Mixing Mortar and Silica Awareness Standards

Time: 8 hours

Maximum Class Size: 12

Prerequisite: None

Course Description:
This 8-hour course addresses OSHA standards for working with and mixing mortar and plaster. Participants will learn to identify the tools, materials, components and requirements for this scope of work as well as the hazards involved. In addition, the OSHA standards for Permissible Exposure Limits to silica will be presented.

Goals/Objectives/Student Learning Outcomes

• List and explain three types of silicosis
• Describe OSHA Requirements for PEL with Silica Exposure
• Identify two hazards associated with a gas-powered paddle mixer
• Describe how to mix with a gas-powered paddle mixer
• Describe how to mix Structo-lite with a drill and paddle mixer
• Demonstrate how to safely mix mortar with a gas-powered paddle mixer
• Demonstrate how to safely clean a gas-powered paddle mixer
• Demonstrate how to hand mix mortar with a shovel and wheelbarrow
• Demonstrate how to mix Structo-lite plaster using a drill

Standards
This 8-hour Mixing Mortar and Silica Awareness course addresses the following OSHA Standards:

• 29 CFR 1926.1153 OSHA Construction Industry Standard for Silica
• 1926.700 Concrete and Masonry
• 1926.28 Personal Protective Equipment
• 1926.300 Tools: Hand and Power
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Classroom Rules and Procedures:

- All classes begin at 6:30 a.m. and end at 3:00 p.m.
- Upon entering the classroom, all participants must sign-in and be seated by 6:30 a.m.
- No cell phones in class.
- No food allowed in classroom.
- Class will consist of a combination of lecture, video, demonstration, coached group exercises, individual exercises and assessments.
- Students are required to report to class ready to work and maintain the provided PPE.

Textbooks, Reading and Other Material:

- Flip Chart
- Markers
- NIOSH Article
- How to Mix Mortar video
- How to Mix Structo-lite video
- IT: US Silica Company SDS
- Mixing Mortar and Silica Awareness Student Handout Packet

Tools/ Equipment/ other Material:

- Drill with paddle
- Gas-powered paddle mixer
- Wheelbarrow
- Shovels
- Mixing hoes
- Mortar tubs
- Forklift
- Spec mix
- Structo-lite

Personal Protective Equipment

- 12 pair of gloves
- 12 pair of safety glasses
- 6 face shields
- 20 pair of ear plugs
- 12 hard hats
- 12 dust masks
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Course Requirements:

In order to receive credit for the course, participants must:
- Be present for a full 8 hours
- Participate in all classroom exercises
- Pass a written exam
- Pass a hands-on exam

Course Policies:

- Participants must be on time and ready to work.
- Participants must return from breaks on time.
- Participants must participate in each exercise and assignment.
- Participants who are on light duty are not allowed to take this course due to the physically demanding requirements.

Assessment and Grading:

Participants will be assessed on the following:
- All written exams must be passed with a score of 80% or above
- All hands-on exercises are graded on performance and participation. They are pass/fail and must be passed with a score of 80% or above.

Safety:
- Failure to maintain and use PPE may result in dismissal from the course.
- Failure to follow the OSHA guidelines taught in class will result in dismissal.