and illnesses (i.e., through using a program that allows for sorting of entries by injury type). If records are kept on paper forms, you would need to use a separate page of the 300 Log for sharps injuries.

Review your sharps log annually during your written plan review. The log should aid in the evaluation of devices being used in the workplace and help you quickly identify problem areas. If the data is made available to supervisors, safety committees, employees, or other parties, any information that directly identifies an exposed employee or any information that could reasonably be used to identify the employee must be withheld.

Special issues and OSHA interpretations
No matter how much time federal and state regulators spend on the creation of a regulation, and no matter how many written comments they receive prior to its enactment, questions about the meaning of provisions of the regulation are bound to come up.

Companies with questions should review existing regulations and interpretations, and if the answers cannot be found, they should request a clarification from OSHA. The items below are taken from OSHA interpretations of some questions the agency has received. It is interesting to note that OSHA has issued over 300 interpretation letters on the Bloodborne Pathogens Standard since it was first published. Here are some snippets from some of them:
Applicability and scope

- Urine that does not contain visible blood is not covered under the standard. (April 15, 1996)

- If employees are trained and designated as responsible for rendering first aid or medical assistance as part of their job duties, they are covered by the protections of the standard. (Feb. 1, 1993)

- The mere fact that a person has received training on automated external defibrillator (AED) operation does not automatically evoke coverage under the bloodborne pathogens standard. It is the likelihood that a trained first aid provider could have “occupational exposure” that determines the standard’s applicability. If an employee is trained in first aid (including CPR and AED training) and is identified by the employer as responsible for rendering medical assistance as part of his or her job duties, there is an anticipated occupational exposure, and the Bloodborne Pathogens Standard applies. (April 23, 2007)

- It is correct that employees who perform “good Samaritan” acts are not, per se, covered by this standard, although OSHA would encourage an employer to offer follow-up procedures to an employee who experiences an exposure incident as the result of performing a “good Samaritan” act. (Aug. 2, 1994)

- True volunteers are not covered under the OSH Act. OSHA notes that they may, however, use records of compensation to establish whether or not someone is a volunteer. Since many “volunteer” ambulances and fire departments pay a fee for every run, trying to qualify as a “true volunteer” may be difficult. (Dec. 4, 1992)

- In a letter about employees who accidentally broke a sewer line while excavating an area, OSHA commented, “Although contact with raw sewage (not originating directly from a health care facility) poses a number of health hazards, OSHA does not consider these hazards to be related to bloodborne pathogens.” (July 24, 1992)

  Note from the author: The State of Michigan and several others do not agree with this OSHA interpretation and specifically list those exposed to sewage as being covered by the standard.

- Police and firefighters often serve as emergency medical personnel and thus are “healthcare workers who have blood or patient contact” within the meaning of the CDC guidelines. However, in order to qualify under the same guidelines, they must also have an “ongoing risk for injuries with sharp instruments or needlesticks.” Thus, the anti-HBs testing would not currently be required, unless in a particular situation, police and firefighters meet both defining CDC criteria. (Mar. 21, 2001)

- An employee who handles linens soiled with feces, nasal secretions, sputum, sweat, tears, urine, vomit, or saliva (other than saliva from dental procedures) would not be occupationally exposed during that task as these substances are not “other potentially infectious materials” as defined in the standard, unless they are contaminated with visible blood. (Aug. 7, 1992)

- The bloodborne pathogen standard does not apply to the construction industry. It does apply to employees performing maintenance activities which involve making or keeping a structure, fixture, or foundation in proper condition in a routine, scheduled, or anticipated fashion, and if they experience occupational exposure to blood or other potentially infectious materials. (May 13, 1994)

- Although the standard does not directly apply to the construction industry, OSHA can use the general duty clause to write a citation for bloodborne pathogen exposure. OSHA says, “The general duty clause, requires employers to furnish [a] workplace which is free from recognized hazards which may cause or are likely to cause death or serious physical harm.” (Mar. 23, 1993)

Written exposure control plan

- OSHA would allow a written plan to be in either paper or electronic format, as long as the program meets all other requirements of the standard in question. Where the standard requires that the written plan must be made available to employees, the employer must ensure that employees know how to access the document and that there are no barriers to employee access. (Sept. 16, 2008)
**Work practices**

