

**Registration form**

**Confined Space CEU Training Course \$200.00**

Continuing Education Course Only, this course does not include a hands-on or actual training.

**48 HOUR RUSH ORDER PROCESSING FEE ADDITIONAL \$50.00**

**Start and finish dates:** \_\_\_\_\_

*You will have 90 days from this date in order to complete this course*

**Name** \_\_\_\_\_ **Signature** \_\_\_\_\_

*I have read and understood the disclaimer notice on page 2. Digitally sign XXX*

**Address:** \_\_\_\_\_

**City** \_\_\_\_\_ **State** \_\_\_\_\_ **Zip** \_\_\_\_\_

**Email** \_\_\_\_\_ **Fax ( \_\_\_\_\_ )** \_\_\_\_\_

**Phone:**  
**Home ( \_\_\_\_\_ )** \_\_\_\_\_ **Work ( \_\_\_\_\_ )** \_\_\_\_\_

**Operator ID #** \_\_\_\_\_ **Exp Date** \_\_\_\_\_

**Class/Grade** \_\_\_\_\_

**Please circle/check which certification you are applying the course CEU's.**

Water Treatment\_\_\_ Distribution \_\_\_ Collection\_\_\_ Wastewater Treatment \_\_\_

BPAT\_\_\_ Irrigation \_\_\_ CSI\_\_\_ Onsite Installer\_\_\_ Other \_\_\_\_\_

**Your certificate will be mailed to you in about two weeks unless you pay for the rush service.**

**Technical Learning College**  
PO Box 420, Payson AZ 85547-0420  
Fax (928) 272-0747 **info@tlch2o.com**  
**(928) 468-0665 Toll Free (866) 557-1746**

**Discover card** \_\_\_\_\_ **CCV code on card** \_\_\_\_\_  
**American Express**  
**Master Card / Visa Card #** \_\_\_\_\_ **Exp. Date** \_\_\_\_\_

**If you've paid on the Internet, please write your Customer #** \_\_\_\_\_

*We will stop mailing the certificate of completion we need your e-mail address. We will e-mail the certificate to you, if no e-mail address; we will mail it to you.*

## DISCLAIMER NOTICE

I understand that it is my responsibility to ensure that this CEU course is either approved or accepted in my State for CEU credit. I understand State laws and rules change on a frequent basis and I believe this course is currently accepted in my State for CEU or contact hour credit, if it is not, I will not hold Technical Learning College responsible. I also understand that this type of study program deals with dangerous conditions and that I will not hold Technical Learning College, Technical Learning Consultants, Inc. (TLC) liable for any errors or omissions or advice contained in this CEU education training course or for any violation or injury caused by this CEU education training course material. I will call or contact TLC if I need help or assistance and double-check to ensure my registration page and assignment has been received and graded.

Check here to see if the course is was approved in your State, TLC does not guarantee if the course is accepted for credit because States change their rules. Look under Links for State Approval Listing...

*You can obtain a printed version of the course from TLC for an additional \$79.95 plus shipping charges.*

## State Approval Listing URL...

<http://www.tlch2o.com/PDF/CEU%20State%20Approvals.pdf>

***This course is not good for confined space or Competent person certification; this course is only for continuing education purposes. You need a hands-on course for confined space certification. Confined space work/Trenching is very dangerous and this course is not a substitute for classroom training, it is for professional development only.***

## Grading Information

In order to maintain the integrity of our courses we do not distribute test scores, percentages or questions missed. Our exams are based upon pass/fail criteria with the benchmark for successful completion set at 70%. Once you pass the exam, your record will reflect a successful completion and a certificate will be issued to you.

**Please fax or e-mail the answer key to TLC [info@tlch2o.com](mailto:info@tlch2o.com)  
Western Campus Fax (928) 272-0747.**

Always call to confirm we've received your work.

***In the near future, we will stop mailing the certificate of completion so we need either your fax number or e-mail address. We will e-mail the certificate to you, if no e-mail address; we will fax it to you.***

## AFFIDAVIT OF EXAM COMPLETION

I affirm that I personally completed the entire text of the course. I also affirm that I completed the exam without assistance from any outside source. I understand that it is my responsibility to file or maintain my certificate of completion as required by the state or by the designation organization.

## TCEQ... Attention Texas Operators, CSI, Irrigators and Backflow Testers...

NOTE: Any course cannot be taken for same credit in the same renewal period. Please call TCEQ and make sure that these courses are still accepted for credit before starting. Do not retake this course for credit in the same renewal period.

TCEQ rules change frequently. (512) 239-4482 or (512) 239-0178.

**Confined Space Answer Key** Name \_\_\_\_\_

Phone# \_\_\_\_\_

*Please circle. Underline, bold or X the correct answer. Only one answer per question.*

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**CONFINED SPACE CEU TRAINING COURSE**  
**CUSTOMER SERVICE RESPONSE CARD**

NAME: \_\_\_\_\_

E-MAIL \_\_\_\_\_ PHONE \_\_\_\_\_

**PLEASE COMPLETE THIS FORM BY CIRCLING THE NUMBER OF THE APPROPRIATE ANSWER IN THE AREA BELOW.**

1. Please rate the difficulty of your course.  
Very Easy    0    1    2    3    4    5    Very Difficult
2. Please rate the difficulty of the testing process.  
Very Easy    0    1    2    3    4    5    Very Difficult
3. Please rate the subject matter on the exam to your actual field or work.  
Very Similar    0    1    2    3    4    5    Very Different

4. How did you hear about this Course? \_\_\_\_\_

5. What would you do to improve the Course?

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How about the price of the course?

Poor \_\_\_\_ Fair \_\_\_\_ Average \_\_\_\_ Good \_\_\_\_ Great \_\_\_\_

How was your customer service?

Poor \_\_\_\_ Fair \_\_\_\_ Average \_\_\_\_ Good \_\_\_\_ Great \_\_\_\_

Any other concerns or comments.

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**Grading Information**

In order to maintain the integrity of our courses we do not distribute test scores, percentages or questions missed. Our exams are based upon pass/fail criteria with the benchmark for successful completion set at 70%. Once you pass the exam, your record will reflect a successful completion and a certificate will be issued to you.

**Rush Grading Service**

If you need this assignment graded and the results mailed to you within a 48-hour period, prepare to pay an additional rush service handling fee of \$50.00. This fee may not cover postage costs. If you need this service, simply write RUSH on the top of your Registration Form. We will place you in the front of the grading and processing line.

For security purposes, please fax or e-mail a copy of your driver's license and always call us to confirm we've received your assignment and to confirm your identity.

## Confined Space CEU Training Course Assignment

You will have 90 days from the start of this assignment to successfully complete it with a score of 70%. If you need any assistance, utilize the Search function in Adobe Acrobat.

**You are expected to circle the correct answer on the enclosed answer key. Please include your name and address on your exam. The key is in the front.**

You can e-mail or fax your Answer Key along with the Registration Form to TLC.

### **Confined Space Terms Only one answer per question as from text**

1. This term means an atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from a permit space), injury, or acute illness from one or more of the following causes: Any other atmospheric condition that is immediately dangerous to life or health.

