



BEST MANAGEMENT PRACTICES

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Risk Management through Best Practices



Best Management Practices (BMPs)

Best Management Practices were developed for businesses and contractors by Environmental Risk Professionals to provide guidance on how to reduce injury and illness related incidents in the workplace. Many of these best practices are based on the Occupational Safety and Health Administration (OSHA) guidance.

Distributing Best Management Practices internally provides an opportunity for risk reduction, which may help reduce long-term costs through operational changes and reduction in health and safety risks to employees.

Environmental Risk Professionals understand that companies may implement successful measures to reduce and control injuries in the workplace. The Best Management Practices contained herein are meant to supplement those already in place or to assist in developing new safety protocols.

DISCLAIMER

The Best Management Practices contained herein were developed by Environmental Risk Professionals to provide general guidance for employee safety, and are based on what is generally acceptable industry practices. Environmental Risk Professionals does not guarantee the Best Management Practices can be relied on for compliance with any laws or regulations, assurance against preventable losses, or freedom from legal liability. We make no representations or warranties of any kind whatsoever, either express or implied, in connection with the use of these BMPs. For questions regarding compliance with applicable laws or regulations, please consult your local, state or federal regulatory authority.



Heavy Equipment

Construction projects often require heavy equipment, including backhoes, loaders, dozers, excavators, cranes, and lifts. A great deal of responsibility is attached to using heavy equipment; therefore, the operation of heavy equipment should always be done by highly skilled operators who have demonstrated the ability and necessary skills to operate safely.

In addition, ground-based workers should be trained to work safely around the equipment. Unsafe practices by the operator or those around the equipment can create dangerous situations. Serious injuries can occur if the equipment strikes a worker or if the equipment is rolled over. Every year, heavy equipment operators, ground-based workers, and pedestrians are killed by heavy mobile equipment used in construction.

Best Management Practices for Heavy Equipment

The following are best management practices (BMPs) for safely operating heavy equipment. To help reduce the risk of injuries when working around and using heavy equipment, consider the following pre-planning steps:

- Use trained and, where required, certified equipment operators and spotters.
- Provide heavy equipment hazard awareness and safe work practices training to workers.
- Provide a copy of/access to the operating manual for machinery to the operator.
- Develop a path site plan for vehicles, heavy trucks, and deliveries to help avoid or limit vehicles and equipment backing up.
- Set up a limited-access zone or swing radius around heavy equipment.
- Provide equipment with a rollover protective structure (ROPS).
- Maintain equipment to be in good operating condition.
- Before any equipment maintenance is performed, utilize lockout/tagout procedures.
- Provide a cab shield or canopy worker protection for top-loading vehicles.
- Increase visibility and lighting for night work.

During the operation of equipment, the following procedures should be followed:

- Always wear seatbelts.
- Check controls for proper operation (including backup alarms).
- Check the work area for obstacles, holes, overhead utility lines, etc.
- Have the utility service provider identify underground cables and supply lines before digging.
- When working on slopes, operate up and down the face of the slope instead of across the face.
- Never jump off or onto the equipment (use the 3-point contact rule).
- Never exit a running vehicle (turn the vehicle off if the operator must leave the cab).

After using heavy equipment, the following procedures should be followed:

- Park equipment on level ground.
- Ensure pressure relief from all hydraulic controls.

- Dismount after all motion from the equipment stops.
- Use the 3-Point Contact rule to dismount.
- Remove keys from all unattended heavy equipment vehicles.
- Chock wheels of equipment.

The following are equipment safety tips that can prevent an incident from happening:

General

- Always wear seatbelts.
- Always be on level ground when loading or unloading your equipment.
- When performing maintenance on machinery, use lock-out/tag-out procedures.
- Know the load limits of the equipment you are operating.
- Make sure loads are secure with the proper rigging attachments.
- Perform a pre-inspection of equipment each day before operating.
- Know your limits and never put yourself in a situation you do not feel comfortable in, regardless of your instructions.
- Wear high-visibility vests.

Blind spots

- Have a spotter stand in a safe, visible position to guide and direct the operator.
- Require all ground-based workers to make eye contact with the operator before entering the equipment's vicinity.
- If possible, cordon off the area of the equipment swing radius with barriers or caution tape.

Communication

- Always be in constant communication with the people working around you.
- Use a two-way radio for communication.
- Use predefined hand signals from a spotter who has been properly trained (when the radio is unavailable).
- Provide a signal before equipment starts to back up.
- Hold daily safety meetings and stress the importance of communication between ground-based workers and operators.

Mounting and Dismounting Equipment

- Always maintain three points of contact when getting on or off your equipment.
- If handholds or steps are damaged, replace them.
- Never jump onto or off equipment.

Overhead and Underground Hazards

- Before work starts on any job site, call 811 to be sure underground utilities such as water, sewer, gas, and electrical are located by the appropriate department and marked with color-coded paint and flags.
- Hand dig to uncover utilities.
- Always set up barriers and fencing when leaving open holes overnight.
- Always maintain a minimum distance of 10 feet from overhead power lines.

Remember, accidents can happen, but most are preventable incidents. Regular safety meetings, up-to-date procedures, and training will keep incidents down and workdays more efficient.

Training

Owners of businesses that utilize heavy equipment also bear the potential for liability if employees have yet to be trained and certified. For example, according to OSHA regulations, forklifts used in warehousing and distribution centers require certification. Ensure your workers are trained before operating any equipment and at least once annually.



Personal Protective Equipment

Workplace hazards include sharp edges, falling objects, flying sparks, chemicals, noise, and other potentially dangerous situations. The Occupational Safety and Health Administration (OSHA) requires that employers protect their employees from workplace hazards that can cause injury. Compliance responsibilities for employers are outlined in the OSHA standards and the Occupational Safety and Health Act of 1970. Personal Protective Equipment (PPE) includes any equipment worn by employees that provides a barrier between an employee and an identified hazard. Employers must implement a PPE program that determines appropriate PPE that will protect employees from hazards that cannot be eliminated with engineering or administrative controls.

The OSHA requirements for personal protective equipment (PPE) are published in the Code of Federal Regulations (CFR), and there are different codes for general industry, construction, and maritime industry. Refer to the following websites for specific

OSHA standards, Federal Register notices, directives, and letters of interpretation related to PPE:

- <https://www.osha.gov/personal-protective-equipment/standards>
- <https://www.osha.gov/personal-protective-equipment/construction>

American National Standards Institute (ANSI) and the International Safety Equipment Association (ISEA) collaborate on safety standards related to PPE. They have established a model for ensuring that equipment meets claims of a certain level of protectiveness. Employers can be assured that if they purchase PPE from manufacturers who certify to ANS/ISEA 125-2014, Level 3, they are obtaining PPE that has been validated to conform to stated standards.

Best Management Practices for Personal Protective Equipment

Controlling a hazard at its source is the best way to protect employees. Depending on the hazard or workplace conditions, OSHA recommends using engineering or work practice controls to manage or eliminate hazards to the greatest extent possible. The following are best management practices (BMPs) for PPE:

General Responsibilities of Employers

- Perform a workplace hazard assessment to identify and control physical and health hazards.
- Identify and provide appropriate PPE for employees.
- Train employees in the use and care of PPE.
- Maintain PPE and replace worn or damaged PPE.
- Periodically review, update, and evaluate the effectiveness of your PPE program.

General Responsibilities of Employees

- Properly wear PPE.
- Attend training sessions on PPE.
- Care for, clean, and maintain PPE.
- Inform a supervisor of the need to repair or replace PPE.

