Workplace Fatality Summary Report:

Worker Fatally Injured as a Result of Carbon Monoxide Exposure

The Contents of this Report

This report summarizes the Ministry of Labour Relations and Workplace Safety's Occupational Health and Safety Branch investigation of a fatal incident. The information contained in the report is intended for educational purposes only.

Incident Summary

A worker was fatally injured as a result of carbon monoxide exposure while operating a mobile sandblasting unit.

Background Information

The process of abrasive blasting requires a worker to use a respiratory protective device such as an approved blasting hood. The hood must have a continuous supply of clean filtered air for the worker to breathe.

Equipment, Materials and Incident Photos

Trailer-mounted Sandblaster:

Figure 1 shows the trailer-mounted sandblaster used by the worker on the day of the incident.

Figure 1

Melted Hose:

Figure 2 shows the state of the compressor air discharge hose, which had been damaged by fire.

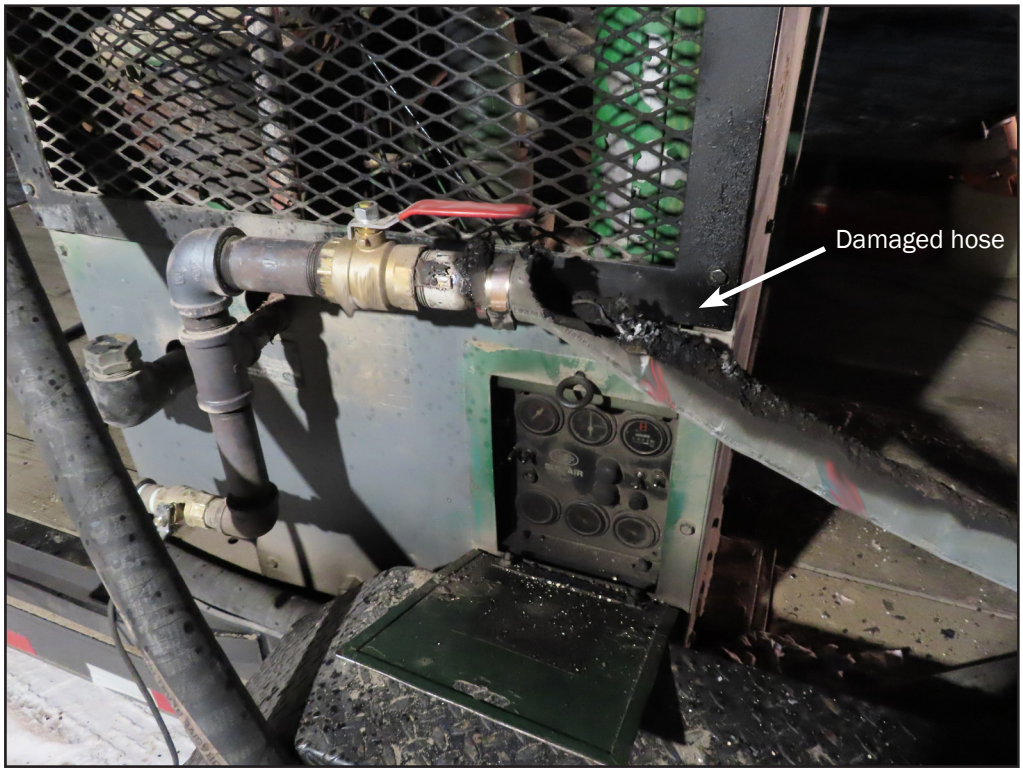

Figure 2

Sandblasting Hood:

Figure 3 shows the hood worn by the worker, including the hose attachment used to provide a supply of clean air.

Figure 3

Sequence of Events

On the day of the incident, a worker was operating a mobile sandblasting unit in the yard of a local business to remove paint from a trailer. The worker was wearing an abrasive blasting hood which was supplied with air from a compressor. Subsequently, a bystander noticed the worker lying on the ground in a prone position; the passerby then notified the employer. The worker was found unresponsive and could not be resuscitated.

During the sandblasting process, a fire started in the separator tank on the mobile sandblasting unit, which spread to the compressor discharge hose. The fire caused carbon monoxide to make its way into the hood. The fire damaged the hose and allowed contaminated air to make its way into the worker's blasting hood through its air supply.

A carbon monoxide removal filter was not used as part of the air supply system and the air supply had not been tested or monitored for carbon monoxide levels.

Completion

The employer pleaded guilty to contravening clause 24-8(2)(b) of *The Occupational Health and Safety Regulations, 2020* (being an employer failing to provide and maintain approved blasting hoods supplied with air that is clean and at a reasonable temperature for workers engaged in abrasive blasting, resulting in the death of a worker).

The employer was fined $60,000, along with a surcharge of $24,000, for a total amount of $84,000.