- If a sink is not readily accessible (e.g., in the field) for instances where there has been occupational exposure, hands may be decontaminated with a hand cleanser or towelette, but must be washed with soap and running water as soon as feasible. If there has been no occupational exposure to blood or OPIM, antiseptic hand cleansers may be used as an appropriate “handwashing” practice. (Mar. 31, 2003)

**Housekeeping and waste disposal**

- OSHA doesn’t have evidence that plush carpets can be decontaminated. However, since few people come in direct contact with the floor, reasonable efforts to decontaminate the carpet may be adequate. (June 10, 1994)

- Contaminated laundry must not be sent home with the employee for laundering. (Jan. 26, 1993)

- 29 CFR 1910.1030 does not apply to the self-administration of insulin by employees or their disposal of insulin syringes used for self-administration except at places otherwise covered by the standard, such as healthcare facilities, industrial first aid units, and laboratories. OSHA recommends that employers require insulin-using employees to discard their used syringes in special containers rather than allowing them to be discarded in regular office trash. There are commercially available sharps containers and needle destruction devices manufactured and marketed for home use which would be appropriate in this scenario. (June 29, 2007)

- The employer would not be required to provide a sharps container to an employee using insulin syringes for personal therapeutic reasons. In order to eliminate potential exposures to other workers, the employer should strongly insist that the employees have their own sharps containers and bring that with them to the workplace. (Mar. 23, 2001)

- OSHA does not regulate the final disposal of medical waste. OSHA stated at 29 CFR 1910.1030(d)(4)(iii)(C): disposal of all regulated waste shall be in accordance with applicable regulations of the United States, States and Territories, and political subdivisions of States and Territories. There may be variation among different states with regard to acceptable measures of treatment of medical waste prior to final disposal. You may want to contact individual states for clarification on the requirements enforced within their jurisdiction. (Oct. 26, 2007)

- Bandages which are not saturated to the point of releasing blood or OPIM if compressed would not be considered as regulated waste. (May 28, 1992)

- A janitorial service asked OSHA about the risks of exposure from sanitary napkins in the trash. OSHA notes that if the employer “reasonably anticipates” exposure through leakage during handling, they could be cited for violation if workers are not trained. (June 3, 1992)

- OSHA does not generally consider discarded feminine hygiene products, used to absorb menstrual flow, to fall within the definition of regulated waste. OSHA expects the waste containers into which these products are discarded to be lined in such a way as to protect employees from physical contact with the contents. (May 28, 1992)

**Training**

- Annual training need not be performed on the exact anniversary date of the preceding training, but should be provided on a date reasonably close to the anniversary date taking into consideration the company’s and the employees’ convenience in scheduling. If the annual training cannot be completed by the anniversary date, the employer should maintain a record indicating why the training has been delayed and when the training will be provided. (Jan. 24, 2007)

- The Bloodborne Pathogens Standard does not specify a particular job classification for qualified trainers. 29 CFR 1910.1030(g)(2)(viii) does however require that the trainer be: knowledgeable in the subject matter covered by the elements contained in the training program. In OSHA’s bloodborne pathogens compliance directive (OSHA Instruction CPL 02-02-069), OSHA states, “Possible trainers include a variety of healthcare professionals such as infection control practitioners, nurse practitioners, registered nurses, occupational health professionals, physician’s assistants, and emergency medical technicians. Non-healthcare professionals, such as but not limited to, industrial hygienists, epidemiologists, or professional trainers, may conduct the training provided they are knowledgeable in the subject matter covered by the elements contained in the training program as it relates to the workplace. One
way, but not the only way, knowledge can be demonstrated is the fact that the person received specialized training. (Jan. 17, 2008)

