

LOSS CONTROL

Information Bulletin

High Pressure Injection Injuries to the Hands ROAD DEPARTMENTS

Over the last few years, a number of painful and expensive hand injuries have occurred as a result of the high pressure injection of fluids into workers hands. The vast majority of Road Departments use high pressure hydraulic or pneumatic equipment to work on the equipment. The common and every day use of these high pressure systems have resulted in a dramatic increase in high pressure injection injuries to the hands. The most common types of these hand injuries results from:

- the use of high pressure grease guns
- the use of airless paint sprayers
- the repair of high pressure fuel injection systems on diesel or marine engines
- the repair of hydraulic leaks on heavy industrial equipment and machinery

Steps to Take When Workers Are Injured

The medical community offers these guides to workers injured by high pressure injection of substance into the hands.

- ✓ a pressure of 100 psi is enough to penetrate the skin & inject materials into the body
- ✓ high pressure systems have pressures of 500 psi or greater
- ✓ if any substance is injected into the hand, then a surgical emergency exists
- ✓ a good pre-operative treatment for the injured worker includes the use of cold compress to the affected area and the elevation of the hand to decrease swelling
- ✓ one possible and serious side effect of delayed treatment is the on set of gangrene

Amount of damage done and the long term disability prognosis depends upon:

- (a) the amount of fluid or material injected into the hand
- (b) the type of fluid or material injected into the hand
- (c) the pressure at which the fluid or material was injected into the hand
- (d) is infection present and the degree to which it spreads

LOSS CONTROL

Information Bulletin

(e) the elapsed time between injection of the substance and surgery appears to be the critical factor in determining the final outcome

Sound Advice to Prevent High Pressure Injection Injuries

- always follow the manufacturer's directions to repair the equipment properly
- when a high pressure leak occurs, shut down the equipment immediately
- reduce the pressure on all systems immediately to zero before any work commences
- do not use your hand, under any circumstance, to try and locate a leak
- use only cardboard, paper, wood or plastic to try and identify the location of the leak
- remove the faulty or damaged equipment, **you do not** attempt to repair it

Treat all high pressure injection injuries as surgical emergencies

Meadowbrook Loss Control	✓Important Phone Numbers (334)954-7260	800/536-7702
--------------------------	--	--------------

Oct. 2007

Note

This document is not intended to be legal advice. It does not identify all the issues surrounding the particular topic. You are encouraged to review your policies and procedures with an expert or an attorney who is knowledgeable about the topic.