

Preventing Dust Explosions Quiz

Name: _____ Date: _____

Multiple Choice (circle the correct answer):

1. Which elements are required for a grain dust explosion to occur?
 - a. Combustible dust, dispersion, oxygen, ignition source, containment
 - b. Dispersion, combustible dust, Carbon Dioxide, ignition source
 - c. Oxygen, suppression system, dispersion, combustible dust
 - d. Containment, dispersion, nitrogen combustible dust

2. According to OSHA's Grain Handling Standard 1910.272, preventive maintenance certification records must include:
 - a. The date of inspection, name of person inspecting equipment, serial number or other equipment identifier
 - b. Date of inspection, name of facility manager, serial number, date of manufacture
 - c. Date of manufacture, date of installation, name of facility manager
 - d. Equipment speed, date of installation, date of inspection, name of facility manager

3. Grain dust explosion ignition sources may include:
 - a. Hot work, damaged grain, mineral oil application
 - b. Frictional heat from machine parts, hot work, faulty electrical equipment
 - c. Hot work, mineral oi application, faulty electrical equipment
 - d. Explosion suppression equipment, explosion venting, hot work

True or False:

4. _____ Class II hazardous locations are those that are hazardous due to the presence of combustible dust.

5. _____ OSHA's Grain Handling Standard (1910.272) requires that fabric dust filter collectors, which are a part of a pneumatic dust collection system, be equipped with a monitoring device that will indicate a pressure drop across the surface of the filter.

6. _____ OSHA's Grain Handling Standard (1910.272) requires a written housekeeping program that establishes the frequency and methods for removing fugitive grain dust on ledges, floors, equipment and exposed surfaces.

7. _____ OSHA's Grain Handling Standard (1910.272) requires that fugitive grain dust accumulations exceeding 1/16 inch within 35 feet of inside bucket elevators be removed immediately.

8. _____ According to OSHA's Grain Handling Standard (1910.272), grain and product spills are considered fugitive grain dust accumulations.

9. _____ According to OSHA's Grain Handling Standard (1910.272), an inside bucket elevator has the boot and more than 40% of the total leg height (above grade or ground level) inside the grain elevator structure.

10. _____ According to OSHA's Grain Handling Standard (1910.272), the employer is responsible for informing contractors performing work at the grain handling facility of known potential fire and explosion hazards related to the contractor's work and work area.

Quiz Key

1. A
2. A
3. B
4. True
5. True
6. True
7. False – 1/8 inch
8. False
9. False - (20%)
10. True