Various Types of Personal Protection Equipment

- Head protection (Hard Hats).
- Eye and face protection.
 - Safety glasses
 - Goggles
 - Face shields
 - Welding/Burning protective equipment
 - Lasers and UV light protection
- Hand protection.
 - Cotton work gloves
 - Leather work gloves
 - Cut-resistant gloves
 - Puncture-resistant gloves
 - Insulating gloves
 - Aluminized gloves
 - Chemical and liquid protective gloves
- Foot protection.
 - Safety shoes
 - Safety boots
 - Leggings
- Hearing protection.
 - Disposable earplugs
 - Reusable earplugs
 - Canal caps
 - Custom molded earplugs
 - Earmuffs
- Respiratory protection.
 - Filters
 - Canister/cartridges
 - Filtering facepiece
 - Air-purifying respirator
 - Powered air-purifying respirator
 - Continuous flow atmosphere-supplying respirator
 - Supplied air respirator

- Self-contained breathing apparatus
- Body protection.
 - Chemical protective clothing
 - High visibility/reflective apparel
 - Flame-resistant clothing
 - Cut-resistant clothing
 - Surgical gowns
 - Insulating sleeves
 - Insulating blankets and mats
 - Personal floatation devices
 - Fall protection
 - Seat belts

Training

Employers are required to train each employee who must use PPE. Employees must be trained to know the following at a minimum:

- Why PPE is necessary, with a description of the identified hazards
- What PPE is necessary, and how will it protect them
- When PPE is necessary
- How to properly put on, take off, adjust, and wear the PPE
- The limitations of the PPE
- Proper care, maintenance, useful life, and disposal of PPE
- How to identify signs of wear

Employees must demonstrate an understanding of the training provided and how they can use the PPE properly before performing any work requiring PPE. If the employer believes that an employee who has already been trained does not understand or has not demonstrated the skills required for PPE use, then the employer must retrain the employee.



Heat Exhaustion

Heat exhaustion is caused by increased core body temperature, often coupled with fluid loss (dehydration). The body cools itself most efficiently by sweating and having that sweat evaporate. Should sweating be unable to meet the cooling demands of the body, heat-related illness can occur. When a body's internal temperature rises, its normal response is to sweat and be cooled by evaporation. However, if the humidity is high, sweat won't evaporate as easily, or someone is already dehydrated, they may not be able to cool their internal temperature fast enough, and their core temperature will rise. Causes of heat exhaustion include exposure to high temperatures, particularly when combined with high humidity, direct sun exposure, and strenuous physical activity.

Additional factors known to increase the likelihood of heat exhaustion include:

- High humidity, usually over 60 percent
- Intense, strenuous physical work
- New to work in the heat
- Working in direct sunlight
- Low liquid intake
- Wearing waterproof or protective clothing, especially semipermeable or impermeable types
- Respirator use
- Hot work
- Carrying additional weight from tools and protective equipment
- Underlying conditions that increase the chances of dehydration, including diabetes or hyperglycemia
- Liver or kidney conditions
- Drug abuse
- Heavy or long-term alcohol use
- Smoking or tobacco use
- Being overweight
- Certain medications, especially those that increase the risk of dehydration, including medications for depression, insomnia, allergies, and poor circulation
- High blood pressure
- Heart disease
- Being under 4 or over 65 years old

Without prompt treatment, heat exhaustion can lead to heat stroke, a life-threatening condition. Possible heat exhaustion signs and symptoms include:

- Cold, pale, damp skin, sometimes accompanied by goosebumps
- Heavy sweating
- Dark-colored urine
- Faintness
- Dizziness
- Rapid, shallow breathing
- Fatigue
- Weak, rapid pulse
- Low blood pressure or lightheadedness upon standing

- Muscle cramps
- Nausea or vomiting
- Headache
- Increased internal body temperature

Best Management Practices for Preventing Heat Exhaustion

There are many precautions that your construction company can take to prevent heat exhaustion and other heat-related illnesses in your employees, including implementing the following Best Management Practices (BMPs):

- Establish a heat illness prevention program.
- Develop and implement an emergency medical plan and practices.
- For inside work areas, increase air velocity, use reflective or heat-absorbing shielding or barriers, and reduce humidity.
- For outside work areas, provide shade, if possible.
- Provide cool water (below 60 degrees Fahrenheit) to workers. At least 32 ounces of water per hour is recommended.
- During prolonged periods (several hours) of sweating, drinks containing balanced electrolytes should be provided.
- Provide shaded or air-conditioned break areas for workers.
- Allow multiple rest periods with water breaks. General guidelines vary, but some states require 10 minutes every two hours of work.
- Consider providing sun-protective and body-cooling products to workers.
- Encourage employees to wear loose-fitting, lightweight clothing, as allowed for protection from other site hazards.
- Supply safety glasses with sun protection.
- Provide broad-spectrum sunscreen with an SPF of at least 15 and encourage employees to reapply sunscreen every two hours.
- Try to schedule strenuous physical labor for cooler parts of the day, such as early morning or evening.
- Use tools or equipment to minimize employee exertion.
- Encourage employees to limit caffeinated drinks, which increases dehydration.

- Ask employees to alert management if they are taking medications or have underlying medical conditions that may make them more susceptible to heat exhaustion. Allow these personnel more frequent breaks.
- For those who have been away from work or are new, allow frequent breaks and acclimatization to the workload. Start with 20 percent of the workload and increase by no more than 20 percent each day.
- Ensure effective communication between employees and supervisors so that an employee can report concerns.
- Pair employees so that they can observe each other for signs of heat exhaustion.
- Urine that is too yellow can indicate dehydration. Consider posting urine color charts near bathrooms to remind employees to check their urine color.

Best Management Practices for Treating Heat Exhaustion

The following are BMPs for treating heat exhaustion. If an employee does not feel better within one hour of using these treatment measures, seek prompt medical attention.

- Immediately stop doing work or physical activity.
- Call a supervisor or a fellow employee for help.
- Move employees to a cool, shaded area or rest indoors in an air-conditioned building.
- Fan or mist worker with water or provide cool towels.
- Supply cool fluids for the worker, either water or sports drinks.
- Employees should rest on their back with their legs elevated higher than their heart level.
- Employees should remove unnecessary clothing.
- For severe cases, put ice packs under each armpit and behind the neck of the worker.

Train employees on risk factors, preventative measures, signs and symptoms, the importance of reporting symptoms to supervisors, procedures for treating heat-related illness, and emergency response procedures.

Signs of Heat Stroke

The following are signs to look for when you suspect someone is suffering from heat stroke:

- An extremely high body temperature (above 103 degrees)
- Red, hot, and dry skin with no sweating or profuse sweating
- Rapid, strong pulse
- Rapid breathing
- Throbbing headache
- Dizziness
- Nausea or vomiting
- Confusion, agitation, or slurred speech
- Seizures or convulsions
- Passing out/unconsciousness

CALL 911 immediately, move the person to a cooler place, and cool by whatever means available, using cool water or ice packs, as soon as possible.



Forklift Operation

Forklifts are a common tool used to move products from one location to another. These products are often stored on shelves, stacked on pallets, and contain hazardous materials. Improper operation of forklifts can lead to accidents involving releasing hazardous materials, injuries, and death. The following are some statistics on forklifts provided by the Occupational Safety and Health Administration (OSHA):

- Forklifts account for approximately 85 fatal accidents per year.
- Approximately 34,900 accidents result in serious injury.
- Approximately 61,800 are classified as non-serious.