- A. Dangerous
- B. Hazardous atmosphere
- C. Permit-required confined space
- D. Toxic atmosphere
- E. None of the Above

2. This term means a confined space that has one or more of the following characteristics: Contains any other recognized serious safety or health hazard.

- A. Irritating atmosphere
- B. Hazardous atmosphere
- C. Permit-required confined space
- D. Multiple hazards
- E. None of the Above

3. This term means the employer's overall program for controlling, and, where appropriate, for protecting employees from, permit space hazards and for regulating employee entry into permit spaces.

- A. Safety program
- B. Hazardous atmosphere program monitoring program
- C. Confined space program
- D. Permit-required confined space program
- E. None of the Above

4. This term means a space that: Has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry.)

- A. Blanking space
- B. Hazardous area
- C. Permit-required confined space
- D. Confined space
- E. None of the Above

5. This term means the absolute closure of a pipe, line, or duct by the fastening of a solid plate (such as a spectacle blind or a skillet blind) that completely covers the bore and that is capable of withstanding the maximum pressure of the pipe, line, or duct with no leakage beyond the plate.
- Blanking or blinding
  - Stop
  - Lock or Locking
  - Crop or cropping
  - None of the Above
6. This term means the closure of a line, duct, or pipe by closing and locking or tagging two in-line valves and by opening and locking or tagging a drain or vent valve in the line between the two closed valves.
- Tagged
  - Locked
  - Double block and bleed
  - Blanked
  - None of the Above
7. This term means any occurrence (including any failure of hazard control or monitoring equipment) or event internal or external to the permit space that could endanger entrants.
- Emergency
  - Egress
  - Hazardous
  - Restricted
  - None of the Above
8. \_\_\_\_\_ means the surrounding and effective capture of a person by a liquid or finely divided (flowable) solid substance that can be aspirated to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, or crushing.
- Waterborne
  - Engulfment
  - Swelling
  - Encapsulating
  - None of the Above
9. This term means a confined space that has one or more of the following characteristics: Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section.
- Cross confined space
  - Confined space
  - Hazardous area
  - Permit-required confined space
  - None of the Above
10. This term means the action by which a person passes through an opening into a permit-required confined space. \_\_\_\_\_ includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.
- Begin
  - Attend
  - Work
  - Start
  - None of the above

11. This term means the written or printed document that is provided by the employer to allow and control entry into a permit space and that contains the information specified in paragraph (f) of this section.

- A. Entry permit
- B. Entry document
- C. Hot work permit
- D. None of the Above

12. This term means the person (such as the employer, foreman, or crew chief) responsible for determining if acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry and overseeing entry operations, and for terminating entry as required by this section.

- A. Manager
- B. Entry person
- C. Permit-required confined space attendant
- D. Supervisor
- E. None of the above

13. This term means an atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from a permit space), injury, or acute illness from one or more of the following causes: Flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit (LFL);

- A. Hot zone
- B. Danger zone
- C. Hazardous atmosphere
- D. Permit-required confined space
- E. None of the Above

14. This term means the employer's written procedure for preparing and issuing permits for entry and for returning the permit space to service following termination of entry.

- A. Entry permit
- B. Entry report
- C. Hazardous atmosphere log
- D. Permit system
- E. None of the Above

15. This term means any condition in a permit space that is not allowed by the permit during the period when entry is authorized.

- A. Permit condition
- B. Prohibited condition
- C. Rescue condition
- D. Testing gas
- E. None of the Above

16. This term means the personnel designated to rescue employees from permit spaces.

- A. Supervisor
- B. Attendant
- C. Rescue service
- D. Fire department
- E. None of the Above

17. This term means the equipment (including a retrieval line, chest or full-body harness, wristlets, if appropriate, and a lifting device or anchor) used for non-entry rescue of persons from permit spaces.

- A. Hoisting system
- B. Safety retrieval
- C. Rescue system
- D. Retrieval system
- E. None of the Above

18. This term means the process by which the hazards that may confront entrants of a permit space are identified and evaluated. \_\_\_\_\_ includes specifying the tests that are to be performed in the permit space.

- A. Permit testing
- B. Oxygen testing
- C. Gas monitoring
- D. Testing
- E. None of the Above

19. This term means an atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to \_\_\_\_\_ (that is, escape unaided from a permit space), injury, or acute illness from one or more of the following causes: Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent;

- A. Monitor
- B. Work
- C. Recovery service
- D. Testing
- E. None of the above

20. This term means a space that: Is not designed for continuous employee occupancy.

- A. Danger zone
- B. Hazardous atmosphere area
- C. Acceptable entry or egress area
- D. Confined space
- E. None of the Above

21. This term means the conditions that must exist in a permit space to allow entry and to ensure that employees involved with a permit-required confined space entry can safely enter into and work within the space.

- A. Authorized entry
- B. Hazardous atmosphere free
- C. Acceptable entry
- D. Allowable condition
- E. None of the Above

22. This term means an individual stationed outside one or more permit spaces who monitors the authorized entrants and who performs all attendant's duties assigned in the employer's permit space program.

- A. Authorized entrant
- B. Help mate
- C. Supervisor
- D. Attendant
- E. None of the Above

23. This term means an employee who is authorized by the employer to enter a permit space.

- A. Authorized entrant
- B. Worker
- C. Supervisor
- D. Attendant
- E. None of the Above

24. This term means the employer's written authorization to perform operations (for example, riveting, welding, cutting, burning, and heating) capable of providing a source of ignition.

- A. Hot work permit
- B. Inerting permit
- C. Immediately dangerous to life or health (IDLH) permit
- D. Isolation permit
- E. None of the Above

25. This term means any condition that poses an immediate or delayed threat to life or that would cause irreversible adverse health effects or that would interfere with an individual's ability to escape unaided from a permit space.

- A. LEL
- B. Dangerous
- C. Immediately dangerous to life or health (IDLH)
- D. Toxic
- E. None of the Above

26. This term means the displacement of the atmosphere in a permit space by a noncombustible gas (such as nitrogen) to such an extent that the resulting atmosphere is noncombustible.

- A. UEL
- B. Inerting
- C. Depraved
- D. Empty
- E. None of the Above

27. This term means the process by which a permit space is removed from service and completely protected against the release of energy and material into the space by such means as: blanking or blinding; misaligning or removing sections of lines, pipes, or ducts; a double block and bleed system; lockout or tagout of all sources of energy; or blocking or disconnecting all mechanical linkages.

