

Safe Excavation and Trenching

Location:
Effective Date:
Revision Number: 1

Purpose

This policy establishes the responsibilities of , its managers/supervisors and its employees in maintaining a safe and productive working environment. It is in place to ensure that all parties closely follow Occupational Safety and Health Administration (OSHA) guidelines and to reduce the number of preventable on-the-job injuries.

Scope

Safety while excavating or trenching is everyone's responsibility. Therefore, this policy applies to all employees whether they are on the work site daily or occasionally in the capacity of worker, supervisor or safety manager.

Applicability

This policy applies whenever any excavations are made. This includes the following:

- A trench, or a narrow excavation made below the surface of the ground where the depth is greater than the width, but where the width does not exceed 15 feet
- A general excavation, which is any man-made cut, cavity, trench or depression in the earth's surface formed by earth removal, including anything from cellars to highways

Responsibilities

The following responsibilities apply to various levels within the company.

Senior management will do the following:

- Require the full application and integration of this policy into daily operations, as applicable, in all areas of responsibility and with all direct reports
- Assess managers and supervisors in their ability to apply this policy

The designated safety administrator will do the following:

- Administer all aspects of this policy
- Coordinate training for affected employees
- Provide necessary technical assistance to managers and supervisors
- Maintain and update the written program as required
- Periodically assess the effectiveness of this program and its on-site implementation

Managers and supervisors will do the following:

- Know how this policy applies to those employees under their direct control
- Integrate and enforce this policy's provisions in their areas of responsibility
- Help coordinate training for affected employees
- Provide coaching and corrective action when employees' actions violate this policy

All affected employees will do the following:

- Do their best to integrate the safety practices presented in this policy in their daily activity on site
- Follow all training, instructions and directives relative to this policy
- Seek clarification whenever there are questions concerning the application of this policy in daily operations

SITE INSPECTION

The fatality rate for excavation and trenching work is 112 percent higher than the rate for general construction. Therefore, it is crucial that the work site be inspected for safety not only before digging for the first time, but also before work begins on the site every day, as needed throughout the course of the workday, following rainstorms or following any other hazard-increasing event. The designated inspector at will be a competent person who demonstrates the following:

- Training, experience and knowledge of soil analysis, use of protective systems, all the requirements of 29 CFR 1926, subpart P and any other pertinent OSHA regulations
- The ability to detect conditions that could result in cave ins, failures of protective systems and hazardous atmospheres
- The authority to take prompt corrective measures to eliminate existing and predictable hazards
- The authority and ability to stop work when required

Pre-job Inspection

Before preparing a bid, carefully evaluate the following:

- Area traffic flow
- The water table
- Soil conditions
- Surface and groundwater conditions
- Proximity of structures and their condition
- Location of overhead and underground utilities, including sewer, telephone, fuel, electric and water

Pre-Work Inspection

Do the following before excavation begins:

- Remove, protect, clearly mark and properly support exposed utility installations
- Provide properly marked, highly visible vests to any employees exposed to vehicle traffic
- Remove, neutralize or properly mark potentially hazardous surface obstacles
- Ensure all employees are properly trained on the equipment they will be using on-site
- Debrief employees on the emergency response system in place in the event of an accident

On-the-Job Inspection

Do the following before work each day, periodically during the day and after a heavy rain or other potentially hazardous conditions:

- Evaluate all soil conditions
- Inspect excavations and adjacent areas for possible cave-ins, failures of protective systems/equipment and hazardous atmospheres
- Remove any employees from the area if you detect a hazardous situation
- Make sure everyone on the site is wearing the proper personal protective equipment (PPE)

GENERAL SITE SAFETY

Supervisor/Manager Duties

Those in the management, supervisor or designated safety person responsibilities will be depended upon to do the following:

- Provide safe access into and out of the excavation site
- Ensure adequate ventilation or respiratory protection is available in the event of hazardous fumes
- Ensure appropriate protections are available if water accumulation is a problem or becomes a problem on the site during the course of the workday
- Keep excavation site open the minimum amount of time needed to complete operations
- Ensure all materials and equipment are free from damage or defect
- Make sure employees are using materials and equipment in the way the manufacturer intended
- Maintain at least one copy of the design at the jobsite during construction of the protective system
- Attend lifelines at all times when employees enter bell-bottom pier holes, deep confined spaces or other hazardous conditions

Employee Duties

- Wear all PPE correctly
- Use all equipment and materials only in the way intended by the manufacturer
- Do not work in excavations where there is accumulated water unless you feel your supervisor has taken adequate steps to protect you from the dangers posed by water accumulation
- If you are in doubt of the air quality, have it tested and wear the proper PPE
- Use guardrails when crossing walkways or bridges over the excavation site
- Do not enter a confined space unless you are trained to do so

