

***EXAM***  
***OSHA AWARENESS SERIES***

***COURSE 13932***  
***Trenching and Excavating***

***Continuing***  
***Education Course***



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We would like to thank you for ordering Course 13932 OSHA Awareness-Trenching and Excavations.

**This course has been approved by the Wisconsin Department of Safety and Professional Services for the following:**

Credential Description	Continuing Education Credit Hours
<i>Automatic Fire Sprinkler Contractor License</i>	<i>1.5</i>
<i>Commercial Electrical Inspector Certification</i>	<i>3</i>
<i>Commercial Plumbing Inspector Certification</i>	<i>4</i>
<i>Dwelling Contractor Qualifier Certification</i>	<i>1.5</i>
<i>Industrial Journeyman Electrician License</i>	<i>3</i>
<i>Journeyman Electrician License</i>	<i>3</i>
<i>Journeyman Plumber License</i>	<i>4</i>
<i>Journeyman Plumber-Restricted Service License</i>	<i>4</i>
<i>Manufactured Home Installer License</i>	<i>1.5</i>
<i>Master Electrician License</i>	<i>3</i>
<i>Master Plumber License</i>	<i>4</i>
<i>Master Plumber-Restricted Service License</i>	<i>4</i>
<i>Registered Electrician Registration</i>	<i>3</i>
<i>Residential Journeyman Electrician License</i>	<i>3</i>
<i>Residential Master Electrician License</i>	<i>3</i>
<i>Soil Tester Certification</i>	<i>4</i>
<i>UDC-Electrical Inspector Certification</i>	<i>3</i>
<i>UDC-Plumbing Inspector Certification</i>	<i>4</i>
<i>Utility Contractor License</i>	<i>4</i>

**Materials included**

1. REVIEW MATERIALS
2. EXAM
3. ANSWER SHET

**Once you complete the course**

Return the bubble answer sheets to our company. Fax: (608) 571-0096

E-mail: **michael@uscontractorlicense.com**

US Mail: Above address

We will grade your exam, notify you of the results and also notify the State of Wisconsin of your completion of the course.

The State of Wisconsin requires that you attain a passing score of 70%. In the event that you did not attain the required score we will notify you of the incorrect answers. You will need to retake only the incorrect questions and resubmit them to us for grading purposes.

**After you are notified that you passed the course**

Save the Certificate of Completion from our company for your records. The State of Wisconsin will notify you approximately 30 days prior to the expiration of your License/Certification that you need to renew the license/certification.

Please feel free to contact us with any questions and/or suggestions on improving this course or future educational courses you would like to see us offer.

## OSHA Awareness – Trenching and Excavating

### Working Safely In Trenches

1. A safe means of egress shall be provided within \_\_\_\_\_ of workers in a trench.
- 20 feet
  - 25 feet
  - 30 feet
  - 35 feet

### Trenching and Excavation Safety

2. OSHA defines an excavation as any \_\_\_\_\_, or depression in the earth's surface formed by earth removal.
- man-made cut
  - cavity
  - trench
  - All of the above
3. A trench is defined as a narrow underground excavation that is deeper than it is wide, and no wider than \_\_\_\_\_.
- 15 feet
  - 20 feet
  - 25 feet
  - None of the above
4. Trenches 5 feet (1.5 meters) deep or greater require a protective system unless the excavation is made entirely in stable rock.
- True
  - False
5. OSHA standards require that trenches be inspected \_\_\_\_\_ by a competent person prior to worker entry to ensure elimination of excavation hazards.
- only as conditions change
  - daily and as conditions change
  - weekly or monthly, depending on the work being performed
  - weekly and as conditions change
6. Safe access and egress devices \_\_\_\_\_ be located within 25 feet (7.6 meters) of all workers.
- should
  - may
  - can
  - must

## *Excavations*

7. Examples of general Trenching and Excavation Rules:

- a. Know where underground utilities are located.
- b. Test for low oxygen, hazardous fumes and toxic gases.
- c. Inspect trenches following a rainstorm.
- d. All of the above

8. OSHA defines an excavation as any man-made cut, cavity, trench, or depression in the earth's surface formed by earth removal. This can include excavations for anything from cellars to highways.

- a. True
- b. False

9. Cave-ins pose \_\_\_\_\_ and are \_\_\_\_\_ than other excavation-related accidents to result in worker fatalities.

- a. the greatest risk/ much more likely
- b. a minimal risk / less likely
- c. no risk / not as likely
- d. a slight risk / statistically less likely

## *Excavation and Trenching Standard*

10. The OSHA Evacuation and Trenching Standard Rule applies to small excavations made in the earth's surface, excluding trenches.

