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# **Tool Box Safety Talk # 39 09-22-2024.**

**Topic: Silica Dust Controls**

**What is Silica Dust?**

Silica is a mineral found in many construction materials, such as concrete, bricks, tiles, and stone. When these materials are cut, ground, or drilled, they release tiny silica dust particles into the air. These particles are so small that they can easily be inhaled and penetrate deep into the lungs.

**Health Hazards of Silica Dust**

Exposure to silica dust can cause several serious health issues:

* **Silicosis:** A lung disease that leads to scarring and stiffening of the lungs, making it difficult to breathe.
* **Lung Cancer:** Long-term exposure can increase the risk of lung cancer.
* **COPD:** Includes conditions like chronic bronchitis and emphysema, which cause breathing difficulties.

**Exposure Control Methods**

To protect ourselves from silica dust, we need to follow these control methods:

1. **Engineering Controls**
   * **Water Suppression:** Use water sprays to keep dust from becoming airborne.
   * **Local Exhaust Ventilation:** Use vacuum systems to capture dust at the source.
   * **Enclosed Cabs:** Use machinery with enclosed cabs and HEPA filters.
2. **Administrative Controls**
   * **Training:** Ensure all workers are trained on silica hazards and control methods.
   * **Work Practices:** Implement work practices that minimize dust generation, such as using wet cutting techniques and reducing the time spent on dust-generating tasks.
   * **Signage:** Post signs to mark areas where silica dust exposure is likely.
3. **Personal Protective Equipment (PPE)**
   * **Respirators:** When engineering and administrative controls are not enough, use appropriate respirators. Ensure they are properly fitted and maintained.
   * **Protective Clothing:** Wear disposable or washable work clothes and shower (if possible) to prevent silica dust from being carried home.

**Housekeeping and Maintenance**

* **Clean-Up:** Use wet methods or HEPA-filtered vacuums to clean up dust. Avoid dry sweeping or using compressed air.
* **Equipment Maintenance:** Regularly maintain dust control systems to ensure they are functioning properly.

**Emergency Procedures**

* **Exposure Incidents:** If someone is exposed to high levels of silica dust, remove them from the area and seek medical attention immediately.
* **Spill Response:** For significant dust spills, use proper clean-up procedures and PPE to minimize exposure.

Remember, controlling silica dust is a shared responsibility. Always use the controls provided, follow safe work practices, and wear the necessary PPE. If you have any concerns or notice something wrong with the dust control systems, report it immediately.

. Safety Recommendations: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Job Specific Topics: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**TRAINING ROSTER**

COMPANY: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ JOBSITE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## SUPERVISOR: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**# 39 Silica Dust Controls 09-22-2024.**

**ADDITIONAL TOPICS COVERED: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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