SPOIL PILE SAFETY

- The weight of the spoils at your site can cause a cave-in or can roll back on top of workers, especially if placed in an unsafe area. To avoid hazards,
- Set spoils and equipment at least 2 feet back from the excavation
- Use a trench box or other retaining device to prevent equipment and spoils from falling back into the site
- If the site does not allow a 2-foot setback, arrange for spoils to be temporarily hauled to another location

ENTRY/EXIT SAFETY

In some cases, your survival in an accident may depend on how fast you can exit the site. Supervisors and managers are responsible for the following items, but employees also have the responsibility to immediately notify management if the access conditions are unsafe:

- Stairways, ladders or ramps should exist in all trenches that are 4 feet deep or more
- Workers should always be within 25 lateral feet of a means of exit
- Two or more components of a ramp or runway must be connected to prevent displacement and must be of uniform thickness
- Components of a ramp or runway must be connected by cleats that are attached in a way that does not cause tripping

- Structural ramps must have a non-slip surface, and employees should have proper footwear to prevent slipping on ramps
- Earthen ramps may only be used as an exit if a worker can walk on them in an upright position and if they have been evaluated by a competent person

PROTECTIVE SUPPORT SAFETY

- All deep excavations must be protected by a system designed by a registered, professional engineer
- Before any sloping, benching or support system is selected, the soil will be evaluated and classified by a professional
- Shoring, bracing or underpinning will be used to ensure the stability of nearby structures, like buildings, walls, sidewalks or pavement
- There will be no excavating below the level of the base of any foundation or retaining wall unless there is an adequate support system
- Excavating under sidewalk and pavement is prohibited unless there is an appropriate support system present
- For the protection of employees, support system members will be securely connected, safely and properly installed and never overloaded with excess weight
- After work is complete, the excavation must be backfilled as the protective system is dismantled
- After the excavation has been cleared, workers will remove the protective system from the bottom up

MATERIAL AND EQUIPMENT SAFETY

- Keep all materials/equipment that might fall or roll into the site at least two feet from the edge, use retaining devices, or do both
- Know 's warning system for alerting equipment operators of the edge of an excavation
- Always load buckets or hoppers down grade to increase the speed of operation, lessen the wear and reduce the need for a push tractor
- Never use an elevating part of a vehicle or machine as a man-lift unless it is specifically designed for that purpose
- If materials or equipment become damaged during operation, alert a supervisor or manager immediately
- Only use equipment in a way that the manufacturer intended and that reduces or eliminates hazards
- Stand as far away as you can from equipment being loaded or unloaded
- Do not carry extra passengers in vehicles or equipment that is not designed to carry more than one person
- Check all vehicles at the beginning of each shift and ensure proper order of the service brakes, parking system, brakes, tires, horn, steering mechanism, coupling devices, seat belts, operating controls and all safety devices
- Use the three-point climbing system when mounting or dismounting equipment
- Only operate vehicles and equipment near excavations when the ground conditions are safe and stable
- You may not stand or pass under the elevated portion of any equipment, regardless of whether it is loaded or empty
- Do not drive equipment up to a person standing in front of an excavation or a fixed object
- When not in use, equipment and vehicles must be fully lowered, neutralized, shut off and wheels must be blocked
- Do not handle unstable or unsafely arranged loads
- Do not handle loads greater than the equipment's capacity
- Before moving, secure the load as best as possible within the bucket or hopper
- Do not move the machine, vehicle or equipment you are using unless you are aware of all ground workers' positions around you

FALL SAFETY

- Use scaling to remove loose rock/soil, and make sure protective barricades are present to protect you from falling rock, soil or other materials
- prohibits employees from working on faces of sloped or benched excavations at levels above other employees unless the lower-level employees are properly protected from falling, rolling or sliding material and from all other equipment hazards
- Do not work under loads handled by lifting or digging equipment – you could get struck or buried by material
- Always be aware that a trench can fail – look out for tension cracks, sliding, toppling or bulging
- Do not cross a trench unless there is a safe pedestrian walkway/bridge or designated vehicle crossing area under the supervision of a safety manager

Employee Acknowledgment

At , the safety of our employees is our greatest concern. We want you to feel confident in your security while you are on the job site, which is why we established this Safe Excavation and Trenching Policy.

All employees are expected to understand and actively participate in these safety procedures, guidelines and requirements. encourages its employees to take a proactive approach in identifying potential problems or violations by promptly reporting them to their supervisor.

Prior to working on any job site, each employee is expected to have read the entire Safe Excavation and Trenching Policy, which includes the following:

- Site Inspection
- General Site Safety
- Spoil Pile Safety
- Entry/Exit Safety
- Protective Support Safety
- Material and Equipment Safety
- Fall Safety

If you have any uncertainty or questions regarding the content of these policies, you are required to consult your supervisor. This should be done prior to signing and agreeing to the Safe Excavation and Trenching Policy.

I have read and understand 's Safe Excavation and Trenching Policy, and I understand the requirements and expectations of me as an employee. I will do everything within my power to keep myself and my co-workers away from hazards while excavating and trenching because I know site safety is everyone's responsibility.

Employee signature

Date