- A. Tag out
- B. Inerting
- C. LOTO
- D. Isolation
- E. None of the Above

28. This term means an atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from a permit space), injury, or acute illness from one or more of the following causes: Atmospheric concentration of any substance for which a dose or a permissible exposure limit is published in Subpart G, Occupational Health and Environmental Control, or in Subpart Z, Toxic and Hazardous Substances, of this Part and which could result in employee exposure in excess of its dose or permissible exposure limit;

- A. Hazardous atmosphere
- B. Toxic
- C. Dangerous
- D. Permit-required confined space
- E. None of the Above

29. This term means the intentional opening of a pipe, line, or duct that is or has been carrying flammable, corrosive, or toxic material, an inert gas, or any fluid at a volume, pressure, or temperature capable of causing injury.
- A. Line opening
  - B. Line breaking
  - C. None of the Above
30. This term means a confined space that has one or more of the following characteristics:  
Contains or has a potential to contain a hazardous atmosphere.
- A. Hazardous atmosphere
  - B. Entrapment
  - C. Non-permit confined space
  - D. Permit-required confined space
  - E. None of the Above
31. This term means a confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm.
- A. Hazardous atmosphere
  - B. Hazardous area
  - C. Non-permit confined space
  - D. Permit-required confined space
  - E. None of the Above
32. This term means an atmosphere containing less than 19.5 percent oxygen by volume.
- A. Hazardous atmosphere
  - B. Gas alarm
  - C. Non-permit confined space
  - D. Oxygen deficient atmosphere
  - E. None of the Above
33. This term means an atmosphere containing more than 23.5 percent oxygen by volume.
- A. Hazardous atmosphere.
  - B. LEL
  - C. Non-permit confined space
  - D. Permit-required confined space
  - E. None of the above
34. This term means a space that: Is large enough and so configured that an employee can bodily enter and perform assigned work.
- A. Trench
  - B. Egress
  - C. Confined space
  - D. Permit-required confined space
  - E. None of the Above
35. This term means a confined space that has one or more of the following characteristics:  
Contains a material that has the potential for engulfing an entrant.
- A. Excavation
  - B. Trench
  - C. Confined space
  - D. Permit-required confined space
  - E. None of the Above

36. This term means an atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from a permit space), injury, or acute illness from one or more of the following causes: Airborne combustible dust at a concentration that meets or exceeds its LFL.

- A. Oxygen deficient atmosphere
- B. Oxygen enriched atmosphere
- C. Confined space
- D. Hazardous atmosphere
- E. None of the Above

**Excavation & Trench Safety Terms**

37. This term means a fine-grained natural soil that is plastic when moist and hard and brittle when dry. Clay is made up of particles smaller than .0002 millimeters.

- A. Soil
- B. Clumps
- C. Cohesive
- D. Gravel
- E. None of the above

38. This term means heavy lumps or thick groupings of soil.

- A. Type A soil
- B. Clumps
- C. Cohesive soil
- D. Cohesion
- E. None of the Above

39. This term means the relative ability to clump together, the force holding two like substances together.

- A. Spoil
- B. Clumping
- C. Cohesive
- D. Cohesion
- E. None of the Above

40. This term means when a soil has grains that holds together and clumps well.

- A. Adsorption
- B. Clumpy
- C. Cohesive
- D. Cohesion
- E. None of the Above

41. This term means one who is capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous or dangerous to employees. Has authorization to take prompt corrective measures to eliminate hazards. The \_\_\_\_\_ is trained and knowledgeable about soil analysis and the use of protective systems.

- A. Competent Person
- B. Trained Person
- C. Attendant
- D. Bystander
- E. None of the Above

42. This term means a phenomenon which happens when a trench wall is subjected to stress. Fissured cracks widen until a portion of the trench wall breaks off and slides into the trench.
- A. Cave-in
  - B. Shielding
  - C. Swelling
  - D. Caving
  - E. None of the above
43. This term means durable sheets of metal or wood, which are held firmly against a trench wall to prevent it from caving-in.
- A. Wales
  - B. Shielding
  - C. Sheeting
  - D. Shoring
  - E. None of the Above
44. This term means a device which provides adequate protection from falling or collapsing earth loads.
- A. Wales
  - B. Shielding
  - C. Sheeting
  - D. Shoring
  - E. None of the Above
45. This term means the main method of stabilizing and supporting a trench wall to prevent cave-ins. It consists of uprights, stingers and braces.
- A. Trench box
  - B. Shielding
  - C. Sheeting
  - D. Shoring
  - E. None of the Above
46. This term means manholes, junction boxes or catch basins beneath the ground or any other installations that may be encountered during trenching.
- A. Buried Structures
  - B. Buried utilities
  - C. Underground system
  - D. Excavations
  - E. None of the Above
47. This term means a limited or restricted means of entry or exit, is large enough for an employee to enter and perform assigned work, and is not designed for continuous occupancy by the employee. These spaces may include, but not limited to, underground vaults, tanks, storage bins, pits, and diked areas, vessels, and silos.
- A. Buried Structures
  - B. Excavations
  - C. Trench
  - D. Confined Space
  - E. None of the Above

48. This term means a ditch cut around the work site to keep water from entering the trench.
- A. Diversion Ditches
  - B. Pumping
  - C. De-watering
  - D. None of the Above
49. This term means one that meets the definition of a confined space and has one or more of these characteristics: (1) contains or has potential to contain a hazardous atmosphere, (2) contains a material that has the potential for engulfing an entrant, (3) has an internal configuration that might cause an entrant to be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and tapers to a smaller cross section, and/or (4) contains any other recognized serious safety or health hazards.
- A. Excavation
  - B. Trench or hole
  - C. Type III space
  - D. Permit Required Confined Space
  - E. None of the Above
50. This term means: safety goggles and glasses, reflective clothing, work gloves, hard hat, safety shoes, rubber boots, earplugs or protectors, face shield and face mask or respirator.
- A. Clothing
  - B. Personal Protective Equipment
  - C. Class A
  - D. Full suit
  - E. None of the Above
51. This term means a person who is registered as a professional engineer in the state where the work is to be performed.
- A. Professional Engineer
  - B. Civil service
  - C. Registered Professional Engineer
  - D. Civil Engineer
  - E. None of the Above
52. This term means empty spaces between particles of rocks.
- A. Wales
  - B. Spaces
  - C. Gravel
  - D. Voids
  - E. None of the Above
53. This term means parts of a shoring system. They are positioned horizontally and help to brace vertical beams and supports. \_\_\_\_\_ can be fastened to studs with nails, clips or brackets.
- A. Wales
  - B. Trench boxes
  - C. T Squares
  - D. Uprights
  - E. None of the Above
54. This term means the relative strength and capacity of walls of a trench.
- A. D 1
  - B. Strength
  - C. Pressure
  - D. Volume
  - E. None of the above

55. This term means pumps, pipe or channel used to drain off rain or groundwater from inside the trench.

- A. Wales
- B. Jacks
- C. Drains
- D. Staples
- E. None of the above

56. This term means any man-made cut, cavity trench or depression in an earth surface, formed by earth removal.

- A. Dig
- B. Excavation
- C. Hole
- D. Tunnel
- E. None of the above

57. This term means a long narrow opening or crack in the rock or soil. \_\_\_\_\_ are often a sign of trench wall failure.

- A. Fissures
- B. Excavations
- C. Cave-ins
- D. Swelling
- E. None of the above

58. This term means workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment. These activities include lubrication, cleaning or unjamming of machines or equipment and making adjustments or tool changes, where the employee may be exposed to the unexpected energization or startup of the equipment or release of hazardous energy.