As shown above, forklifts can be a serious hazard in the workplace which is due to several reasons, as noted below:

- Forklifts weigh up to 9,000 pounds, three times heavier than many cars.
- Forklifts only have brakes in the front, making them more difficult to stop.
- Forklifts can reach a top speed of up to 18 mph.
- To compensate for the heavy loads that are being carried at the front, forklifts are heavier in the rear, which can make it difficult to handle
- Loads carried by the forklift can obstruct the driver's view.
- The rear wheels on a forklift are used for turning. This causes the rear end to swing outward and increases the chance of tipping over during tight turns.
- Forklifts are often used to raise heavy loads to considerable heights.

Best Management Practices for Forklift Operation

Before operating a forklift, employees are required to be trained and certified. In addition to receiving the required training, consider the following best management practices when operating forklifts:

- Never use untrained/uncertified operators for forklifts.
- Operators must be trained and recertified on new types of forklifts.
- Perform daily inspections on forklifts before operating and weekly cleaning of dirt and debris.
- Check hydraulic hoses for cracks, splits, or weeps, and replace any damaged hoses to avoid surprises.
- Check tires for Wear and switch them out frequently to rotate them and keep wear even.
- Report all issues immediately to your supervisor, even if only minor.
- Only operate a forklift when seated and properly fastened into the seat.
- Keep your hands and feet inside the forklift while driving.
- Do not lift people or allow passengers on forklifts.
- Always check your surroundings before attempting to move or operate a forklift.
- Evaluate the overhead obstructions before extending the mast.
- While operating the forklift, raise the forks so they are not dragging on the ground; this will help reduce wear and tear and save fuel.
- Always use the right capacity-size forklift for your lifting load.
- Know your fully extended mast height with the forks at their highest point and the clearance your truck requires.

- Place the heaviest load against the back of the forks and ensure loads are neatly stacked, stable, evenly distributed, and secure.
- When picking up loads, place forks under loads as far back as possible and adjust forks to the widest possible distance.
- Position forks to tilt slightly back.
- Be cautious when high tiering. Carefully tilt the mast forward to deposit the load. Do not exceed the stated capacity at the highest stack heights.
- Evaluate the fork height required to load and clear the top pallet from a double stack within the confines of a truck or semi-trailer.
- Know the maximum height your forks can reach with the mast extended. Know whether your forklift can adequately do the job assigned.
- Evaluate whether your forklift can lift the load to the highest stack with adequate fork clearance.
- Never travel with the load elevated.
- If your view is blocked, travel in reverse.
- Do not allow anyone to pass under or stand under forks when raised.
- When driving on an incline, always drive with the forklift's heavier or less stable end pointing up the incline.
- Ensure loading dock plates are fastened securely and can support the weight of the forklift and load.
- Keep the forklift away from loading dock edges. Erect protective guard rails or barriers or apply a warning stripe of yellow floor paint near dock openings.
- Never exceed safe operating speeds for your facility.
- Decrease speed at all corners and sound horn.
- Do not operate forklifts in closed or insufficiently ventilated environments where carbon monoxide or diesel exhaust buildup could occur.
- When parking forklifts, set forks flat on the floor, place controls in neutral, shut off the engine, and set brakes.
- Conducted scheduled maintenance on all forklifts to save time, money, fuel, and the cost of expensive parts.
- Charge batteries routinely to extend their life and prevent a surprise failure while in use.
- Always use the proper lockout/tagout labels to identify a broken or unsafe forklift.
- Be sure facility visitors are briefed on safety guidelines involving forklifts.

Training

Forklift operators are required to be trained in accordance with employer and OSHA standards. OSHA 29 CFR 1910.178(I) requires that employers provide forklift operators training for vehicle inspection and maintenance. Operators must be over 18 years of age. Operators must be re-trained if they are found to be operating unsafely or if there are changes in the workplace or type of forklift. Evaluation of each operator's performance must be performed every three years.



Hot Work Safety

Hot work is any activity that involves open flames or produces heat or sparks capable of initiating fires or explosions. The Occupational Safety and Health Administration (OSHA) defines hot work as burning, welding, using fire or spark-producing tools, or producing an ignition source. Hot work is prevalent in numerous industries, including oil production, fuel storage, waste treatment, food processing, and pulp and paper manufacturing.

Many substances commonly found in welding fumes, such as fluorine compounds, zinc, lead, beryllium, cadmium, mercury, and other heavy metals, can be extremely toxic. Welding smoke can affect the welder's lungs, heart, kidneys, and central nervous system, and long-term exposure to welding smoke can cause cancer, chronic

respiratory problems, kidney damage, decreased lung capacity, heart and skin disease, digestive issues, hearing loss, reproductive harm, and other diseases.

The Bureau of Labor Statistics notes that over 500,000 employees are injured yearly in welding accidents. Hot work can be dangerous and deadly, but with proper training and protective measures, the likelihood of welding-related injuries and illnesses can be significantly reduced.

Best Management Practices for Hot Work Safety

Before performing any hot work activities, follow all federal, state, and local regulations and train your employees as required. The following are some best management practices for conducting hot work activities:

- Consider alternative methods when possible.
- If possible, schedule hot work during shutdown periods.
- Comply with the required legislation and standards applicable to your workplace.
- Perform a hazard assessment before beginning work.
- Monitor gas in the work area before and during operations.
- Calibrate combustible gas detectors regularly. If used on an occasional basis, calibrate before each use.
- If outside contractors are used to perform the hot work, ensure they are supervised and informed about all site-specific hazards.
- Check all equipment and make sure it is in good operating order before work starts.
- Equip employees with the proper personal protective equipment (PPE).
- Ensure all employees are trained on properly using, cleaning, and storing PPE.
- Survey the worksite and look for potential sources of flammable or explosive substances.
- Ensure that a qualified person authorizes all hot work and issue permits that specifically identify the work to be performed and precautions to be taken.
- Before beginning hot work, secure, isolate, and vent pressurized vessels, piping, and equipment in the vicinity, as needed.
- Where flammable liquids and gases are stored or handled, drain or purge all equipment and piping before hot work is performed.
- Provide workplaces that are free of recognized hazards.

- Test preservative coatings for flammability and strip coating as needed to prevent ignition.
- If toxic coatings are present on a surface to be heated, precautions, such as stripping the coating for a prescribed distance from the area of heat application and appropriate use of respiratory protection, should be implemented.
- Sweep floors to remove debris and combustible materials around the work zone.
- Remove any spilled grease, oil, or other combustible liquid.
- Use water or cover combustible floors with fire-resistant blankets or damp sand. Do not use water if electrical circuits have not been de-energized to prevent electrical shock.
- Store all other flammable and combustible materials in flammable lockers and away from the work area.
- Cover combustibles with fire-resistant blankets or shields if they cannot be relocated.
- Shields or curtains must be installed to protect passing persons from flying sparks near welding equipment.
- Protect gas lines and equipment from falling sparks, hot materials, and objects.
- Move spark potential equipment such as air compressors outside hazardous areas and use long hoses.
- Cover all ventilation and other duct openings with a fire-resistant barrier to prevent sparks from entering. Inspect the ducts after work has concluded.
- Cover wall or ceiling surfaces with a fire-resistant and heat-insulating material.
- Suspend fire-resistive tarpaulins beneath hot work areas.
- Any welding and cutting operations should be adequately ventilated to prevent the accumulation of toxic materials or oxygen deficiency. Appropriate respirators should be provided if an area cannot be adequately ventilated.
- Post a trained fire watcher within the work area.
- Train fire watch workers about job hazards, including how to fight fires at their beginning stage.
- Provide appropriate fire extinguishers (e.g., ABC) and ensure employees are trained to operate them.
- Provide first aid kits and maintain adequate supplies. Make sure they are easily accessible in case of an emergency.