- The standard does not specify that the trainer be “physically” in the classroom while training is being conducted. The training requirements established under 29 CFR 1910.1030(g)(2)(vii)(N) require an employer to allow for an opportunity for interactive questions and answers with the person conducting the training session. Employers use a variety of methods to meet the intent of the standard. As an example, training conducted by compressed digital video (CDV) where the trainer is in one location but is in direct communication with the trainees would provide for an interactive exchange and is an acceptable method for meeting the requirements of the standard. Additionally, OSHA has previously stated that an employer can meet OSHA’s requirement for trainees to have direct access to a qualified trainer by providing a telephone hotline. The trainer must be accessible to employees during the time of training. It is important to note, too, that employees must be trained initially prior to being placed in positions where occupational exposure to blood or other potentially infectious materials (OPIM) may occur. Employees must have direct access to a qualified trainer at the time the training is being conducted. (Jan. 17, 2008)

- Video presentations alone cannot be used to comply with the standard. A qualified person must be available to answer questions. (Aug. 28, 1996)

- The use of an electronic mail system to answer employee questions would not be considered direct access to a qualified trainer, unless the trainer is available to answer e-mailed questions at the time the questions arise. Frequently, a student may be unable to go further with the training or to understand related training content until a response is received. Failure to provide employees direct access to a qualified trainer would constitute a violation. (June 26, 2003)

- Interactive computer-based training can serve as a valuable training tool in the context of an overall training program. However, use of computer-based training by itself would not be sufficient to meet the intent of most of OSHA's training requirements. Training under the bloodborne pathogen standard includes site-specific elements and should also to some degree be tailored to workers’ assigned duties. In an effective training program, it is critical that trainees have an opportunity to ask questions where material is unfamiliar to them. In a computer-based program, this requirement may be met by providing a telephone hotline so that trainees will have direct access to a qualified trainer. Equally important is the use of hands-on training and exercises to provide trainees with an opportunity to become familiar with equipment, personal protective equipment, and safe practices (e.g. glove removal) in a non-hazardous setting. It is unlikely that sole reliance on a computer-based training program is likely to achieve these objectives. (June 11, 1997)

**Recordkeeping**

- The Bloodborne Pathogens Standard requires that employee medical records shall include the name and social security number of the employee. If a company chooses to keep a second set of records which are identified by employee numbers in place of social security numbers, it may do so. However, whenever a record is requested by an employee, a designated employee representative, or representatives of OSHA or NIOSH, the employer must assure access to the records containing the employee’s social security number within a reasonable time, place, and manner. (Feb. 5, 2007)

- Employers are required to maintain an accurate copy of each employee’s hepatitis B vaccination status, including the dates of all the hepatitis B vaccinations. The CDC considers a reliable vaccination history to be a written, dated record of each dose of a complete series. Employers must make every effort to obtain a reliable record of employees’ vaccination status. These efforts may include contacting the previous employer or facility where the vaccination was administered to obtain these records. As it is a requirement that all employers maintain these records for the duration of employment plus 30 years, a previous employer who administered hepatitis B vaccinations would have copies of those records. If a copy of the vaccination record cannot be obtained, then OSHA recommends that documentation verifying the employer’s attempt to obtain the record be maintained. When these records cannot be obtained from the previous employer, the current employer must obtain from the employee a written statement about vaccination status, including the dates or, where this is not possible, the approximate dates of the vaccinations. (Feb. 7, 2007)
Multi-employer situations

- OSHA considers personnel providers (contractors), which send their own employees to work at other facilities, to be employers whose employees may be exposed to hazards. Since the contractor maintains a continuing relationship with its employees, but another employer (client employer) creates and controls the hazards, there is a shared responsibility for assuring that employees are protected from workplace hazards. The client employer has the primary responsibility for such protection, but the contractor, likewise, has a responsibility. The contractor employer would be expected to provide generic training in universal precautions, to ensure that employees are provided with the required vaccinations, and that proper follow-up evaluation is provided following an exposure incident. Client employers would normally provide site-specific training and personal protective equipment and would have the primary responsibility to control situations involving potential exposure to hazards. The client, of course, may specify what qualifications are required for supplied personnel, including vaccinations.

Best practices summary - the bottom line

Industry is acutely aware of the amount of regulation to which they are subjected. However, here are a few “best practices” that may make compliance easier and more effective:

- Make sure that employees with occupational exposure are aware of the risks of bloodborne pathogens in the workplace. Posters and signs near time clocks or in break rooms can help maintain awareness.

- Employees exposed to high-risk environments where injury is common, such as in metal shaving operations, glass production, or other machining operations, should be trained in the risks of bloodborne pathogens.

