

April 2009

Worker severely burned by wet concrete

Burn Injury Narrative (SHARP Report # 86-8-2009)

What happened?

A 24 year-old concrete finisher was working at a construction site pouring concrete. He was wearing construction boots instead of liquid proof boots. The cement soaked through his boots. In addition it spread past his gloves on both wrists. He sustained the following injuries:

- **2nd degree burns** to both feet and ankles, and both wrists above the glove line
- He was **hospitalized for a week** and was **off work for over a month**.



- Alkaline **compounds found in wet concrete are extremely corrosive** and if not removed promptly from skin can severely burn.
- **Concrete dust** can mix with sweat or wet clothing and produce a caustic solution that **can severely burn skin**.

How can you prevent this from happening?

Employees:

- **Wear all appropriate personal protective equipment which may include:**
 - Forearm length snug fitting alkali-resistant gloves.
 - Liquid proof boots high enough to prevent concrete from entering boots if you must stand in wet concrete or boots taped to pants to seal the opening between the boot and leg.
 - Long sleeved shirts, taped to gloves.
 - Use thin/lightweight cotton glove liners to help control perspiration.
- **Remove clothing** contaminated by wet concrete immediately.
- **Thoroughly clean skin** with cool clean water if it has come in to contact with wet concrete.
- **Use liquid proof kneepads** when kneeling on fresh concrete to protect knees from being burned.

Employers:

- **Ensure that all employees** who are working with cement and concrete mixtures are trained in the hazards and proper handling of these materials.
- **Provide employees** with plenty of clean running water, pH-neutral soap to help neutralize the caustic effect of cement and clean towels.
- **Conduct skin assessments** throughout the day for employees working with concrete.
- **Train** your employees on first aid for burns so that immediate and proper first aid treatment is accessible at the job site.