- Stay alert and be responsible to actively prevent and fight any beginning-stage fires.
- Do not perform other duties with fire watch activities while hot work is in progress.
- Fire watch must ensure they can communicate with workers around hot work areas.
- Immediately shut down any hot work activity deemed unsafe and take the appropriate corrective measures to restore and maintain safe conditions.
- Conduct an inspection at the conclusion of the hot work to ensure no areas remain hot and could cause a fire.

Training

Train your employees to conduct hot work in accordance with all federal, state, and local regulations. Do not attempt hot work without the required training.



Drowsy Driving

The National Sleep Foundation (NSF) reports that approximately \$12.5 billion in monetary losses occur yearly from crashes caused by driver fatigue. Fatigue and drowsiness while driving can impair reaction time, make drivers less attentive, and affect a driver's ability to make quick and effective decisions. The National Safety Council (NSC) indicates that driving after being up for 20 hours without sleep is equivalent to driving with a blood-alcohol level at the U.S. legal limit. Fatigue and drowsiness can occur because of lack of sleep, untreated sleep disorders, interrupted or fragmented sleep, medications, and shift work. Insufficient sleep combined with ill effects of drugs or alcohol can compound the issue.

According to the NSF, crashes from drowsy driving occur most frequently during the night and mid-afternoon, when sleepiness is most pronounced. Commercial drivers, especially long-haul drivers, are at higher risk for drowsy driving because they drive longer distances, often drive at night to avoid traffic, drive alone, and may be driving on long, rural, dark, or monotonous roads. NSF data indicates that 15 percent of heavy truck crashes involve fatigue.

There are no ways to test for fatigue, and it is difficult to know when one may fall asleep; however, some signs of fatigue include the following:

- Yawning
- Blinking frequently, heavy eyelids, or needing to rub your eyes
- Difficulty keeping eyes open
- Having trouble keeping your head up
- Daydreaming or not being able to remember roads just traveled
- Lane drift or hitting rumble strips
- Missing road signs or turns
- Difficulty maintaining a constant speed
- Needing to open the window or turn up the radio to stay focused

Best Management Practices for Preventing Accidents While Drowsy

To mitigate the risk posed by fleet drivers driving while tired, the following best management practices are suggested:

- Encourage drivers to maintain a regular sleep schedule and get the recommended number of hours of sleep, 7-9 hours per night.
- If an employee is having trouble sleeping at night, frequently snoring loudly, or suffering daytime sleepiness, drivers should be asked to consult a physician and refrain from driving until sleep issues are diagnosed and resolved.
- Drivers should check their prescriptions and over-the-counter medication labels for side effects, including drowsiness, and refrain from driving while taking the medication.
- Drivers should schedule regular stops every 100 miles or two hours.
- If fatigued, drivers should stop driving and consider taking a 15 to 20-minute nap.
- If possible, drivers should avoid driving during peak times for drowsiness, 12 AM to 6 AM and late afternoon.
- Consuming caffeine in various forms can increase alertness and combat fatigue. However, caffeine should only be used to combat fatigue occasionally. When consumed in high amounts over long periods, caffeine can lead to sleeplessness and increased drowsiness while driving (according to an article published in Safety Science in June 2020).

All drivers should be trained initially and regularly to recognize the signs of fatigue and follow the above best management practices.



Accident Reporting

Accidents can result in significant claims to those companies with fleets. One way to control the cost of claims is to obtain accurate and detailed information about accidents promptly that can be used by the insurance company to handle claims effectively. Additionally, the information obtained from accident reports can be used by fleet managers to investigate accidents and identify root causes to develop strategies to prevent future occurrences. Therefore, developing an effective accident reporting policy is an important tool to reduce the frequency of accidents and lower the cost of claims.

Best Management Practices for Developing an Accident Reporting Policy

- Recommend that the driver move to a safe location out of harm's way, if possible.
- Call for medical assistance if anyone is injured.
- Follow company spill response and reporting procedures.
- Protect the area with emergency warning devices placed around the accident scene.
- For all accidents, no matter how severe, call the police or ask someone not involved to call the police.
- Instruct employees to immediately notify appropriate management personnel at the company. Each vehicle should have an emergency contact list in the event of an accident.
- The company should have a checklist available to management to record pertinent facts about the accident. If the accident involves injuries, a fatality, or extensive property damage, management should have a representative drive to the scene.
- The company should develop a detailed accident report form, which should be placed in each vehicle.
- Employees should be instructed to fill out the company accident report form.
- Employees should cooperate fully with authorities.
- Employees should not make any voluntary statement or discuss fault other than replying to questions from investigating authorities.
- Ask employees to record the names and addresses of drivers, witnesses, and occupants of all vehicles involved in the accident.
- Photographs should be taken at the accident scene to record accident conditions and damage.

Companies should perform their accident investigations for each accident to determine the cause and any contributing factors. Accident investigations should be initiated immediately after the accident to obtain information about the accident while memories are fresh. Accident facts should be obtained through the driver's accident report, company investigation reports, police reports, insurance company investigations, witness statements, photos, and diagrams. Data on accidents should

be kept so the company can identify trends or causal factors that can be addressed or changed to prevent future accidents.

Employees should be trained on what to do in an accident as part of their initial training and annually. The training should include directions on what photographic documentation is critical to assessing property damage and liability. Employees should be instructed not to share or post photos or information about an accident on social media. Use past accident data and lessons learned to direct driver training.



Slips, Trips, and Falls

The Bureau of Labor Statistics estimates that over 200,000 serious injuries and 800 fatalities occur every year among workers from injuries associated with falls. Construction workers are most at risk for fatal falls from height; however, all are at risk for falls. Common causes of slips and trips include inattentiveness; wet or worn surfaces; obstructions on walking surfaces, raises or drops in the walking surface elevation; old, worn, or inappropriate footwear; and poorly lit areas. Other falls occur due to unprotected openings, unsafe guardrails or handrail systems, inappropriate use of or deteriorated ladders, and inadequate fall prevention and protection systems. Employers are responsible for taking workplace measures to prevent falls from the same work surface level, such as slips, trips, and heights. Occupational Safety and Health Administration (OSHA) regulations cover all horizontal and vertical working surfaces. Effective fall prevention or fall protection measures can avoid injuries.

The Bureau of Labor Statistics offers the following regarding situations that resulted in falls:

- 28 percent of the injuries occurred while climbing up or down
- 17 percent occurred during the loading or unloading of materials
- 13 percent occurred during operation, repairing, cleaning, or installing equipment
- 11 percent of falls occurred while stepping from one surface to another
- 10 percent occurred while moving backwards
- 13 percent occurred while just walking

The first step in preventing slips, trips, and falls at your workplace includes performing a thorough hazardous assessment to identify fall hazards. Once the assessment is complete, appropriate control measures should be evaluated, and control measures should be implemented. OSHA requires that fall protection be provided at elevations of four feet above adjacent work areas in general industry, five feet in shipyards, six feet in construction, and eight feet in long shoring operations. Regardless of height, fall protection is required for all work areas over dangerous equipment or machinery. Refer to OSHA standards for specific requirements.