- Designate and train specific employees to act as first aiders and blood/OPIM spill cleanup workers. Most companies have fire brigades and/or environmental response teams already. They will have most of the proper PPE already and are experienced in dealing with toxic chemicals. Expanding their job function to blood and OPIM cleanup will not significantly increase their workload.

- Review all job titles at your facility and classify them by whether the job: 1) has occupational exposure, and 2) has occupational exposure for only some employees in that position. Within each of the listed job classifications in number 2 above, list the tasks or procedures that involve occupational exposure.

- Train all employees that have occupational exposure. The exposure determination lists will help you determine who needs training. Most trainers can handle classes of up to 30 employees with little problem.

- Give employees pamphlets during training. They need to take something away from the training that can be used to answer questions and refresh their memory later on.

- Ensure that proper disinfectants, PPE, tools, and disposal materials are readily available. Cleanup kits located on bay posts are often used. Since most employees already know where the fire extinguishers and hydrants are located, these are also excellent locations for cleanup kits. Placing kits in lunchrooms, near water fountains, building exits, and time clocks is also common in some industries. Just make sure that everyone is thoroughly trained on the location of the kits.

- Larger cleanup kits can be easily made in-house by using a resealable or screw top five-gallon plastic bucket. The bucket can contain all of the proper cleanup equipment and PPE while providing a sealed plastic container for waste materials and contaminated PPE.

- Package laundry contaminated with blood or OPIM in biohazard bags and use an outside contractor trained to handle contaminated laundry. Always consider whether it is worth the trouble and cost for special laundry services when you could simply discard the coveralls as biohazard waste.

- Establish a new employee training program that introduces new employees to chemical hazard communication, bloodborne pathogens, environmental concerns, proper PPE use, machine safety, forklift operations, and/or any other occupational safety and health issues important to your industry.
- Make sure employees are trained not to put sharp materials in standard waste containers. Special containers should be provided for broken glass and sharp objects. This protects custodial staff that must empty these containers later on.

- Budget for annual retraining required by the regulation. Create new training packages, use different trainers, and buy new videos periodically to avoid boredom in the classroom.

- Issue training certificates and wallet cards that are professionally done. By displaying their training certificates and carrying their wallet cards, the employee is constantly reinforcing their training.

- Use trainers who have significant industrial experience. The optimal training situation would involve having a person perform the training who is knowledgeable in both the industrial area and in the medical field.

- Carefully review the written plan annually and make sure it is kept up-to-date when changes occur. A cover page that requires the signature and date of the reviewer will draw OSHA attention to the fact that this is a living and up-to-date document.

- Create a company policy that designates first aid personnel to assist injured employees and that discourages the general workforce from first aid activities.

- Review company safety policies and add language requiring employees to report activities/equipment that may produce injury, such as sharp edges or pinch points, to supervisory or EH&S personnel.

- Establish and maintain a sharps injury log for the recording of percutaneous injuries from contaminated sharps. Record and maintain that information to protect the confidentiality of the injured employee.

- Make sure that the proper PPE is readily available and easily accessible. Again, bay posts and fire extinguisher areas are ideal locations for cleanup kits and PPE.

- Remember that if you issue PPE for bloodborne pathogen hazards, you must also comply with the PPE regulations.

- Include very detailed procedures for cleaning up blood or OPIM from carpets, equipment, surfaces, floors, or other areas that may be contaminated.

- Offer the hepatitis B vaccination to employees who have occupational exposure. Make sure they sign the required declination statement if they refuse.

- Offer post-exposure evaluation and follow-up to those who experience an exposure incident. It is recommended that even those without occupational exposure who have an exposure incident (such as good Samaritans) be offered post-exposure evaluation and follow-up.

- Train those responsible for maintaining the OSHA 300 and 301 forms on how to enter bloodborne pathogen diseases and/or exposure incidents and maintain privacy cases.

Bloodborne pathogens are not a major hazard in industry, but the results of exposure can mean severe illness or the death of an employee. With basic precautions and management, employees can be assured that reasonably anticipated exposure to blood or OPIM while at work will not turn into a life-threatening disease.