CSI Country Wide Case Study Safety Strategy Discussion

Construction Safety Investigator

Instructions

The objective of this tool is to provide field supervisors with information to proactively engage workers and discuss safety related concerns that they may encounter. Safety discussions should not be limited to the subject above and should pertain to the activities that workers will be involved in that may have the potential for safety related exposures.

Case Day:

May 2009

Accident Type:

Hand and Power Tool Accident - Compressed Air Cleaning

Relevant laws, rules and codes may include:

29CFR 1926.20(a)(1), 1926.21(b)(2), 1926.302(b)(1), 1926.302(b)(4), 1926.302(b)(5), Standard Interpretations 04/14/1978 - The use of compressed air for cleaning purposes with a pressure greater than 30 P.S.I. and the use of air guns with long pipes and 01/14/1994 - Using compressed air for cleaning an employee's body and clothing

Case:

A construction worker lost his eye when debris was blown at him by an air pipe.

Accident Detail:

The worker was employed by a street and road contractor hired to make maintenance repairs to a section of asphalt roadway. The scope of work included repairing sections of the roadway by saw cutting and removing the damaged asphalt and repairing the section with a new asphalt patch.

As part of the process, one worker used a walk-behind saw cutting machine to pre-cut sections of the roadway marked out with paint. Then other workers would remove the pre-cut sections using jackhammers and hand tools. Once the section of asphalt was removed, it was necessary to clean out the open hole in the road surface, in preparation for the new asphalt patch. This was performed by using a portable air compressor with a blow pipe attachment.

While using the blow pipe to clean out the remaining debris in a repair hole, a piece of asphalt debris was loosened and blown out of the hole and directly into the face of the injured employee, striking him in the right eye, rupturing it. His eye could not be saved.

Reconstructive Safety Evaluation:

- What are some of the possible causes of the accident being discussed?
- What actions could have been taken that might have prevented this accident from occurring?



Accident Scene Conclusion:

The investigation revealed that the air compressor in use did not limit the air pressure at the nozzle to 30 psi (pounds per square inch) and the injured worker, as well as others in the operation and vicinity of the blow pipe, were not wearing appropriate eye or face protection or other clothing to prevent injury from flying debris.

Preventive Safety Measures Include:

- All operations are preplanned using a Job Safety Task Analysis (JSTA) to ensure potential safety hazards associated with an
 operation are identified and appropriate steps are taken to eliminate or control them.
- Workers should be trained in the hazards of the work they are to perform, the personal protective equipment and safe work procedures necessary to perform their assigned tasks.
- To prevent injury from flying debris, compressed air used for cleaning purposes must be reduced to less than 30 psi.
- Compressed air used for cleaning must only be permitted with effective chip guarding and personal protective equipment to protect the operator and other employees from the hazards of the release of compressed air and flying debris.

Attendance Roster		

Reference: This case is fictitious, and any resemblance to any persons, living or dead, is entirely coincidental. However, the type of accident described in this case summary happens all too often on construction sites.

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