Employers should consider implementing a fall protection plan where workers work at height. It should include:

- Fall hazards identified in the work area
- Methods of fall prevention, arrest, or restraint to be provided for different job tasks
- Personal protective equipment to be used
- Procedures for assembly, maintenance, inspection, and disassembly of fall protection systems
- Procedures for handling, storage, and securing of tools and materials to keep work areas and walkways clear of obstacles
- Overhead protection to be used for workers working or passing below other active work areas
- Method for rescuing workers who have fallen or injured workers
- Employee training program for fall prevention and protection

Best Management Practices for Slips

- Maintain good housekeeping.
- Keep work areas and walkways clean, orderly and sanitary.
- Floors should be free of protruding nails, splinters, holes, or loose boards.
- Manage cords so they don't cross working surfaces or walkways. Tape down cords if they are in the way of a walking surface.
- Keep working surfaces dry.

- Where wet processes are used, consider using grating, mats, or raised platforms to maintain drainage.
- Clean all spills or wet areas immediately.
- Rope off and label areas that may be susceptible to slip hazards.
- Mop or sweep debris from floors.
- Personnel should wear footwear that is appropriate for the conditions faced in the workplace; soles should provide good traction.
- Secure mats, rugs, and carpets so they lay flat and don't slip.
- Keep working areas and walkways well-lit.
- Ice or snow should be promptly cleared, and anti-slip materials like salt and sand are applied to the frozen ground to increase traction.

Best Management Practices for Falls

- Personnel should be protected from falls if they are working at height.
- Fall prevention methods, such as guardrails and covering openings, should be used if possible, and if these can't be used, use fall restraints or arrest equipment.
- Personnel should inspect their fall protection equipment before each use.
- Personnel should survey their work area before work to know potential hazards.
- Guardrails, covers, and other fall prevention barriers should be constructed according to OSHA guidelines.
- Workers should stay away from unprotected edges when possible.
- Workers should know how to access their work areas safely.
- Keep tools away from edges.
- Protection from falling objects should be implemented, including toeboards, canopies, or other measures to prevent tools from falling on workers below.
- Ensure each employee's fall arrest systems are certified to ensure that they will function as intended for their weight and the height at which they will be working.
- When considering fall arrest systems, consider free fall distances, elongation and deceleration distances, location of anchorage points, environment, electrical hazards, obstructions in the potential fall pathway, and potential swinging.
- Ensure all fall arrest and safety net systems meet OSHA guidelines.
- Ropes, belts, lanyards, lifelines, and harnesses used for personal fall protection must be protected from cuts, abrasions, melting, and other damages.
- Horizontal lifelines should be designed, installed, and used under a qualified person's supervision; if vertical lifelines are used, each employee should have a separate lifeline.
- Lifelines should always be connected using a self-locking connector.
- Anchorages for fall protection should be independent of anchorage used for other purposes.
- Make sure areas within potential worker fall zones are kept clear of objects that can present puncture dangers.
- Fall arrest systems should be removed from service after a fall for inspection.

- Controlled access zones (for particular tasks where fall protection/prevention may not be able to be used) should be defined by clearly marked control lines or other means to restrict access to only those workers authorized to enter these areas.
- When no other alternative fall protection has been implemented, a competent person should be assigned to monitor the safety of workers.
- All fall protection equipment should be inspected annually by a qualified third party.

All employees who might be exposed to fall hazards must be trained to recognize such hazards and minimize them. Employees using fall protection equipment must be trained on the function and performance characteristics of the equipment, use of the equipment, inspection, and storage of the equipment, and proper attachment locations and methods.



Road Construction Safety

Road construction workers perform various tasks related to building, repairing, and maintaining roads, highways, and other transportation infrastructure. Understanding workers' hazards while working in and around traffic is essential to providing a safe work zone. While construction is instrumental in shaping our roads, streets, and highways, it comes with significant hazards that demand resilience, skill, and unwavering commitment to safety. Heavy equipment, live traffic, working at heights, hazardous materials, weather, and noise are some of the hazards road construction workers face. Distracted motorists, lead-footed drivers, low visibility, and inclement weather pose hazards for roadside construction workers. Strictly adhering to safety best practices for roadside work zones is critical to reducing the number of work zone accidents and fatalities and allowing crews to return home safely at the end of each shift.

Best Management Practices for Road Construction Safety

Best practices for road construction workers are essential to ensure a safe and efficient working environment. These practices help prevent accidents, protect workers, and contribute to the overall success of construction projects. The following best management practices are provided for road construction workers:

- Complete an assessment of the work zone to identify any potential hazards or risks that may occur.
- Develop a traffic management plan to include appropriate signage, traffic control devices, and communication strategies.
- Install visible signage a reasonable distance before the work zone to inform motorists of upcoming work zones. Use pavement markings or reflective materials to identify hazards.
- Traffic control measures: To ensure traffic is controlled and regulated,
 - Install barricades and cones as traffic control measures to guide motorists through the work zone safely and effectively.
 - Properly train workers on work zone safety.
 - Workers should be equipped with appropriate personal protective equipment (PPE), including high-visibility clothing.
 - Install signage for speed control before motorists reach work zones. Other ways to deter motorists from speeding are installing speed bumps and speed monitoring devices as motorists approach these zones.
 - Equip your work zone with adequate lighting during dawn, dusk, or night.
- A competent person should be on the jobsite whenever work is being performed. The Occupational Safety and Health Administration (OSHA) defines a competent person as someone “capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has the authorization to take prompt corrective measures to eliminate them.”
- Implement an inspection schedule and complete routine inspections to ensure

work zones remain safe and effective. Have a plan to address any issues with barriers, signage, or markings. A competent person is needed to conduct hazard assessments and regular worksite inspections.

- Implement daily safety meetings before initiating any work. Brief workers on the tasks to be completed and discuss any potential known hazards and how to mitigate them. Ensure all workers wear appropriate PPE for the work that day.
- Ensure there is sufficient water and fluids with electrolytes to keep workers hydrated.
- Provide training on proper lifting techniques to prevent musculoskeletal injuries. Use mechanical aids and equipment when handling heavy materials.
- Use radios, signals, and hand gestures to communicate effectively, especially in noisy environments.
- Encourage regular breaks to prevent fatigue and maintain focus. Rotate tasks to prevent repetitive strain injuries.
- Train workers on the safe use of tools and equipment. Keep tools well-maintained and replace damaged equipment promptly.
- Conduct regular safety audits to identify and address potential hazards. Encourage feedback from workers on safety concerns and improvement ideas.



Spill Reporting

Spills, whether they involve hazardous materials, chemicals, oils, or other substances, can pose significant risks to human health and the environment if not promptly addressed and properly managed. Immediate action to contain a spill of hazardous materials or petroleum products is critical for minimizing the environmental impact and controlling cleanup costs. An effective spill response plan minimizes these impacts by ensuring a prompt, efficient, and coordinated response.

Employees should never attempt spill response without proper training and only if it is safe. Employees trained in spill response may be able to provide an initial response to stop and contain the spill; however, depending on the spill's size, the response may require a trained emergency response contractor to contain and clean up the spill. Larger spills should always be handled by professionals trained in emergency response. Regardless of the spill's size, there are requirements from both the Environmental Protection Agency (EPA) and individual states to report spills of hazardous materials and petroleum products.