- a. True
- b. False

11. The standard does not apply to house foundation/ basement excavations, including those that become trenches by definition when constructing formwork, foundations, or walls. For this exemption to apply, which of the following conditions must exist?

- a. No water, surface tension cracks, or other environmental conditions reduce the excavation's stability;
- b. Soil, equipment, and material surcharge loads are no closer to the top edge of the excavation than the excavation is deep. When you use front-end loaders to dig the excavations, place the soil surcharge load as far back from the edge of the excavation as possible, but never closer than 2 feet (.61 meters);
- c. The fewest crew members possible are performing the work; and Workers spend the minimum time possible in the excavation.
- d. All of the above

### **Preplanning**

12. Many on-the-job accidents result directly from inadequate initial planning. Waiting until after the work has started to correct mistakes in shoring or sloping slows down the operation, adds to the cost, and increases the possibility of a cave-in or other excavation failure.

- a. True
- b. False

13. Ask the utility companies or owners to find the exact location of underground installations. If they cannot respond within \_\_\_\_\_ (unless the period required by state or local law is longer) or cannot find the exact location of the utility installations, you may proceed with caution.

- a. 48 hours
- b. 36 hours
- c. 24 hours
- d. 12 hours

14. When you share the details of your safety and health program with employees, it is important to emphasize the critical role you expect them to play in keeping the jobsite safe. You \_\_\_\_\_ emphasize specific rules to help reduce the risk of on-the-job injuries.

- a. have to
- b. are required to
- c. may want to
- d. obligated to

### **Protective Systems**

15. You are \_\_\_\_\_ the most practical design approach for any particular circumstance.

- a. required to choose
- b. free to choose
- c. obligated to choose
- d. None of the above

16. All simple slope excavations \_\_\_\_\_ deep should have a maximum allowable slope of 1-1/2:1.

- a. 30 feet or more
- b. 30 feet or less
- c. 20 feet or more
- d. 20 feet or less

17. At least one copy of the data, including the identity of the registered professional engineer who approved it, \_\_\_\_\_ be kept at the worksite during construction of the protective system. After the system is completed, the data may be stored away from the jobsite, but a copy \_\_\_\_\_ be provided upon request to the Assistant Secretary of Labor for OSHA.

- a. must/ can
- b. must/ must
- c. can / must
- d. can / should

18. OSHA standards permit the use of a trench shield (also known as a welder's hut) if it provides the same level of protection or more than the appropriate shoring system.

- a. True
- b. False

19. Excavations under sidewalks and pavements are \_\_\_\_\_ you provide an appropriately designed support system or another effective means of support.

- a. discouraged even if
- b. prohibited even if
- c. prohibited unless
- d. never approved even if

20. The standard requires you to provide support systems such as shoring, bracing, or underpinning to ensure that adjacent structures such as \_\_\_\_\_ remain stable.

- a. buildings and walls
- b. sidewalks
- c. pavement
- d. All of the above

21. In addition, the standard permits excavation of \_\_\_\_\_ below the bottom of the members of a support or shield system of a trench if the system is designed to resist the forces calculated for the full depth of the trench. In addition, there must be no indications, while the trench is open, of a possible cave-in below the bottom of the support system.

- a. 3 feet or less
- b. 2 feet or more
- c. 2 feet or less
- d. 4 feet or less

22. Defective and damaged materials and equipment \_\_\_\_\_ failure of a protective system and other excavation hazards.

- a. may cause
- b. can cause
- c. will cause
- d. are known to cause

**Additional Hazards and Protections**

23. In addition to cave-ins and related hazards, workers involved in excavation work also are exposed to hazards involving falls, falling loads, and mobile equipment.

- a. True
- b. False

24. Prohibit employees from standing or working under loads being handled by lifting or digging equipment. \_\_\_\_\_ to stand away from vehicles being loaded or unloaded to protect them from being struck by any spillage or falling materials.

- a. Suggest to workers
- b. Ask workers
- c. Require workers
- d. None of the above

25. OSHA standards also require the use of diversion ditches, dikes, or other suitable means to prevent surface water from entering an excavation and to provide \_\_\_\_\_ of the adjacent area.

