

## Walking Through Life Series...

'Sharks' are unpredictable hazards that may wait, lurk and strike in any situation, even when someone is least expecting it.

### "Environmental Exposure" Injuries

The next 'shark' we need to learn to avoid as we walk through life is *environmental exposure* injuries.

**Environmental exposures** involve exposure to radiation, fumes, gases, mists, dusts, temperature extremes, oxygen deficiency and noise. These exposures do not include direct contact with liquid chemicals. Exposures can come from (but aren't limited to) welding fumes, carbon monoxide gas, paint thinner vapors, asbestos, working in the heat/cold or exposure to ionizing radiation.

#### Specific examples include:

- A forklift operator driving a propane-powered machine develops a severe headache and a feeling of nausea. It is discovered that his forklift was emitting high levels of carbon monoxide and he had been affected by the gas.



- A worker conducting environmental remediation work becomes ill after wearing Level B personal protective equipment (PPE) for 35 minutes. The temperature is 85 degrees F.



### Environmental Exposure Hazard?

At home, a worker thinks it may be a good idea to mix cleaning chemicals to get the best component from each.

#### Could this be a problem?



## Supervisor Briefing Points

### Preventive Measures for *Environmental Exposure Injuries*

- Use engineering controls to minimize exposure to harmful chemicals, dust, fumes, etc.
- Understand the hazards of the chemicals you use by reading the MSDS/SDS, and using the proper PPE.
- Isolate and separate chemicals to prevent reactions. Store chemicals and evaluate them per the manufacturer's recommendations.
- Substitute harmful chemicals with safer chemicals, where possible.
- Use signs and warnings to instruct and guide workers.
- Contact an industrial hygienist or safety professional to perform air and/or noise monitoring.

Do you see any potential concerns with the work going on in the photo below?



### Ask yourself the following:

- ✓ Do I know what potential **environmental exposures** I face at work or home?
- ✓ Do I look for **environmental exposures** that others may face throughout the day?
- ✓ Do I know how to control **environmental exposures**?

### EMS TIP:

The potential for environmental exposure to chemicals can be reduced by replacing toxic and hazardous materials with non-hazardous materials.



CORE FUNCTION: 3  
*Hazard Prevention & Control*