## Pre Knowledge Survey Key

1. Which of the following is not an element needed for a grain dust explosion:
   - a. Oxygen
   - b. **Saturation**
   - c. Ignition Source
   - d. Dispersion
   - e. Confinement

2. **T/F** Pressures from an explosion with corn dust can be greater than 100 psig.

3. Good housekeeping includes:
   - a. Vacuuming with proper equipment
   - b. Paying attention to “hidden areas”
   - c. Training all employees
   - d. Maintaining dust aspiration systems
   - e. All of the above

4. **T/F** Deflagration isolation is an option for dust explosion protection.

5. Which of the following are ways to reduce grain dust during unloading:
   - a. **Use cyclones, fabric filters, baffles, and deadboxes**
   - b. There is no good way to reduce dust during unloading
   - c. A closed receiving area so the wind can’t disturb the dust
   - d. Unload the grain slowly

6. **T/F** The recommended minimum spout slope for free flowing ingredients is 30 degrees.

7. Safety precautions for bucket elevators include:
   - a. Locating the bucket elevator inside the main structure
   - b. Dust tight with no venting to prohibit escape of dust
   - c. **Belt speed, alignment and bearing temperature sensors**
   - d. Explosion venting secured tightly to the leg

8. Suppression systems have to be inspected at minimum every:
   - a. Month
   - b. 2 months
   - c. **3 months**
   - d. 12 months

9. **T/F** Chemical isolation systems do not trigger with pressure.

10. Explosion Suppression systems can suppress an explosion within:
    - a. 20 seconds
    - b. 40 seconds
    - c. **80 seconds**
    - d. 120 seconds

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