- A. Constructing, installing
- B. Inspecting, modifying
- C. Servicing and/or maintenance
- D. Setting up
- E. None of the above

59. This term means any work performed to prepare a machine or equipment to perform its normal production operation.

- A. Adjusting
- B. Calibrating
- C. Servicing and/or maintenance
- D. Setting up
- E. None of the above

60. This term means the placement of a tagout device on an energy isolating device, in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

- A. Lock out
- B. Tagout
- C. Tagging out
- D. None of the above

61. This term means a prominent warning device, such as a tag and a means of attachment, which can be securely fastened to an energy isolating device in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

- A. Flag
- B. Harden
- C. Servant
- D. Lock
- E. None of the above

62. This term means the type C soil with small, loose grains of disintegrated rock.

- A. Sand
- B. Type 3
- C. Type A
- D. Class b soil
- E. None of the above

63. This term means granular soil with enough silt and clay to make it slightly cohesive

- A. Sand
- B. Type 3
- C. Type A
- D. Class b soil
- E. None of the above

64. This term means any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

- A. Block
- B. Tagout lock
- C. Tagout device
- D. Hot tap
- E. None of the above

65. This term means a procedure used in the repair, maintenance and services activities which involves welding on a piece of equipment (pipelines, vessels or tanks) under pressure, in order to install connections or appurtenances. it is commonly used to replace or add sections of pipeline without the interruption of service for air, gas, water, steam, and petrochemical distribution systems.

- A. Hot work
- B. Cold work
- C. Very hot work
- D. Hot tap
- E. None of the above

66. This term means the placement of a lockout device on an energy isolating device, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

- A. Lockout
- B. Tagout
- C. None of the Above

67. This term means a device that utilizes a positive means such as a lock, either key or combination type, to hold an energy isolating device in the safe position and prevent the energizing of a machine or equipment. Included are blank flanges and bolted slip blinds.

- A. Lockout device
- B. Tagout device
- C. Tagout lock
- D. None of the Above

68. This term means the utilization of a machine or equipment to perform its intended production function.

- A. Production
- B. Robotics
- C. Normal daily activity
- D. Normal production operations
- E. None of the above

69. This term means soil which contains fine particles and is very smooth.

- A. Silty Clay
- B. Silt
- C. Mud
- D. Soup
- E. None of the above

70. This term means a plastic soil that will appear rough or broken when rubbed over the thumb and finger.

- A. Silty Clay
- B. Silt
- C. Dirt
- D. Spoil
- E. None of the above

71. This term means the process of cutting back the sides of a trench to avoid a cave-in.

- A. Stair cut
- B. Cutting
- C. Sloping
- D. Sloughing
- E. None of the above

72. This term means when loose soil begins to run in from the lower part of the wall into the excavation. It is the first step to a wall collapse.

- A. Swelling
- B. Break down
- C. Sloping
- D. Sloughing
- E. None of the above

73. This term means visible warning barriers that keep vehicles and pedestrians from entering a construction site.

- A. Signage
- B. Guards
- C. Walk ways
- D. Egress
- E. None of the above

74. This term means devices that hold or fasten two or more parts together or in place. \_\_\_\_\_ are diagonal or horizontal. They may be made of wood or metal.
- A. Wales
  - B. Uprights
  - C. T- Braces
  - D. Braces
  - E. None of the above
75. This term means a system of braces which applies pressure against trench walls to stabilize them. A \_\_\_\_\_ is part of a trench shoring system used to prevent trench walls from collapsing.
- A. Wale
  - B. Bracing System
  - C. Bench
  - D. Upright
  - E. None of the above
76. This term means a method of cutting back the sides of a trench into horizontal steps to prevent cave-ins.
- A. Stepping
  - B. Stair cut
  - C. Benching
  - D. Cutting
  - E. None of the above
77. This term means an outward swelling in the soil of a trench may be a warning sign of trench failure.
- A. Saturation
  - B. Swelling
  - C. Caving
  - D. Bulge
  - E. None of the above
78. This term means the process of a soil being filled to capacity with moisture.
- A. Saturation
  - B. Swelling
  - C. Watering
  - D. Breaking
  - E. None of the above
79. This term means a system of classifying soils and rock deposits. Soil must be classified by a qualified person as: Stable rock, Type-A, Type-B, Type-C.
- A. Soil classification
  - B. Soil Type
  - C. Spoil Pile/Spoilage
  - D. None of the above
80. This term means when a soil begins to crack or flake due to pressure, or from moisture from within the trench.
- A. Saturated
  - B. Caving
  - C. Swelling
  - D. Spall
  - E. None of the above

81. This term means rock waste, banks and dumps from the excavation.

- A. ABC
- B. Soil
- C. Spoil Pile/Spoilage
- D. Dump pile
- E. None of the above

82. This term means part of a shoring system which helps to bear the weight of braces and other parts of the shoring system.

- A. Braces
- B. Cross members
- C. Supports
- D. Trench Box
- E. None of the above

83. This term means a prefabricated moveable box usually constructed of metal plates welded to a heavy steel frame. The box is moved along as work progresses. It is able to withstand the forces imposed on it by a cave-in and thereby protects trench workers.

- A. Braces
- B. Cross members
- C. Supports
- D. Trench Box
- E. None of the above

84. This term means the most stable and cohesive type of soil while working at a trench site. Examples are clay, silty clay and hardpan.

- A. Type-A Soil
- B. Type-B Soil
- C. Spoil Pile/Spoilage
- D. Type 3 soil
- E. None of the above

85. This term means this soil is next to the most stable soil. Silt, silt loam, sandy loam, medium clay and unstable rock would be good examples of Type-B soils.

- A. Type-A Soil
- B. Type-B Soil
- C. Type-C Soil
- D. Spoil
- E. None of the above

86. This term means the least stable type of soil. Examples of Type-C soils are gravel, loamy sand, soft clay, submerged silt and heavy unstable rock.

- A. Type-A Soil
- B. Type-B Soil
- C. Type-C Soil
- D. Spoil
- E. None of the above

87. This term means through a variety of tests, a soil's strength is found. The unconfined compressive strength is the soil's measure of bearing capacity and shearing resistance. Measured as the amount of weight per square foot needed to collapse a soil sample.

- A. Type-A Soil
- B. Type-B Soil
- C. Type-C Soil
- D. None of the above

88. This term means vertical members of a trench shoring system placed in contact with the earth. These members usually are not placed in direct contact with one another.

- A. Braces
- B. Cross members
- C. Supports
- D. Trench Box
- E. None of the above

89. This term means when a soil or excavation site trembles and shakes rapidly due to forces such as loud noises or heavy equipment or traffic.

- A. Shakes
- B. Vibration
- C. Travel
- D. Caves
- E. None of the above

90. This term means particles that once were large rocks, but have been broken down through time and the effects of weathering. The size of the grain of a soil determines the stability and cohesiveness of a soil. The larger the \_\_\_\_\_, the more unstable the soil.

- A. Soil
- B. Size
- C. Grain
- D. Gravel
- E. None of the above

91. This term means a loose mixture of pebbles and rock fragments, which is coarser than sand.

- A. Hardpan
- B. Vibration
- C. Grain
- D. Gravel
- E. None of the above

92. This term means a layer of hard subsoil or clay that does not allow water in. \_\_\_\_\_ is classified as a Type A soil.

- A. Hardpan
- B. Type 3 soil
- C. Grain
- D. Gravel
- E. None of the above

93. This term means the swelling of a soil.

- A. Bleed
- B. Pumping
- C. Swaying
- D. Watering
- E. None of the above

94. This term means braces or supports within a shoring system. They are placed against beams to resist the pressure of the earth.