- a. some drainage
- b. adequate drainage
- c. protection
- d. coverage

26. \_\_\_\_\_ any excavation deeper than 4 feet (1.22 meters) or where an oxygen deficiency or a hazardous atmosphere is present or could reasonably be expected, such as a landfill or where hazardous substances are stored nearby, before an employee enters it.

- a. A competent person can test
- b. A competent person should test
- c. A competent person may test
- d. A competent person must test



27. If unhealthful atmospheric conditions exist or develop in an excavation, you \_\_\_\_\_ provide emergency rescue equipment such as a breathing apparatus, safety harness and line, and basket stretcher and ensure that it is readily available. This equipment \_\_\_\_\_ be attended when in use.

- a. must/must
- b. must/ should
- c. should/ should
- d. should/ must

28. OSHA requires you to provide safe access and egress to all excavations, including ladders, steps, ramps, or other safe means of exit for employees working in trench excavations \_\_\_\_\_ or deeper. These devices must be located in the excavation within \_\_\_\_\_ of all workers.

- a. 3 feet/ 25 feet
- b. 3 feet / 20 feet
- c. 4 feet / 25 feet
- d. 4 feet / 20 feet

29. An employee who enters a bell-bottom pier hole or similar deep and confined footing excavation may wear a harness with a lifeline. The lifeline should be attached securely to the harness and can be separate from any line used to handle materials.

- a. True
- b. False

30. The standard requires that a competent person inspect an excavation and the areas around it \_\_\_\_\_ for possible cave-ins, failures of protective systems and equipment, hazardous atmospheres, or other hazardous conditions.

- a. daily
- b. weekly
- c. bi-weekly
- d. as needed (no regular schedule)

31. Larger and more complex operations should have a \_\_\_\_\_ safety official who makes recommendations to improve implementation of the safety plan. In a smaller operation, the safety official may be \_\_\_\_\_ and usually will be a supervisor.

- a. full-time / full-time
- b. part-time / part-time
- c. full-time / part-time
- d. part-time / full-time

## **OSHA Assistance, Services and Programs**

32. OSHA can provide extensive help through a variety of programs, including assistance about safety and health programs, \_\_\_\_\_, and more.

- a. state plans & strategic partnerships
- b. training and education
- c. workplace consultation & voluntary protection programs
- d. All of the above

33. State plans are OSHA-approved job safety and health programs operated by individual states or territories instead of Federal OSHA. There are 26 state plans: 23 cover both private and public (state and local government) employment, and 3 (Connecticut, New Jersey, and New York) cover only the public sector.

- a. True
- b. False

34. In addition to helping employers identify and correct specific hazards, OSHA's consultation service provides \_\_\_\_\_, onsite assistance in developing and implementing effective workplace safety and health management systems that emphasize the prevention of worker injuries and illnesses.

- a. low cost
- b. free
- c. flat fee
- d. sliding scale (depending on the size of the company)

35. What does VPP stand for?

- a. Voluntary Partnership Program
- b. Vocational Provisionary Partnership
- c. Voluntary Protection Program
- d. Visionary Partnership Plan

36. OSHA Strategic Partnerships are alliances among labor, management, and government to foster improvements in workplace safety and health. These partnerships are federally regulated/mandated relationships between OSHA, employers, employee representatives, and others such as trade unions, trade and professional associations, universities, and other government agencies. OSPPs are the some of the oldest of OSHA's regulatory compliance programs.

- a. True
- b. False

**37. Whereas OSHA's Consultation Program and VPP entail one-on-one relationships between OSHA and individual worksites, most strategic partnerships seek to have a broader impact by building cooperative relationships \_\_\_\_\_.**

- a. with groups of employers only.**
- b. with groups of employees only.**
- c. with groups of employers and employees.**
- d. None of the above**

**38. OSHA's \_\_\_\_\_ are full-service centers offering a variety of informational services such as personnel for speaking engagements, publications, audiovisual aids on workplace hazards, and technical advice.**

- a. 43 area offices**
- b. 53 area offices**
- c. 63 area offices**
- d. 73 area offices**

**39. OSHA Regional offices. States with approved programs must have a standard that is identical to, or at least as effective as, the federal standard. Which regional office / region is Wisconsin part of?**

- a. Region VII / Kansas City**
- b. Region V / Chicago**
- c. Region III / Philadelphia**
- d. Region VIII / Denver**

**40. OSHA Area Offices. Wisconsin has \_\_\_\_\_ area office(s).**

- a. four**
- b. three**
- c. two**
- d. one**