On June 26, 2008, a carpenter suffered fatal injuries when struck by a concrete pump hose. The 31-year-old victim had worked for the past five years as a carpenter for his employer, a company that performs commercial and institutional building construction. On the day of the incident, the victim was the pour leader working with a crew pouring concrete for the second story floor of a new municipal building. As they were making the pour there was a blockage in the two-section hose. The whip hose was removed and the delivery line was removed from the building and the blockage cleared. The delivery line and the remaining hose with metal fittings on both ends were returned to the building but the whip hose was not reattached. As they attempted to pump, there was another blockage in the hose. The pump truck operator raised the hose up about 5 feet so that he could remove it from the building. He entered the building to warn the carpenters that the hose had pressure in it. As he was walking back to the truck there was an explosive discharge from the hose, causing it to whip. The victim was struck in the head by the metal fitting on the hose. Despite wearing a hard hat, the victim died at the scene of head injuries.

Requirements

- Employers should train everyone involved in concrete pumping operations. See WAC 296-155-110
- Training should include aspects related to the pressures involved in the piping system during the operation and the hazards due to a blockage when trapped air is released causing the end of the hose to whip. See WAC 296-155-110
- Double ended hoses must not be used as whip hoses. See WAC 296-155-682

Recommendations

- Establish safe work practices for concrete pumping operations and ensure that they are followed by employees.
- Clear the area around the reach of the whip hose, especially during priming, any delay in the concrete operation or with any blockage in the hose.
- Planning the pumping operation and preparing the job site is very important. The planning should include the primary setup, the cleaning of the system, and knowledge of other jobs and workers that are in the proximity of the concrete pumping process.

State Wide Statistics: This was number 34 out of 72 work-related fatalities in Washington State during 2008, and was number 8 out of 18 construction-related fatalities.

*This bulletin was developed to alert employers and employees of a tragic loss of life of a worker in Washington State and is based on preliminary data ONLY and does not represent final determinations regarding the nature of the incident or conclusions regarding the cause of the fatality.

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