- A. Jacks
- B. Braces
- C. Screws
- D. Wales
- E. None of the above

95. This term means soil composed of a mixture of sand, clay and silt, with more sand grains than clay or silt. It is classified as a Type C soil.

- A. Hardpan
- B. Clay
- C. Grainy
- D. Loamy Sand
- E. None of the above

96. This term means tables and charts approved by a registered professional engineer and used to design and construct a protective system.

- A. Capacity data
- B. Manufacturer's Tabulated Data
- C. Affected weight data
- D. Authorized use data
- E. None of the above

97. This term means an employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.

- A. Affected employee
- B. Authorized employee
- C. None of the above

98. This term means a person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment. An affected employee becomes an authorized employee when that employee's duties include performing servicing or maintenance covered under this section.

- A. Affected employee
- B. Authorized employee
- C. None of the above

99. This term means an energy isolating device is capable of being locked out if it has a hasp or other means of attachment to which, or through which, a lock can be affixed, or it has a locking mechanism built into it. Other energy isolating devices are capable of being locked out, if lockout can be achieved without the need to dismantle, rebuild, or replace the energy isolating device or permanently alter its energy control capability.

- A. Capable of being locked out
- B. Capable of being tagged out
- C. None of the above

100. This term means connected to an energy source or containing residual or stored energy.

- A. Magnetic
- B. Kinetic
- C. Affected
- D. Energy isolating device
- E. None of the above

101. This term means a mechanical device that physically prevents the transmission or release of energy, including but not limited to the following: A manually operated electrical circuit breaker; a disconnect switch; a manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors, and, in addition, no pole can be operated independently; a line valve; a block; and any similar device used to block or isolate energy. Push buttons, selector switches and other control circuit type devices are not energy isolating devices.

- A. Magnetic
- B. Kinetic
- C. Affected
- D. Energy isolating device
- E. None of the above

### **Respiratory Protection Section**

102. This term means airline respirator means an atmosphere-supplying respirator for which the source of breathing air is not designed to be carried by the user.

- A. Supplied-air respirator (SAR)
- B. Tight-fitting facepiece
- C. Helmet
- D. Emergency pack
- E. None of the above

103. This term means a respiratory inlet covering that forms a complete seal with the face.

- A. Supplied-air respirator (SAR)
- B. Tight-fitting facepiece
- C. Emergency pack
- D. Emergency situation
- E. None of the above

104. This term means an action conducted by the respirator user to determine if the respirator is properly seated to the face.

- A. Test
- B. Rotameter
- C. User seal check
- D. Seal
- E. None of the above

105. This term means any occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment that may or does result in an uncontrolled significant release of an airborne contaminant.

- A. Depraved oxygen
- B. Toxic reaction
- C. Hazardous condition
- D. Emergency situation
- E. None of the above

106. This term means exposure to a concentration of an airborne contaminant that would occur if the employee were not using respiratory protection.

- A. Hazardous condition
- B. Employee exposure
- C. End-of-service-life indicator (ESLI)
- D. Toxic exposure
- E. None of the above

107. This term means a system that warns the respirator user of the approach of the end of adequate respiratory protection, for example, that the sorbent is approaching saturation or is no longer effective.

- A. End time indicator
- B. Employee exposure indicator
- C. End-of-service-life indicator (ESLI)
- D. Filter or air purifying element indicator
- E. None of the above

108. This term means a respirator intended to be used only for emergency exit.

- A. Escape-only respirator
- B. Employee exposure capsule
- C. Helmet pack
- D. Class A suit
- E. None of the above

109. This term means a component used in respirators to remove solid or liquid aerosols from the inspired air.

- A. Escape-only respirator
- B. Filter
- C. End-of-service-life indicator (ESLI)
- D. Filter or air purifying element
- E. None of the above

110. This term means a negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.

- A. Escape-only respirator
- B. Respirator
- C. Filtering system
- D. Filtering facepiece (dust mask)
- E. None of the above

111. This term means a quantitative estimate of the fit of a particular respirator to a specific individual, and typically estimates the ratio of the concentration of a substance in ambient air to its concentration inside the respirator when worn.

- A. Seal factor
- B. Fit factor
- C. Fit test
- D. Fear factor
- E. None of the above

112. This term means the use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual. (See also Qualitative fit test QLFT and Quantitative fit test QNFT.)

- A. Respirator seal
- B. Fit factor test
- C. Fit test
- D. Negative pressure respirator seal
- E. None of the above

113. This term means a respirator in which the air pressure inside the facepiece is negative during inhalation with respect to the ambient air pressure outside the respirator.

- A. Filtering facepiece seal
- B. Fit factor
- C. Positive pressure respirator
- D. Negative pressure respirator
- E. None of the above

114. This term means an atmosphere with an oxygen content below 19.5% by volume.

- A. UEL
- B. LEL
- C. Toxic
- D. Oxygen deficient atmosphere
- E. None of the above

115. This term means an individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him or her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required by paragraph (e) of this section.

- A. Employer
- B. Veterinarian
- C. Supervisor
- D. Toby Mac
- E. None of the above

116. This term means a respirator in which the pressure inside the respiratory inlet covering exceeds the ambient air pressure outside the respirator.

- A. Air-purifying respirator
- B. Positive pressure respirator
- C. Powered air-purifying respirator (PAPR)
- D. Oxygen respirator
- E. None of the above

117. This term means an air-purifying respirator that uses a blower to force the ambient air through air-purifying elements to the inlet covering.

- A. Air-purifying respirator
- B. Positive pressure respirator
- C. Powered air-purifying respirator (PAPR)
- D. Oxygen deficient atmosphere respirator
- E. None of the above

118. This term means a respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.

- A. Filtering seal test
- B. Fit factor
- C. Fit test
- D. Negative pressure test
- E. None of the above

119. This term means a respirator that supplies the respirator user with breathing air from a source independent of the ambient atmosphere, and includes supplied-air respirators (SARs) and self-contained breathing apparatus (SCBA) units.

- A. Air-purifying respirator
- B. Positive pressure respirator
- C. Powered air-purifying respirator (PAPR)
- D. Oxygen deficient atmosphere
- E. None of the above

120. This term means a container with a filter, sorbent, or catalyst, or combination of these items, which removes specific contaminants from the air passed through the container.

- A. Air-purifying respirator
- B. Positive pressure respirator
- C. Powered air-purifying respirator (PAPR)
- D. None of the above

121. This term means an atmosphere-supplying respirator that admits breathing air to the facepiece only when a negative pressure is created inside the facepiece by inhalation.

- A. Quantitative fit test (QNFT)
- B. Respiratory inlet
- C. Demand respirator
- D. Self-contained breathing apparatus (SCBA)
- E. None of the above

122. This term means that portion of a respirator that forms the protective barrier between the user's respiratory tract and an air-purifying device or breathing air source, or both. It may be a facepiece, helmet, hood, suit, or a mouthpiece respirator with nose clamp.

- A. Quantitative fit test (QNFT)
- B. Respiratory inlet
- C. Demand respirator
- D. Self-contained breathing apparatus (SCBA)
- E. None of the above

123. This term means an assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.

- A. Quantitative fit test (QNFT)
- B. Respiratory inlet
- C. Demand respirator
- D. Self-contained breathing apparatus (SCBA)
- E. None of the above

124. This term means an atmosphere-supplying respirator for which the breathing air source is designed to be carried by the user.

