

Investigation Report
Worker Fatally Injured When Pinned by Workpiece
November 17, 2018

The contents of this report

This document reports Occupational Health and Safety's investigation of a workplace fatality in November 2018. It begins with a short summary of what happened. The rest of the report covers this same information in greater detail.

Incident summary

A sandblaster/painter was abrasively blasting a steel frame in preparation for painting when the workpiece fell over and pinned him. The worker was working on their own in the sandblasting tent while the rest of the workers went on their lunch break. The worker was later found beneath the workpiece by co-workers who attempted to revive the worker.

Background information

WPW Inc. (formerly W. Pidhirney Welding Ltd.) is an oilfield service and welding company located in Leslieville Alberta that provides construction services to the Alberta and British Columbia oil and gas industry. The company undertakes oilfield construction, fabrication and repair services, and specializes in pipelines, gas plants, compressor stations, oil batteries and well site facilities. The company has been in operation since 1983.

The sandblaster/painter had been employed by WPW Inc. since 2014. The sandblaster/painter was responsible for setting up, maintaining and operating the sandblast area and the painting area; ordering supplies; training and mentoring other sandblaster/painters; as well as being the fabrication shop quality advisor.

Equipment and materials

Mod-U-Blast

MBM-Series 3.5 Cubic Foot (100 Litre) Abrasive Blast Machine

This abrasive blast unit was a portable model that had been set-up with a Sullair portable air compressor as a dedicated sandblasting system and included a RADEX breathing air filter system.



Figure 1. Abrasive blasting unit assembly (compressor, abrasive blasting unit and breathing air filter) located outside the sandblasting area. The compressor is indicated by the arrow.



Figure 2. Mod-U-Blast Abrasive Blasting Machine and RADEX breathing air filter (indicated by green circle).

Steel Frame

The steel frame section was composed of I-beam sections welded together. The frame was 4.50 metres (m) long and 1.23 m wide. The I-beam sections were 0.20 m by 0.21 m. The approximate weight of the frame section was 399 kilograms (880 pounds).



Figure 3. Frame section lying on ground in sandblasting area. Prior to the incident, the steel frame had been positioned in an upright manner on the ends of the short sections of the frame (indicated by arrows). The area in the circle showed indications of abrasive blasting on the surface.

Sequence of events

On November 17, 2018, at approximately 11:30 a.m., a steel frame was brought from the fabrication shop to the sandblasting area of the WPW Inc. yard for abrasive blasting in preparation for painting. The fabrication shop worker who brought the piece into the sandblasting area asked the sandblaster/painter if they wanted the frame placed flat on the ground. The fabrication shop worker was directed by the sandblaster/painter to stand it up so that the sandblaster/painter could work on both sides. There was a significant amount of used, sand-like abrasive blasting material on the floor of the sandblasting area.



Figure 4. Sandblasting area showing the frame (indicated by arrow) the sandblaster/painter was working on as well as other work pieces supported on stands.

At 12:00 p.m., the fabrication shop workers went on their lunch break, and the sandblaster/painter remained in the sandblast area since it took too long to take off the protective abrasive blasting equipment. There were no other workers in the sandblasting area. When the workers returned from their lunch break at approximately 12:30 p.m., they noticed that the abrasive blasting unit was still running but was idling. One of the fabrication shop workers went to check on the sandblaster/painter and found the worker pinned under the frame and unresponsive.

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The fabrication shop worker called for assistance and other workers came to help move the frame off the sandblaster/painter using a hoist in the sandblasting area. The workers then attempted to perform cardiopulmonary resuscitation (CPR) on the sandblaster/painter and also used an Automated External Defibrillator (AED) device until the arrival of Emergency Medical Services (EMS). EMS personnel pronounced the sandblaster/painter deceased.

Completion

A review for enforcement action was completed on February 20, 2019 and it was determined that prosecution or an administrative penalty were not appropriate based on the circumstances surrounding this incident.

This investigation was closed on March 7, 2019.

Final Report

Signatures

ORIGINAL REPORT SIGNED

March 7, 2019

Lead Investigator

Date

ORIGINAL REPORT SIGNED

March 7, 2019

Manager

Date

ORIGINAL REPORT SIGNED

April 3, 2019

Director

Date