Best Management Practices for Spill Reporting

If you discover a spill or release of hazardous materials or petroleum products, you may be required to notify Federal and State Agencies.

Federal Reporting Requirements

To report the release of a hazardous substance or oil, call 800-424-8802 and notify the National Response Center (NRC). The requirements to notify the NRC are as follows:

National Response Center Reporting Requirements	
Hazardous Substance	If a hazardous substance is released to the environment in an amount that equals or exceeds its reportable quantity (RQ) , the release must be reported to federal authorities unless certain reporting exemptions for hazardous substance releases also apply.
Oil under the "Sheen Rule"	Under this regulation, reporting oil discharges does not depend on the specific amount of oil discharged. Instead, it can be triggered by the presence of a visible sheen created by the discharged oil: <ul style="list-style-type: none">• Violates state water quality standards• Causes a film or sheen on the water's surface• Leaves sludge or emulsion beneath the surface
Oil under SPCC rule 40 CFR 112.4	A discharge of: <ul style="list-style-type: none">• More than 1,000 U.S. gallons of oil in a single discharge to navigable waters or adjoining shorelines• More than 42 U.S. gallons of oil in each of two discharges to navigable waters or adjoining shorelines occurring within any twelve-month period

Please note that if you are unsure whether to report a spill, report it.

When calling the NRC, be prepared to provide the following information:

- Your name, location, organization, and telephone number
- Name and address of the party responsible for the incident; or name of the carrier or vessel, the railcar/truck number, or other identifying information
- Date and time of the incident
- Location of the incident
- Source and cause of the release or spill
- Types of material(s) released or spilled
- Quantity of materials released or spilled
- Medium (e.g., land, water) affected by release or spill
- Danger or threat posed by the release or spill
- Number and types of injuries or fatalities (if any)
- Weather conditions at the incident location
- Whether an evacuation has occurred
- Other agencies notified or about to be notified
- Any other information that may help emergency personnel respond to the incident

State Reporting Requirements

Requirements to report spills vary by state and program. The table below has been prepared to assist with reporting spills related to hazardous substances and petroleum and is not intended to be all-inclusive. In addition, due to ever-changing regulations, it is always a good practice to check with your state agency for applicable reporting requirements. If you are unsure whether to report a spill, it is always a good practice to report it. **Be prepared to provide information related to the release similar to the federal reporting requirements above.** To report a spill of hazardous substances or petroleum products, see the table below:

State	Agency	Spill Number	Specific Reporting Requirements
Alabama	ADEM	800-843-0699	<ul style="list-style-type: none">• Spills of oil, hazardous materials, and fish kills should be reported

State	Agency	Spill Number	Specific Reporting Requirements
Alaska	ADEC	800-478-9300	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> Any hazardous substance release must be reported immediately upon discovery <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> Any release of oil to water must be reported as soon as the person discovers the discharge. Any release of oil more than 55 gallons to land must be reported as soon as the person discovers the discharge. Any oil release to land of more than 10 gallons but less than 55 gallons must be reported within 48 hours of the discharge's discovery. Any release of oil more than 55 gallons to secondary containment areas must be reported within 48 hours of the discharge's discovery. A person in charge of a facility or operation shall maintain and provide to the Department monthly a written record of the discharge of oil from 1 to 10 gallons.
Arizona	ADEQ	800-234-5677 602-771-2330	<p>Spills or releases of the following must be reported within 24 hours of discovery:</p> <p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> A spill or overfill of a hazardous substance that equals or exceeds its reportable quantity under CERCLA A spill or overfill of a hazardous substance that is less than the reportable quantity under CERCLA, not contained and cleaned up within 24 hours. A release of a regulated substance <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> A spill or overfill of petroleum that results in a release exceeding 25 gallons or causes a sheen on nearby surface water A spill or overfill of petroleum resulting in a release of 25 gallons or less that is not contained and cleaned up within 24 hours

State	Agency	Spill Number	Specific Reporting Requirements
Arkansas	ADEQ	501-683-6705 501-682-0716	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> All fresh or new spills or releases of hazardous wastes to the environment must be reported within 24 hours of detection of the release. <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> Transportation-related spills of 25 Gallons or more to land Any amount spilled into the water
California	Cal OES	800-852-7550	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> Any significant release or threatened release of a hazardous material requires immediate reporting by the responsible person to the Cal OES State Warning Center (800) 852-7550 and 911. <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> 42 Gallons or more to land Any amount spilled into the water
Colorado	CDPHE	877-518-5608	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> Spill or Overfill of a regulated substance to land that is not cleaned up within 24 hours must be reported Any release of a hazardous substance that exceeds its reportable quantity (RQ) Any amount spilled into the water <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> Any amount spilled into the water Petroleum releases of 25 gallons or more (or any size that causes a sheen on nearby surface waters) from regulated aboveground and underground fuel storage tanks must be reported to the Division of Oil and Public Safety (303-318-8547) within 24 hours.
Connecticut	CDEEP	860-424-3338 866-337-7745 860-424-3333	<ul style="list-style-type: none"> Any oil or petroleum products, chemicals, wastes, or other potentially dangerous materials released in any manner must be reported.

State	Agency	Spill Number	Specific Reporting Requirements
Delaware	DNREC	800-662-8802	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> Any discharge into surface waters, groundwater, or land above any Delaware Reportable Quantity (DRQ) <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> Petroleum Substances, including Heating Oil, Motor Fuel, and Used Oil – 25 Gallons Petroleum Substances other than Heating Oil, Motor Fuel, and Used Oil – 150 Gallons <p>Discharges that are contained within a building are exempt from reporting requirements.</p>
Florida	FDEP	800-320-0519	<ul style="list-style-type: none"> Any spill into state waterways Any spill greater than 25 gallons Any spill threatening the public or the environment Any spill requiring evacuation Any spill requiring state or federal notification or assistance
Georgia	GDNR	800-241-4113	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> Any unknown amount spilled/released into the environment Any amount exceeding a reportable quantity (RQ) <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> Any unknown amount or amount that creates a significant sheen on top-of-state waters Any unknown amount or amount that creates an emulsion or sludge under state waters

State	Agency	Spill Number	Specific Reporting Requirements
Hawaii	HSERC	808-586-4249 808-236-8200	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> Any release of hazardous substances equal to or above a Reportable Quantity (RQ) must be reported verbally immediately A written follow-up must be submitted and postmarked no later than 30 days after the initial discovery of the release <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> Any amount of oil that, when released into the environment, causes a sheen to appear on surface water or any navigable water of the state Any free product that appears on groundwater Any amount of oil released to the environment greater than 25 gallons Any oil released to the environment that is less than 25 gallons but not contained and remediated within 72 hours.
Idaho	IDEQ	800-632-8000 208-846-7610	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> Immediately report an unauthorized release of hazardous materials to state waters or to land such that there is a likelihood that it will enter state waters Any hazardous material that exceeds a reportable quantity (RQ) <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> Any release of petroleum or oil that produces a sheen on nearby surface water Any spill or overfill of petroleum that results in a release to the environment that exceeds 25 gallons Any oil released to the environment that is less than 25 gallons but not contained and remediated within 24 hours.

