

INSTRUCTOR PRETEST-POSTTEST SOLUTIONS

1. Which of the following is correct about Right to Know?
 - A. A regulation designed to make information available about hazardous chemicals that are imported by employer
 - B. This regulation is designed to make information about hazardous chemicals that are present in work places available to exposed employees**
 - C. Only applies to large-sized companies
 - D. Only applies to the construction industry

2. Crystalline silica is a common mineral found in many naturally occurring and man-made materials used at construction sites, such as
 - A. Sand
 - B. Concrete
 - C. Brick
 - D. All of the above**

3. What serious disease is caused by exposure to respirable crystalline silica?
 - A. Salmonella
 - B. Tombosis
 - C. Silicosis**
 - D. Silica does not cause any serious disease

4. What is the procedure to determine how much silica dust is present at a worksite?
 - A. Sample the air**
 - B. Sample the blood
 - C. Sample the material
 - D. Sample the water

5. According to OSHA Silica Standard, which of the following best indicates that the level of respirable silica is too high?
 - A. Visible dust
 - B. Permissible Exposure Limit**
 - C. Eye irritation
 - D. Difficult breathing

6. According to the new Silica Standard, the average exposure to silica dust should not exceed a PEL of _____ $\mu\text{g}/\text{m}^3$ during a full 8-hour work shift, and the employer must comply with the standard if the action level (AL) is at or above of _____ $\mu\text{g}/\text{m}^3$
 - A. 100 and 10
 - B. 75 and 50
 - C. 50 and 25**
 - D. 25 and 30

7. When specified exposure controls methods presented in Table 1 of the standard are fully and properly implemented to eliminate or reduce silica dust hazards, the employers are not required to comply with the permissible exposure limit (PEL).
A. **True** B. False C. I don't know
8. When implementing wet methods to limit exposure to silica using electrical-powered equipment (e.g. saws, drills, grinders), water can be supplied to the equipment either from a pressurized portable water supply, or from a constant water source, such as a hose connected to a municipal water supply.
A. **True** B. False C. I don't know
9. Equipment manufacturing instructions for minimizing dust must be followed when using wet methods to limit exposure to silica. Manufacturer's instructions include
A. Water flow rates
B. Frequency for changing water
C. Equipment operating specifications and recommendations that apply to the specific equipment model including electrical fault protection
D. **All of the above**
10. With any type of vacuum system, employee protection from silica is only as good as the filter in the vacuum. The new Silica standard emphasize that a high-efficiency particulate air (HEPA) filter at least 99.97 percent efficient is critical to prevent the escape.
A. **True** B. False C. I don't know
11. Integrated Water Delivery Systems and Vacuum Dust collection systems are in the category of the engineering controls, whereas housekeeping and training are in the category of workplace controls
A. **True** B. False C. I don't know
12. Which of the following measures are recommended for Vacuum Dust Collection systems for optimal performance?
A. Keep the vacuum hose clear and free of debris, kinks and tight bends
B. Set up a regular schedule for filter cleaning and maintenance
C. Maintain the vacuum at peak performance to ensure adequate airflow through the shroud and ducts
D. **All of the above**
13. As a feasible housekeeping practice, employees should use compressed air instead of dry sweeping to remove silica dust buildup.
A. True **B. False** C. I don't know
14. If an employee must use a respirator as protection against silica dust, the respirator must be NIOSH approved, and should, per Table 1, have an assigned protection factor (APF) of at least _____.
A. **10 or 25** C. 75 or 100
B. 35 or 50 D. None of the above
15. If a task that generates silica exposure requires the use of respirators, employees must
A. Ensure that the respirator fits properly
B. Use the same make, model, style, and size of respirator with which the fit testing was conducted
C. Not have any facial hair
D. **All of the above is correct.**

16. According to the new OSHA Silica Standard, if an employer chooses to not follow the Specified Silica Exposure Controls approach by implementing Table 1
 - A. The employer can implement the Hazard Communication Standard
 - B. The employer must choose and implement the Alternative Silica Exposures Control approach
 - C. The employer can start collecting objective data
 - D. None of the above

17. If the TWA exposure calculations yield a workplace silica concentration of 40 ug/m³
 - A. The standard does not apply because it is below the PEL of 50ug/m³
 - B. The standard applies because it is above the AL of 25ug/m³
 - C. The standard applies because it is above the AL of 30ug/m³
 - D. None of the above

18. Under the Performance Option of Exposure Assessment, employers must conduct the exposure assessment
 - A. Before work begins
 - B. After the first 8 hours of work is completed
 - C. Once a week
 - D. Daily

19. Under the Scheduled Monitoring Option, if the initial monitoring shows exposures below the AL
 - A. The employer must repeat monitoring within six months
 - B. The employer must repeat monitoring within three months
 - C. The employer must repeat monitoring at the end of the first work shift
 - D. No further monitoring is required, as long as there are no anticipated changes in production, process, control equipment, personnel, or work practices that may potentially result in increased exposure to silica at or above the action level (AL).

20. Reassessment of silica exposures is not required
 - A. When a task is moved from an indoor to an outdoor location, or when a product is replaced with one that has lower silica content, keeping the same process.
 - B. When a task is moved from an outdoor to an indoor location, or when a product is replaced with one that has lower silica content, keeping the same process.
 - C. When the silica concentration is below the PEL of 50 ug/m³
 - D. Reassessment is always required regardless of the silica concentration

21. Employers must notify each affected employee of the results of exposure assessment
 - A. Within 10 working days of completing it
 - B. Within 5 working days of completing it
 - C. When respiratory protection is the recommended control strategy
 - D. There is no employee notification requirement in the new silica standard

22. When an exposure assessment reveals exposures above the PEL, the written notification must also describe the corrective action the employer is taking to reduce employee exposures to or below the PEL.
 - A. True
 - B. False
 - C. I don't know

23. According to the Hierarchy of Controls principle adopted by the OSHA Silica Standard in the Methods of Compliance section of the standard
- A. Respirators can be used instead of implementing engineering and workplace controls for reducing exposures
 - B. Respirators are not needed if feasible engineering and workplace controls are fully and effectively implemented even when the PEL is exceeded
 - C. Respirator use is allowed, in addition to implementing feasible engineering and workplace controls, only when they cannot reduce exposures to levels below PEL
 - D. Respirator use is not allowed, because respirators can create safety concerns when they interfere with workers' ability to hear, see, smell, and communicate
24. As applicable to silica exposure for abrasive blasting, the Methods of Compliance section of the standard cross-references the following other OSHA standard.
- A. Ventilation
 - B. Fall Protection
 - C. Hazard Communication
 - D. None of the above
25. The new OSHA Respirable Crystalline Silica Standard (CFR 29.1926.1153 will start to be enforced on the following date for the Construction Industry
- A. September 23, 2017
 - B. June 23, 2018
 - C. 2 years after effective date for employees exposed above PEL
 - D. None of the above