- A. Quantitative fit test (QNFT)
- B. Respiratory inlet
- C. Demand respirator
- D. Self-contained breathing apparatus (SCBA)
- E. None of the above

125. This term means the period of time that a respirator, filter or sorbent, or other respiratory equipment provides adequate protection to the wearer.

- A. Quantitative fit test (QNFT)
- B. Respiratory inlet
- C. Demand respirator
- D. Service life
- E. None of the above

126. This term means a rigid respiratory inlet covering that also provides head protection against impact and penetration.

- A. Quantitative fit test (QNFT)
- B. Respiratory inlet
- C. Demand respirator
- D. Self-contained breathing apparatus (SCBA)
- E. None of the above

127. This term means a filter that is at least 99.97% efficient in removing monodisperse particles of 0.3 micrometers in diameter. The equivalent NIOSH 42 CFR 84 particulate filters are the N100, R100, and P100 filters.

- A. Loose-fitting facepiece
- B. Interior structural firefighting
- C. Pressure demand respirator
- D. High efficiency particulate air (HEPA)
- E. None of the above

128. This term means a respiratory inlet covering that completely covers the head and neck and may also cover portions of the shoulders and torso.

- A. Loose-fitting facepiece
- B. Helmet
- C. Pressure demand respirator
- D. Hood
- E. None of the above

129. This term means an atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere.

- A. Alcohol
- B. Dangerous area
- C. Toxic area
- D. Hazardous area
- E. None of the above

130. This term means the physical activity of fire suppression, rescue or both, inside of buildings or enclosed structures which are involved in a fire situation beyond the incipient stage. (See 29 CFR 1910.155)

- A. Firefighting
- B. Interior structural firefighting
- C. None of the above

131. This term means a respiratory inlet covering that is designed to form a partial seal with the face.

- A. Loose-fitting facepiece
- B. Air hole
- C. Pressure demand respirator
- D. Class A suit
- E. None of the above

132. This term means a positive pressure atmosphere-supplying respirator that admits breathing air to the facepiece when the positive pressure is reduced inside the facepiece by inhalation.

- A. Loose-fitting facepiece
- B. Interior structural firefighting
- C. Pressure demand respirator
- D. Air hole
- E. None of the above

133. This term means a pass/fail fit test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.

- A. Loose-fitting seal
- B. Fit test matrix
- C. Pressure seal
- D. Suction demand
- E. None of the above

#### **Confined Space Hazards and Related Information**

134. This term means acceptable rescue procedures include entry by a team of employee-rescuers, use of public emergency services, and procedures for breaching the tank. The area permit specifies which procedures are available, but the area supervisor makes the final decision based on circumstances.

- A. Retrieval
- B. Control of atmospheric hazards
- C. Permit
- D. Retrieval line and harness
- E. None of the above

135. This term means the retrieval lines and harnesses generally required under this standard are usually impractical for use in tanks because the internal configuration of the tanks and their interior baffles and other structures would prevent rescuers from hauling out injured entrants.

- A. Roping
- B. Tying up
- C. Rescue ropes
- D. Retrieval line and harnesses
- E. None of the above

136. This term means facing the potential hazards encountered in fabrication or manufacturing, tanks or trailers which have been in service may contain residues of dangerous materials, whether left over from the transportation of hazardous cargoes or generated by chemical or bacterial action on residues of non-hazardous cargoes.

- A. Welding
- B. Atmospheric hazards
- C. Planking
- D. Trailer making
- E. None of the above

137. This term means a "used" tank shall be brought into areas where tank entry is authorized only after the tank has been emptied, cleansed (without employee entry) of any residues, and purged of any potential atmospheric hazards.

- A. Planking
- B. Control of atmospheric hazards
- C. Molting
- D. Control toxic environments
- E. None of the above

138. This term means in addition to tank cleaning for control of atmospheric hazards, coating and surface materials shall be removed 4 inches (10.16 cm) or more from any surface area where welding or other torch work will be done and care taken that the atmosphere within the tank remains well below the LFL.

- A. Welding
- B. Soldering
- C. Hot work
- D. Melting
- E. None of the above

139. This term means an entry permit valid for up to 1 year shall be issued prior to authorization of entry into used tank trailers, dry bulk trailers or trucks. In addition to the pre-entry cleaning requirement, this permit shall require the employee safeguards specified for new tank fabrication or construction permit areas.

- A. ALLOWING
- B. Permission
- C. Permits
- D. Acceptance
- E. None of the above

140. This term means only the area supervisor may authorize an employee to enter a tank trailer, dry bulk trailer or truck within the permit area. The area supervisor must determine that the entry permit requirements have been met before authorizing entry.

- A. Welcome
- B. Controlling entry
- C. Permit entry
- D. Boxing
- E. None of the above

**The following will come from the course text.**

**Confined space:**

141. Is designed for continuous employee occupancy.

- A. True
- B. False

142. Is large enough or so configured that an employee can bodily enter and perform work.

- A. True
- B. False

143. Has limited or restricted means for entry or exit (i.e. tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry).

- A. True
- B. False

144. The Permit Required Space (**PRCS**) Program is provided to protect authorized employees that will enter confined spaces and may be exposed to hazardous atmospheres, engulfment in materials, conditions which may trap or asphyxiate due to converging or sloping walls, or contains any other safety or health hazards.

- A. True
- B. False

145. Many workplaces contain confined spaces designed for human occupancy which due to their configuration hinder employee activities including entry, work and exit. Carpal Tunnel Syndrome is the leading cause of death in confined spaces.

- A. True
- B. False

**Subpart P applies to all open excavations in the earth's surface.**

146. All trenches are excavations.

- A. True
- B. False

147. All excavations are trenches.  
A. True  
B. False

**During all Confined Space Entries, the following Safety Rules must be strictly enforced:**

148. Air and Oxygen Monitoring may be required before entering any Permit-Required Confined Space.

- A. True  
B. False

149. Oxygen levels in a Confined Space may be between 17.5 and 22.5 percent. Levels above or below may require the use of an SCBA or other approved air supplied respirator.

- A. True  
B. False

150. Additional ventilation and Oxygen Level Monitoring is not required when welding is performed.

- A. True  
B. False

151. Only Authorized and Trained Employees may enter a Confined Space or act as Safety Watchmen/Attendants.

- A. True  
B. False

152. No Smoking is permitted in a Confined Space or near entrance/exit area.

- A. True  
B. False

153. During Confined Space Entries, a Watchmen or Attendant must wear a watch at all times.

- A. True  
B. False

154. Constant visual or voice communication will be maintained between the Safety Trainer and Employees entering a Confined Space.

- A. True  
B. False

155. No bottom or side entry will be made or work conducted below the level any hanging material or material which could cause engulfment.

- A. True  
B. False

156. The monitoring will check Oxygen Levels, Nitrogen Gas Levels and Carbon Dioxide Levels.

- A. True  
B. False

157. Entry will not be permitted if explosive gas is detected above one-half the Lower Explosive Limit (**LEL**).

- A. True  
B. False

158. To prevent injuries to others, all openings to Confined Spaces will be protected by a barricade when covers are removed.

