Participatory Activities

A. Quiz Bowl

Questions are asked throughout the training session.

Purpose: To reinforce learning of the primary educational objectives. Incorrect answers help trainers identify topics or slides that need revision and/or additional explanation. To reduce paper usage and facilitate scoring, the pretest and posttest questions were incorporated into the training presentation.

Method:
Following each section of the presentation slides, "Quiz Bowl", "pretest", or "post test" slides display on the screen. The question are read aloud, and the participants are asked to provide their responses via the Audience Response System. Alternatives to electronic data capture include verbal responses or trainees raising separate pieces of paper or cards on which the numbers 1-4, true and false have been printed. If using an audience response system, the participants' answers are displayed in graphical form on the screen. The correct and incorrect answers will be discussed

Materials: Audience Response System or six answer cards (numbers 1-4, true and false) for each participant

B. Product Label and Safety Data Sheet Activity

To be presented during the exposure recognition section.

Purpose: To review safety data sheets, specifically Section 3, "Composition/information on ingredients" for the product components, and specifically to determine whether or not the product contains silica. This provided hands on practice of looking to see if a product contains silica, and reinforces that most drywall joint compounds contain silica and that another name for silica is quartz.

Method: Trainees were provided two SDS sheets of two different drywall joint compounds, one that contains silica and one that does not.

Materials: Two SDS sheets. We selected two different dry wall joint compounds, one that contains silica (labeled only as quartz) and the second in which it is not listed as an ingredient. In the training for managers and supervisors, we also discussed Section 16 "Other information" in which it is noted silica may be present as an impurity, and while exposure expected during normal use, actual levels must be determined by industrial hygiene testing.

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Silica: Why you want to keep the dust out of your lungs and how to do it
SH-29668-SH6

C. Table 1 Activity

To be presented during the exposure control section:

Purpose: To instruct students on the contents of Table 1 of the standard and practicle demonstration of usage

Method: Trainees were provided a paper copy of Table 1 from OSHA's Respirable Crystalline Silica Standard for Construction, entitled "Specified Exposure Control Methods When Working with Materials Containing Crystalline Silica". We provided an overview of the specific equipment and tasks, locations, required engineering and work practice controls and required respiratory protection and minimum assigned protection factor (APF), which must all be in place to be compliant with Table 1 when it is an option for the specific equipment they are using. We chose selected equipment to review in detail.

Materials: Copy of Table 1 from OSHA's Respirable Crystalline Silica Standard for Construction, entitled "Specified Exposure Control Methods When Working with Materials Containing Crystalline Silica".

D. Respirator Demonstration Activity

To be presented during the Noise section.

Purpose: Hands on demonstration of the different types of respirators commonly used on construction sites, including Assigned Protection Factor 10 (APF10) and APF 25 respirators specified for use in Table 1 of the Respirable Crystalline Silica standard for the construction industry.

Method: We showed and an example of each of the major types of respiratory protection used for protection from silica, including those specified for use in Table 1. This also included demonstration of an N95 respirator with exhalation valve, which is less commonly used, but are more comfortable and less likely to fog glasses, to help them understand there are alternatives to practices such as cutting off the bottom strap of the N95, which renders them useless for respiratory protection. These were passed around to the trainees

Materials: Models demonstrated: N95, N95 with exhalation valve, ½ face elastomeric respirator with HEPA filter, full face elastomeric respirator with HEP filter, PAPR with HEPA filter

E. Sampler Demonstration Activity

To be presented during the exposure control section.

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Purpose: To demonstrate how a personal sample is taken.

Method: A trainee volunteer was asked to step up to the front of the room and the proper positioning of the sampler was demonstrated. The pump and cyclone were explained, including how the filter is sent to the lab and the results will be compared to the permissible exposure limit and action limit.

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Materials: Personal air sampler with pump, hose, and cyclone.

F. Hazard Scenarios

To be presented at the end of the training.

Purpose: These hazard scenarios were designed to have trainees consider their options of what to do in problematic work environment scenarios that will result in excess exposure to respirable crystalline silica dust and to reinforce the very serious hazards of exposure to silica from tasks such as jackhammering without the proper controls, engineering, including when they could want to exercise their right to report a serious workplace hazard to OSHA.

Method: Two scenarios were presented and answers were facilitated. 1)what would you do if co-workers/subcontractors are not using silica exposure controls and 2) what would you do if you felt in danger at work.

Materials: None. The scenarios and questions are described in the training presentation.

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