State	Agency	Spill Number	Specific Reporting Requirements
Illinois	SERC	800-782-7860 217-782-7860	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> A release is equal to or greater than the Reportable Quantity (RQ) or a hazardous substance or extremely hazardous substance <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> Any release of petroleum or oil that produces a sheen on nearby surface water or threatens navigable waters Any spill or overflow of petroleum that results in a release to the environment that exceeds 25 gallons from an underground storage tank Release from an aboveground storage tank that is equal to or greater than the RQ
Indiana	IDEM	888-233-7745 317-233-7745	<ul style="list-style-type: none"> All spills are required to be reported
Iowa	IDNR	515-725-8694	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> Release that has the potential to leave the property by run-off, sewers, tile lines, culverts, drains, utility lines, or some other conduit Release that has the potential to reach any water of the state – either surface water or groundwater Release that can be detected in the air at the boundaries of the facility property by the senses (sight and smell) or by monitoring equipment Release that is a potential threat to the public health and safety Any release where local officials (Fire department, law enforcement, Hazmat, public health, and emergency management) respond to the incident Any release that exceeds a Federal Reportable Quantity (RQ). <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> All spills must be reported when a hazardous condition occurs (any situation involving the actual, imminent, or probable spillage, leakage, or release of a hazardous substance onto the land, into a water of the state, or into the atmosphere which creates an immediate or potential danger to the public health or safety or the environment) <p>Petroleum Releases from Underground Storage Tanks</p> <ul style="list-style-type: none"> Report suspected or confirmed releases within 24 hours If a hazardous condition exists, then it must be reported within 6 hours

State	Agency	Spill Number	Specific Reporting Requirements
Kansas	KDHE	785-291-3333	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> Any release that enters the waters of the state Any release to soil that is above a Reportable Quantity (RQ) A release to soil of 100 pounds of any pollutant that is not listed on the RQ table and is considered a hazardous waste <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> 25 gallons of oil unless oil is released during the exploration and production of petroleum <p>Other Releases</p> <ul style="list-style-type: none"> Two or more releases on the same property within 90 days and cumulative amount exceeds the RQ Any release that is discovered during an environmental investigation
Kentucky	KEEC	800-928-2380 502-564-2380	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> A release is equal to or greater than the Reportable Quantity (RQ) <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> Any release of a petroleum product 25 gallons or more within a 24-hour period A release of diesel fuel 75 gallons or more within a 24-hour period Any amount that creates a visible sheen on surface waters
Louisiana	LDEQ	225-925-6595 (LSP) 225-219-3640 (SPOC)	<ul style="list-style-type: none"> As soon as possible and within the first hour of discovery, report to the LSP any emergency incidents, defined as any condition that could reasonably be expected to endanger the health and safety of the public, significantly adversely impact the land, water, or air environment, or cause severe property damage. A release that exceeds a reportable quantity (RQ) but does not meet the definition of an emergency condition must be reported to the LSP within 24 hours of discovery. The discharger shall notify SPOC within seven days of any unauthorized discharge that contaminates the state's groundwaters or otherwise moves in, into, within, or on any saturated subsurface strata.

State	Agency	Spill Number	Specific Reporting Requirements
Maine	MDEP	800-452-4664 (Haz Materials) 800-782-0777 (Oil Spills)	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> All hazardous materials spills must be reported immediately In addition, hazardous waste spills must be reported in writing within 15 days Hazardous materials spills must also be reported in writing within 30 days <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> Spills must be reported within 2 hours of discovery A suspected or confirmed release from an underground storage tank must be reported within 24 hours
Maryland	MDE	866-633-4686	<ul style="list-style-type: none"> Report any spill threatening public health or the environment's well-being, such as oil and chemical spills or accidents releasing pollutants.
Massachusetts	MDEP	888-304-1133	<ul style="list-style-type: none"> Report a spill of chemical (either oil or hazardous material) that exceeds the Reportable Quantity (RQ) or Reportable Concentration (RC). You can search for RQs and RCs on the MDEP website here
Michigan	MDEGLE	800-292-4706	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> A release is equal to or greater than the Reportable Quantity (RQ) must be reported within 24 hours of discovery <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> Discharge that violates applicable water quality standards Discharge that creates a significant sheen on top-of-state waters Discharge that creates an emulsion or sludge under state waters Discharge from a UST system
Minnesota	MPCA	800-422-0798 651-649-5451	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> Report any amount of any substance under your control released into the environment that could pollute the state's waters. <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> Report any spill of more than five gallons of petroleum

State	Agency	Spill Number	Specific Reporting Requirements
Mississippi	MDEQ	800-222-6362	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> Any amount exceeding a reportable quantity (RQ) <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> Any amount that violates applicable water quality standards Any amount that creates a significant sheen on top-of-state waters Any amount that creates an emulsion or sludge under state waters
Missouri	MDNR	573-634-2436	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> As soon as possible, report any release of hazardous substances resulting in a hazardous substance emergency <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> Immediately report any oil reaching or threatening to reach the waters of the U.S As soon as possible, report any release of petroleum, including crude oil over 50 gallons
Montana	MDEQ	406-324-4777 MDES 800-457-0568 Petroleum Releases	<p>Hazardous Substance Release</p> <ul style="list-style-type: none"> Releases or spills of hazardous substances in amounts that meet or exceed the reportable quantities in 40 CFR Part 302 Releases or spills of any materials that would lower groundwater quality below water quality standards. <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> Spills, overfills, and suspected releases from underground and petroleum storage tanks. Releases or spills of any materials that would lower groundwater quality below water quality standards. <p>Other Releases</p> <ul style="list-style-type: none"> Spills that enter or may enter state water or drainage areas that lead directly to surface water Spills that cause sludge or emulsion beneath the surface of the water, stream banks, or shorelines Spills that cause a sheen or change the color of the water, stream banks, or shorelines Spills of twenty-five (25) gallons or more of any petroleum product such as crude oil, gasoline, diesel fuel, aviation fuel, asphalt, road oil, kerosene, fuel oil, produced water, injection water, salt water, or combination thereof; and derivatives of mineral, animal, or vegetable oils

State	Agency	Spill Number	Specific Reporting Requirements
Nebraska	NDEE	402-471-2186 Business Hours 402-479-4921 After Hours	<p>Hazardous Substance Release</p> <ul style="list-style-type: none"> • Immediate notification is required of any hazardous substance release that occurs beneath the land's surface or impacts or threatens the state's waters or the public health and welfare • Immediate notification is required of a release of a hazardous substance that equals or exceeds 100 pounds or its reportable quantity (RQ) <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> • Immediate notification is required of any oil release that occurs beneath the land's surface or impacts or threatens the state's waters or the public health and welfare • Immediate notification is required of a release of oil in a quantity that exceeds 25 gallons
Nevada	NDEP	888-331-6337 In State 775-687-9485 Out of State	<p>Hazardous Substance Release</p> <ul style="list-style-type: none"> • Any spill where the amount is equal to or greater than the substance's Reportable Quantity (RQ) • A spill of any quantity that affects a waterway within the State of Nevada must be reported, regardless of the quantity. <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> • The reportable quantity for petroleum products such as gasoline, diesel, and hydraulic fluid is 25 gallons or 3 cubic yards of contaminated material or the presence in groundwater. • A spill of any quantity that affects a waterway within the State of Nevada must be reported, regardless of the quantity (e.g., oil sheen).
New Hampshire	NHDES	603-271-3899 Mon-Fri 603-233-4381 Weekends	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> • Immediately notify within one hour of discovery the local fire department and the NHDES Emergency Response Group: • Any discharge of hazardous materials that poses a threat to human health or the environment (into a storm or sanitary sewer, onto land, or into air, groundwater, or surface water) <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> • Immediately notify the NHDES Emergency Response Group • Any discharge of oil 25 gallons or more

