

lenses clean, and always follow the advice of your eye care specialist.

- Discuss your work environment and any possible hazards with your eye care specialist.
- Make sure your co-workers and employer know you wear contact lenses.
- Be on the lookout for changes to work processes and environmental conditions that may be a hazard for you.
- Keep eyeglasses available for unexpected circumstances.
- Wear PPE when required.
- Learn about eye hazards and encourage your employer to do the same.

## Cement safety

By taking basic precautions, workers can safely mix, handle and finish concrete without incident. The Portland Cement Association offers these tips for working safely with concrete:

**Stay vigilant.** Proper eye protection is essential when working with cement or concrete because eyes are especially vulnerable to blowing dust, splattering concrete and foreign objects. Depending on conditions, full-cover goggles or safety glasses with side shields may be necessary.

**Watch your back.** The ingredients needed to make cement are heavy, even in small quantities. When lifting loads of cement, keep your back straight, legs bent, and the load's weight between your legs and as close to your body as possible. Never twist at the waist. If the load is too heavy for one person, ask a co-worker for assistance.

**Protect your skin.** Extensive contact between fresh concrete and skin surfaces, eyes and clothing may cause severe injuries, including caustic burns. If you or a co-worker suffers a burn, seek immediate medical attention.

**Use proper positioning.** When hauling cement, place it as close as possible to its final position. Once the concrete is where it needs to be, push – do not lift – it into its final position with a shovel. ☉

FACE photos: NIOSH

# FACEValue

NIOSH's **F**atality **A**ssessment and **C**ontrol **E**valuation Program

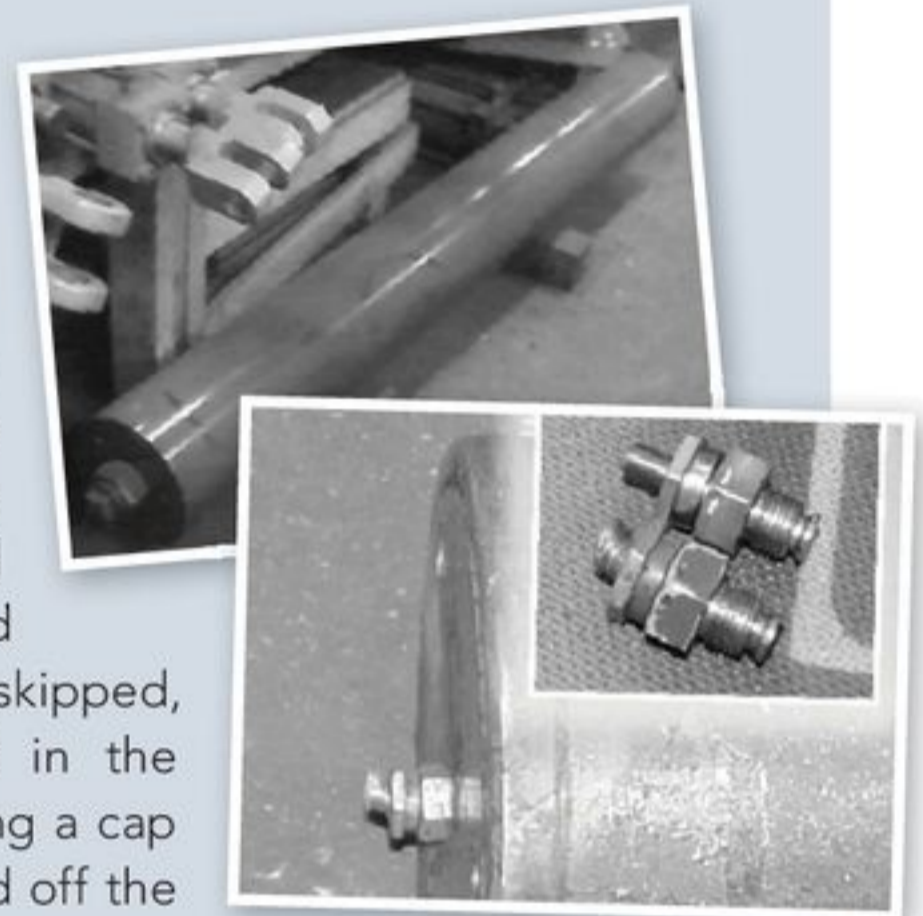
**Case report:** #OR 2011-16-1\*

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## MILLWRIGHT KILLED DISASSEMBLING HYDRAULIC ACCUMULATOR

A 61-year-old millwright with more than 30 years of experience was killed, and two others were injured, when trying to disassemble a hydraulic accumulator to rebuild it. The victim was viewed by everyone, including managers, as an expert at the task. Warning labels on the accumulator and in the rebuild kit instructions stated that all gas pressure must be released before disassembly. However, this step was skipped, and pressurized nitrogen gas remained in the accumulator. While the victim was removing a cap from the accumulator, it violently exploded off the cylinder and struck the victim in the abdomen and pelvis, killing him. Co-workers were injured by the cap and debris.



### TO PREVENT FUTURE OCCURRENCES:

- ✓ Employers should ensure employees follow the manufacturer's recommendations and confirm all pressure is released prior to performing any maintenance work.
- ✓ Install a "dump valve" in hydraulic systems to ensure hydraulic energy is released.
- ✓ Train employees to recognize the hazards of stored energy.
- ✓ Empower employees to stop work whenever potentially hazardous methods are used.
- ✓ Ensure all warning labels remain visible while removing caps.
- ✓ Warning labels are a necessary form of safety communication, but label messages should be reinforced in the workplace through additional person-to-person communication.

*\*This report is the product of NIOSH's Cooperative State partner. The findings and conclusions in each report are those of the individual Cooperative State partner and do not necessarily reflect the views or policy of NIOSH.*

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