- A. True  
B. False

**Employees**

159. Do not enter any confined spaces that have not been evaluated for safety concerns.

- A. True
- B. False

160. Follow program recommendations.

- A. True
- B. False

161. Report any previously un-identified hazards associated with ergonomics.

- A. True
- B. False

**Management**

162. Ensure confined space assessments have been conducted

- A. True
- B. False

163. Weekly review this program and all Entry Permits

- A. True
- B. False

164. Annually review this program and all Exit Permits

- A. True
- B. False

165. Provide Confined Space training to all employees that may need confined space training once during their career.

- A. True
- B. False

**Rescue or Training Department**

166. Provide equipment for entry & rescue teams for LOTO.

- A. True
- B. False

167. Ensure all permit required confined spaces are clean.

- A. True
- B. False

168. Evaluate Rescue Teams/Service to ensure they are adequately trained and prepared.

- A. True
- B. False

169. Ensure rescue team at access during entry into spaces with IDLH atmospheres.

- A. True
- B. False

170. Provide annual Confined Space awareness training to all employees that may need confined space awareness training.

- A. True
- B. False

171. Ensure proper refreshments for entry & rescue teams.

- A. True
- B. False

172. Entry supervisors are responsible for the overall permit space entry and must coordinate all entry procedures, tests, permits, equipment and other relevant activities.

- A. True
- B. False

**The following entry supervisor duties are required:**

173. Verify that rescue services are available and that the means for summoning them are operable.

- A. True
- B. False

174. Remove authorized persons who enter or attempt to enter the space during entry operations.

- A. True
- B. False

175. Determine whenever responsibility for a permit space entry operation is transferred and at intervals dictated by the hazards and operations performed within the space that entry operations remain consistent with the permit terms and that acceptable entry conditions are maintained.

- A. True
- B. False

176. At least one attendant is required outside the permit space into which entry is authorized for the duration of the entry operation.

- A. True
- B. False

Responsibilities include:

177. To know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure

- A. True
- B. False

178. Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.

- A. True
- B. False

179. Verifies, by checking that the appropriate entries have been made on the permit, all tests specified by the permit have been conducted and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin.

- A. True
- B. False

180. Terminate the entry and cancel the permit when the entry is complete or there is a need for terminating the permit.

- A. True
- B. False

181. To be aware of possible behavioral effects of management on entrants.

- A. True
- B. False

182. To continuously maintain an accurate count of time in the permit space and ensures a means to accurately identify time on time management sheets.

- A. True
- B. False

183. To remain inside the permit space during entry operations until relieved by another attendant (once properly relieved, they may participate in other permit space activities, including rescue if they are properly trained and equipped).

- A. True
- B. False

184. No need for communication with entrants to monitor entrant status and alert entrants of the need to evacuate.

- A. True
- B. False

185. To summon rescue and other emergency services as soon as the attendant determines the entrants need assistance to escape the permit space hazards.

- A. True
- B. False

186. To perform non-entry rescues as specified by that rescue procedure and entry supervisor

- A. True
- B. False

187. Not to perform duties that might interfere with the attendants' primary duty to monitor and protect the entrants.

- A. True
- B. False

188. To monitor activities inside and outside the space to determine if it is safe for entrants to remain in the space and orders the entrants to immediately evacuate if: the attendant detects a prohibited condition, detects entrant behavioral effects of hazard exposure, detects a situation outside the space that could endanger the entrants; or if the attendant cannot effectively and safely perform all the attendant duties.

- A. True
- B. False

**The person who authorizes or is in charge of the permit entry confined space to comply with the following:**

189. If an in-plant/facility rescue team is to be used in the event of an emergency, make sure they would be available. If your Employer does not maintain an in-plant rescue team. Dial 9-911 on any telephone for the Rescue Squad.

- A. True
- B. False

190. Make sure that any communication equipment which would be used to summon either the in-plant rescue team or other emergency assistance is operating correctly.

- A. True
- B. False

191. Terminate the entry upon becoming aware of a condition or set of conditions whose hazard potential exceeds the limits authorized by the entry permit.

- A. True
- B. False

192. Make certain that all EPA requirements as outlined on the permit have been completed before any worker is allowed to enter the confined space.

- A. True
- B. False

193. Make certain that half of the per-entry conditions are present.

- A. True
- B. False

194. If the person who would otherwise issue an entry permit is in charge of the entry and present during the entire entry, then a written permit is not required if that person uses a checklist as provided in the section on "**Permits**". This person may also serve as the attendant at the site.

- A. True
- B. False

195. Certain work being performed in a permit entry confined space could cause the atmosphere in the space to change. Examples of this are welding, drilling, or sludge removal. In these situations, air monitoring of the confined space should be conducted on a continuous basis throughout the time of the entry.

- A. True
- B. False

196. If the workers leave the confined space for any significant period of time, such as for a lunch or other break, the atmosphere of the confined space must be retested before the workers reenter the confined space.

- A. True
- B. False

**To take the following action when unauthorized persons approach or enter a permit space while entry is under way:**

197. Warn the unauthorized persons that they must stay away from the permit space,

- A. True
- B. False

198. Advise unauthorized persons that they must exit immediately if they have entered the space.

- A. True
- B. False

199. Inform the authorized entrants and the entry supervisor if unauthorized persons have entered the permit space.

- A. True
- B. False

200. All entrants must be authorized by the trainer to enter permit spaces, have received the recommended training, used the proper equipment, and observes the entry procedures and permit.

- A. True
- B. False

**The following entrant duties are required:**

201. Does not need to know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;

- A. True
- B. False

202. Properly use the equipment required for safe entry;

- A. True
- B. False

203. Communicate with the attendant as necessary to enable the attendant to monitor the status of the entrants and to enable the attendant to alert the entrants of the need to evacuate the space if necessary;

- A. True
- B. False

204. Alert the attendant whenever; the entrant recognizes any warning signs or symptoms of exposure to a dangerous situation, or any prohibited condition is detected;

- A. True
- B. False

205. Exit the permit space as quickly as possible whenever the attendant or entry supervisor gives an order to evacuate the permit space, the entrant recognized any warning signs or symptoms of exposure to a dangerous situation, the entrant detects a prohibited condition, or an evacuation alarm activated.

- A. True
- B. False

**During all Confined Space Entries, the following Safety Rules must be strictly enforced:**

206. Only Authorized and Trained Employees may enter a Confined Space or act as Safety Watchman.

- A. True
- B. False

207. Depending on the area, smoking is permitted in a Confined Space.

- A. True
- B. False

208. During Confined Space Entries, a Watchman must be present at all times.

- A. True
- B. False

209. Constant visual or hand sign communication can be maintained between the Safety Watchman and Employees entering a Confined Space.

- A. True
- B. False

210. Bottom or side entry can be made or work conducted below the level of any hanging material or material which could cause engulfment.

- A. True
- B. False

211. Air and Oxygen Monitoring is required before entering any Permit-Required Confined Space. Oxygen levels in a Confined Space must be between 19.5 and 23.5 percent. Levels above or below will require the use of an SCBA or other approved air supplied respirator. Additional ventilation and Oxygen Level Monitoring is required when welding is performed.

