CSI Country Wide Case Study Safety Strategy Discussion

Construction Safety Investigator

CHUBB®

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:
Fire Protection - Torch Cutting

Relevant laws, rules and codes may include:
29CFR 1926.20(a)(1), 1926.21(b)(2), 1926.150, 1926.152(a)(1), 1926.352

Case:

A welder and laborer were severely burned when flammable liquids exploded in their work area.

Accident Detail:

The welder and laborer were working for a contractor, subcontracted to demolish a section of building. The section of building (storage room) to be partially demolished was also being used by the GC to store construction tools and other materials for the job.

Roof supports and trusses were shored up in front of the block wall to be removed so the two workers could pre-cut the steel trusses in preparation for the wall removal. The welder used a step ladder to access the trusses and an oxy/acetylene torch to perform the task. The laborer was assisting the welder with the operation.

As the welder began to cut the steel, hot slag was falling to the floor and being blown away from the cut by the force of the torch. Both workers were unaware that unmarked containers of gasoline were stored adjacent to where they were working. Slag from the torch cutting landed on and near the containers, causing them to ignite and explode, which burned both workers.

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 there were unmarked containers with fuel gas stored in the room. These containers were approximately 10 feet from the location where the torch cutting was taking place. The containers used were not approved safety cans. An evaluation of the room was not completed prior to beginning this operation to identify any flammable or combustible materials in the area. There was no hot work or fire protection plan in place and no fire extinguisher located in the room or accompanying the operation.

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.
- Flammable liquids are stored in approved safety cans and/or containers and clearly marked with their contents. Flammable liquids should be stored in approved storage cabinets and away from combustible materials.
- Before hot work operations take place, an evaluation of the area should be completed to identify and remove any potential flammable or combustible materials and a hot work permitting program established to ensure all necessary precautions are taken and safety measures and equipment are in place.

Attendance Roster

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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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