State	Agency	Spill Number	Specific Reporting Requirements
New Jersey	NJDEP	877-927-6337	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> Immediately report all discharges of hazardous materials regardless of quantity. <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> Immediately report all discharges of oil regardless of quantity.
New Mexico	NMED	505-827-9329	<ul style="list-style-type: none"> Any discharge from any facility of oil or other water contaminant, in such quantity as may, with reasonable probability, injure or be detrimental to human health, animal or plant life, or property, or unreasonably interfere with the public welfare or the use of property. Report leaks or spills from petroleum storage tanks within 24 hours of discovery
New York	NYDEC	800-457-7362	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> A spill of a reportable quantity that occurs within any twenty-four-hour period; A spill of a quantity that is less than a reportable quantity if any of the following conditions exist: <ul style="list-style-type: none"> such spill results or may reasonably be expected to result <ul style="list-style-type: none"> in a fire in an explosion in the violation of air quality standards in vapors, dust, and/or gases that may cause illness or injury to persons, not including persons in a building where a release originates run-off from fire control or dilution waters may reasonably be expected to result in or contribute to a violation of water quality standards. Any spill that enters state waters <p>Oil/Petroleum Releases</p> <p>Petroleum spills must be reported within two hours of discovery</p> <ul style="list-style-type: none"> Any spill of petroleum that enters state waters Any spill of petroleum 5 gallons or more <p>Petroleum spills of less than 5 gallons that do not enter state waters, are contained, and cleaned up within 2 hours of discovery do not need to be reported.</p>

State	Agency	Spill Number	Specific Reporting Requirements
North Carolina	NCDEQ	919-814-0375	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> Report all spills that meet or exceed the reportable quantity (RQ) <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> Immediately report a spill of petroleum: That is 25 gallons or more That causes a sheen on nearby surface water, regardless of quantity That is discharged at a distance of 100 feet or less from any surface water body, regardless of quantity That is none of the above but cannot be cleaned up after 24 hours
North Dakota	NDEQ	701-328-5210	<ul style="list-style-type: none"> Any spill or discharge of liquid or solid (not gaseous) waste that may cause pollution of the waters of the state must be reported immediately
Ohio	OEPA	800-282-9378 614-224-0946	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> A release of a hazardous substance in a quantity equal to or exceeding the applicable reportable quantity (RQ) <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> Any amount which causes a film or sheen upon or discoloration of the surface of the waters or cause a sludge or emulsion to be deposited beneath the surface of the waters Twenty-five gallons or more to land Two hundred ten gallons (five barrels) or more of crude oil from an oil and gas extraction storage facility
Oklahoma	ODEQ OCC	800-522-0206 405-521-4683	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> A release of any substance equal to or exceeding the corresponding reportable quantity (RQ). <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> Any spill or discharge to the waters of the state Any release to the subsurface from a petroleum storage tank system A release of 25 gallons or more from an aboveground storage tank system A release of less than 25 gallons from an aboveground storage tank system that cannot be cleaned up within 24 hours.

State	Agency	Spill Number	Specific Reporting Requirements
Oregon	ODEQ	800-452-0311	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> Hazardous materials equal to, or greater than, the reportable quantity <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> Any amount of oil to the waters of the state; Oil spills on land over 42 gallons
Pennsylvania	PDEP	800-541-2050	<ul style="list-style-type: none"> Immediately when a toxic substance or other substance that could cause pollution is discharged into "waters of this Commonwealth."
Rhode Island	RIDEM	401-537-4533 Business Hours 401-222-3070 Anytime	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> Any amount of a hazardous substance, whether on land, in water, or in the air If you suspect a release is imminent <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> Immediately report any release of oil or petroleum
South Carolina	SCDES	888-481-0125	<ul style="list-style-type: none"> Report any oil, petroleum, chemical, or hazardous material release or a fish kill
South Dakota	SDDANR	605-773-3296 Business Hours 605-773-3231 After Hours	<p>Spills must be reported immediately based on the following:</p> <ul style="list-style-type: none"> The discharge threatens or can threaten the waters of the state (surface water or groundwater) The discharge causes an immediate danger to human health or safety The discharge exceeds 25 gallons The discharge causes a sheen on surface water The discharge exceeds the groundwater quality standards of ARSD chapter 74:54:01 The discharge exceeds the surface water quality standards of ARSD chapter 74:51:01 The discharge harms or threatens to harm wildlife or aquatic life The discharge of crude oil in field activities under SDCL chapter 45-9 is greater than 1 barrel (42 gallons) The discharge is less than 25 gallons but has not been cleaned up within 24 hours

State	Agency	Spill Number	Specific Reporting Requirements
Tennessee	TEMA	800-262-3300	<ul style="list-style-type: none"> A Release of a hazardous substance or petroleum that exceeds its reportable quantity must be reported.
Texas	TCEQ	800-832-8224	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> A release of any substance onto land equal to or exceeding the corresponding reportable quantity (RQ). A release of any substance into water equal to or exceeding the corresponding RQ or 100 pounds, whichever is less <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> A release of 210 gallons or more of crude oil onto land A release of crude oil or petroleum into water that creates a sheen A Petroleum release of 210 gallons or more onto land from exempts PST facility A petroleum release of 25 gallons or more onto land from a non-exempt PST facility
Utah	UDEQ	801-536-0200	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> Immediately report any release of 100 Kilograms or more Immediately report any release into the waters of the state <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> Immediately report used oil spills of 25 gallons or more Immediately report spills that enter waters or the state
Vermont	VDEC	802-825-1138 Business Hours 800-641-5005 24 Hours	<p>The following must be reported:</p> <ul style="list-style-type: none"> Any discharge of hazardous waste or release of hazardous material that exceeds 2 gallons A discharge of hazardous waste or release of hazardous material that is less than or equal to 2 gallons and poses a potential or actual threat to human health and the environment A discharge of hazardous waste or release of hazardous material that equals or exceeds its corresponding reportable quantity (RQ)
Virginia	VDEM	804-674-2400	Any release that equals or exceeds a reportable quantity (RQ) must be reported.

State	Agency	Spill Number	Specific Reporting Requirements
Washington	WDE	800-258-5990	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> • Immediately report any release <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> • Immediately report any release into the water • Within 90 days of discovery • Within 24 hours from Underground Storage Tanks
West Virginia	WVDEP	800-642-3074	<ul style="list-style-type: none"> • Immediately report all spills or discharges of pollutants into the waters of the state • Immediately report confirmed releases from aboveground storage tanks
Wyoming	WDEQ	307-777-7501	<p>Hazardous Substance Releases</p> <ul style="list-style-type: none"> • Immediately report any oil or hazardous substance that enters the waters of the state • Spill or overfill of a regulated hazardous substance that results in a release to the environment that equals or exceeds its reportable quantity (RQ) <p>Oil/Petroleum Releases</p> <ul style="list-style-type: none"> • Spill or overfill of petroleum that results in a release to the environment that exceeds 25 gallons or that causes a sheen on nearby surface water • More than ten barrels (420 gallons) of crude oil, petroleum condensate, produced water, or a combination thereof • More than 25 gallons of refined crude oil products, including but not limited to gasoline, diesel motor fuel, aviation fuel, asphalt, road oil, kerosene, fuel oil, and derivatives of mineral, animal, or vegetable oils. • Spills from storage tank systems that are less than 25 gallons but cannot be cleaned up within 24 hours must be reported

Remember, it is always a good practice to report a release and never try to clean up a release unless you are trained.