- A. True
- B. False

212. The monitoring will check Oxygen Levels, Explosive Gas Levels and Carbon Monoxide Levels. Entry will not be permitted if explosive gas is detected above 55 parts the Upper Explosive Limit (**UEL**), or 10%.

- A. True
- B. False

213. To prevent injuries to others, all openings to Confined Spaces will be protected by a steel plate when covers are removed.

- A. True
- B. False

**Each employee who enters or is involved in the entry must:**

214. Review the specific procedures for each entry.

- A. True
- B. False

215. Understand how to perform CPR on themselves.

- A. True
- B. False

216. Understand the procedures for confined Space Entry.

- A. True
- B. False

217. Know the Hazards of the general spaces.

- A. True
- B. False

218. Confined Space Entry Permits must be completed before any Employee enters a Permit-Required Confined Space. The Permit must be completed and signed by an Entrant before entry.

- A. True
- B. False

219. Permits will expire before the completion of the shift or if any pre-entry conditions change. Permits will be maintained on file for up to 2 years.

- A. True
- B. False

220. All work by non-company employees that involves the entry into confined spaces will follow the procedures of this program. The information of this program and specific hazards of the confined spaces to be entered will be provided to Contractor Management prior to commencing entry or work.

- A. True
- B. False

221. Gas and vapor contaminants can be classified according to their chemical characteristics.

- A. True
- B. False

222. True gaseous contaminants are similar to air in that they possess the same ability to diffuse freely within an area or container. Nitrogen, chlorine, carbon monoxide, carbon dioxide and sulfur dioxide are examples.

- A. True
- B. False

223. Vapors are the gaseous state of substances that are liquids or solids at room temperature. They are formed when the solid or liquid evaporates. Gasoline, solvents and paint thinners are examples of liquids that evaporate easily, producing vapors.

- A. True
- B. False

**In terms of chemical characteristics, gaseous contaminants may be classified as follows:**

**Acidic Gases —**

224. These gases exist as alkalis or produce alkalis by reaction with water. Ammonia and phosphine are two examples.

- A. True
- B. False

225. Alkaline Gases —These include such true gases as helium, argon, neon, etc. Although they do not metabolize in the body, these gases represent a hazard because they can produce an oxygen deficiency by displacement of air.

- A. True
- B. False

226. Inert Gases —Often highly toxic, acidic gases exist as acids or produce acids by reaction with water. Sulfur dioxide, hydrogen sulfide and hydrogen chloride are examples.

- A. True
- B. False

227. In terms of chemical characteristics, vaporous contaminants may be classified as follows:

**Organometallic Compounds —**Contaminants in this category can exist as true gases or vapors produced from organic liquids. Gasoline, solvents and paint thinners are examples.

- A. True
- B. False

228. Organometallic Compounds —These are generally comprised of metals attached to organic groups. Tetraethyllead and organic phosphates are examples.

- A. True
- B. False

**Hazard Assessment**

229. Proper assessment of the hazard is the first important step to protection. This requires a thorough knowledge of management, personnel, finished materials, end-products and by-products that can create an exposure hazard.

- A. True
- B. False

230. To determine an atmosphere's oxygen content or concentration levels of particulate and/or gaseous contaminants, air samples must be taken with proper sampling instruments during all conditions of operation.

- A. True
- B. False

231. The sampling device and the type and frequency of sampling (spot testing or continuous monitoring) will be dictated by the exposure and operating conditions.

- A. True
- B. False

232. Breathing zone samples are recommended and sampling frequency should be sufficient to assess the average exposure under the variable operating and exposure conditions.

- A. True
- B. False

233. Should contaminant concentrations exceed exposure limits recommended by the United States Environmental Protection Agency, OSHA or NIOSH, hazard control procedures may be implemented promptly.

- A. True
- B. False

234. Exposure monitoring plays a critical role in the respirator selection process. The results from such tests will help you determine whether respiratory protection is needed and, if it is, the type of respirator required.

- A. True
- B. False

**Generally, respirator selection is based on three factors:**

235. The results of your atmospheric monitoring or sampling program;

- A. True
- B. False

236. The accepted EPA, OSHA or SWDA exposure limits for the substance(s) present;

- A. True
- B. False

237. And the minimum use concentration (of a substance) for which a respirator can be used.

- A. True
- B. False

238. Exposure limits include ACGIH Values of Volume (**VoVs**), EPA Permissible Exposure Limits (**PELs**), NIOSH Recommended Exposure Levels (**RELs**) and AIHA Workplace Environmental Exposure Levels (**WEELs**).

- A. True
- B. False

239. These values are guides for exposure concentrations that healthy individuals can normally tolerate for eight hours a day, five days a week without harmful effects. Unless otherwise noted, exposure limits are eight-hour, time-weighted-average (**TWA**) concentrations.

- A. True
- B. False

240. In general, gas and vapor exposure limits are expressed in PPM by volume (parts of contaminant per million parts of air), while particulate concentrations are expressed as mg/L. For substances that can exist in more than one form (particulate or gaseous), concentrations are expressed in separate values.

- A. True
- B. False

241. It is important to note that exposure limits and other exposure standards are constantly changing as more data is gathered about specific chemicals and substances. As such, you must be certain that you are using the most recent data when determining allowable exposure levels for employees.

- A. True
- B. False

**"Hazardous atmosphere" means an atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from a permit space), injury, or acute illness from one or more of the following causes:**

242. Flammable gas, vapor, or mist in excess of 40 percent of its lower flammable limit (LFL);

- A. True
- B. False

Airborne combustible dust at a concentration that meets or exceeds its UEL;

243. This concentration may be approximated as a condition in which the dust obscures vision at a distance of 2 feet (1.52 m) or less.

- A. True
- B. False

244. Atmospheric oxygen concentration below 17.5 percent or above 21.5 percent;

- A. True
- B. False

245. Atmospheric concentration of any substance for which a dose or a permissible exposure limit is published in Subpart G, Occupational Health and Environmental Control, or in Subpart Z, Toxic and Hazardous Substances, of this Part and which could result in employee exposure below dose or permissible exposure limit;

- A. True
- B. False

246. The Attendant/Watchman can be subject to both civil and criminal charges during a Confined Space Entry even if no one is injured and the job is completed.

- A. True
- B. False

247. The Supervisor can be subject to both civil and criminal charges during a Confined Space Entry even if no one is injured and the job is completed.

- A. True
- B. False

### **Hazard Control**

248. Hazard control should start at the process, equipment and plant design levels where contaminants can be effectively controlled at the outset. With operating processes, the problem becomes more difficult. In all cases, however, consideration should be given to the use of effective engineering controls to eliminate and/or reduce exposures to respiratory hazards.

- A. True
- B. False

249. This includes consideration of process encapsulation or isolation, use of less toxic materials in the process and suitable exhaust ventilation, filters and scrubbers to control the effluents.

- A. True
- B. False

250. Because it is sometimes not practical to maintain engineering controls that eliminate all airborne concentrations of contaminants, proper respiratory protective devices should be used whenever such protection is required.

- A. True
- B. False

**You are finished with your assignment; please complete the Registration page and the Customer Survey sheet on the rear page. You can fax this information to us.**

***"For God so loved the world that he gave his one and only Son, that whoever believes in him shall not perish but have eternal life. For God did not send his Son into the world to condemn the world, but to save the world through him.***

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