

Workplace Health and Safety Fatality Report



WORKER BURNED BY GASOLINE FIRE

Date of Incident: October 29, 2007

Type of Incident: Fatal

Government of Alberta ■
Employment and Immigration

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Section 1.0 DATE AND TIME OF INCIDENT

1.1 October 29, 2007 at approximately 8:30 a.m.

Section 2.0 NAME & ADDRESS OF PRINCIPAL PARTIES

2.1 Owner/ Employer

2.1.1 W.D. Peterson Inc.
1619 – 20th Avenue
Nanton, Alberta
T0L 1R0

2.2 Worker

2.3 Others

2.3.1 Royal Canadian Mounted Police
Nanton Detachment
P.O. Box 340
2501 – 21 Street
Nanton, Alberta
T0L 1R0

Section 3.0 DESCRIPTION OF PRINCIPAL PARTIES

3.1 W.D. Peterson Inc. is a Nanton based small employer with four workers including the owner/ manager. The company services and repairs heavy duty mobile equipment and trailers.

3.2 The worker was a heavy duty mechanic who had been with W.D. Peterson Inc. for nineteen months. He was a licensed heavy duty mechanic with seven years of experience.

Section 4.0 LOCATION OF INCIDENT

4.1 The incident occurred inside the truck service facility located at 1619 - 20th Avenue, Nanton, Alberta (Refer to Appendix A-Map and Appendix B-Photographs 1 and 2).

Section 5.0 EQUIPMENT, MATERIAL AND OBSERVATIONS

5.1 Equipment and Material

- 5.1.1 The truck involved in the incident was a 1976 GMC C6500 equipped with a fertilizer dispensing unit. The vehicle owned by Parkland AGRI Services Corp. of Didsbury, Alberta had identification number TCE676V578259. The gross weight of the truck was 11500 Kilograms (Refer to Appendix B-Photographs 3, 4 and 5).
- 5.1.2 The truck was powered by a gasoline engine and had a double barrel carburettor. The truck was equipped with two gasoline tanks located either side of the chassis. The gasoline line connecting tanks to the carburettor was equipped with a 3 way manually operated valve. The valve could be turned to two different positions to control the gasoline flow from the passenger's side or driver's side tanks. In the third position, gasoline flow to the carburettor from either tank was turned off (Refer to Appendix B-Photographs 6, 7, 8, 9, and 10).
- 5.1.3 At the time of the incident the 3 way valve was in the third position, turning off the gasoline flow to the carburettor. The mechanics were unaware of the existence of the 3 way valve that controlled the gasoline flow to the carburettor. The 3 way valve was found after the incident.
- 5.1.4 The plastic cap of an aerosol can was used to pour gasoline into the open carburettor. The total volume of the cap was approximately 0.113 litres (Refer to Appendix B-Photograph 11).
- 5.1.5 The mechanics were wearing blue coveralls at the time of the incident. The coveralls were not fire resistant (Refer to Appendix B-Photograph 12).

5.2 Observations

- 5.2.1 The 3 way valve was located beside the driver's seat, on the floor of the truck.
- 5.2.2 The manager indicated that pouring gasoline into a carburettor to start an engine had been used previously on other vehicles, without experiencing any problems.
- 5.2.3 The truck had been moved out of the garage, into the yard, prior to the arrival of WHSC.

Section 6.0 NARRATIVE DESCRIPTION OF INCIDENT

- 6.1 On October 29, 2007, approximately at 8:00 a.m., the manager and two mechanics started work at the truck repair shop. The manager instructed the mechanic #1 to fill up each of the gasoline tanks of GMC C6500 truck with 20 Litres of gasoline and start the engine. After filling up the tanks, mechanic #1 attempted, but could not start the engine.
- 6.2 Mechanic #2, who was in the repair shop, told mechanic #1 that he would help him start the truck. Mechanic #2 poured some gasoline from a Jerry can into a plastic aerosol can cap and brought it to the truck. The hood of the truck was in the open position.
- 6.3 Mechanic #1 sat in the driver's seat of the truck and mechanic #2 climbed onto the front bumper of the truck. Mechanic #2 poured some of the gasoline into the carburettor from the plastic cap, leaned back and asked mechanic #1 to start the truck. Mechanic #1 turned the ignition key, but could not start the truck.
- 6.4 Mechanic #2 poured more of the gasoline into the carburettor from the plastic cap, leaned back and asked mechanic #1 to try to start the truck again. When mechanic #1 turned the ignition key on, the engine of the truck backfired. Flames shot out of the carburettor and fire engulfed mechanic #2.
- 6.5 Mechanic #2 was aflame and running around the shop. The manager, who observed the incident from the office area, rushed to the assistance of mechanic #2. The manager got mechanic #2 to the floor and tried to extinguish the flames with his hands. The manager then took off his vest and tried to smother the flames using his vest. Mechanic #1 came to assist the manager, in extinguishing the flames with a fire extinguisher.
- 6.6 The manager walked mechanic #2 to the shower located on the upper level of the shop. After cooling mechanic #2 down in the shower, mechanic #1 drove mechanic #2 to High River hospital in his car. The manager alerted High River hospital by telephone, of the expected arrival of severely burned mechanic #2.
- 6.7 Mechanic #2 was transferred from High River hospital to Foothills hospital where he died of his injuries on November 14, 2007.

Section 7.0 ANALYSIS

- 7.1 Direct Cause:

Mechanic #2 was burned by the gasoline fire blown out of the carburettor.

7.2 Contributing Factors:

7.2.1 When mechanic #1 turned the ignition key on, the truck engine backfired, igniting the gasoline that had been poured into the open carburettor.

7.2.2 Mechanic #2 was in front of the open carburettor when the engine backfired.

7.2.3 Both mechanics were unaware of the existence of the 3 way valve controlling flow of gasoline to the carburettor.

7.2.4 The 3 way valve was in off position.

7.2.5 No hazard assessment had been conducted for starting a stalled engine by pouring gasoline into an open carburettor.

Section 8.0 FOLLOW-UP/ACTION TAKEN

8.1 Alberta Employment and Industry

8.1.1 On November 2, 2007, Workplace Health and Safety Compliance (WHSC) received an incident notification. On November 5, 2007, an Occupational Health and Safety Officer responded to the scene and commenced an incident investigation. On November 15, 2007 WHSC was notified that the worker had died of his injuries.

8.1.2 WHSC issued an order requiring the employer to conduct an incident investigation and prepare a report.

8.1.3 WHSC issued an order requiring the employer to conduct a hazard assessment for work conducted on site.

8.2 Industry

8.2.1 The employer conducted an incident investigation and submitted a report to WHSC for review.

8.2.2 The employer conducted a hazard assessment for work conducted on site.

8.2.3 The employer complied with all the orders issued by WHSC.

Section 9.0 SIGNATURES

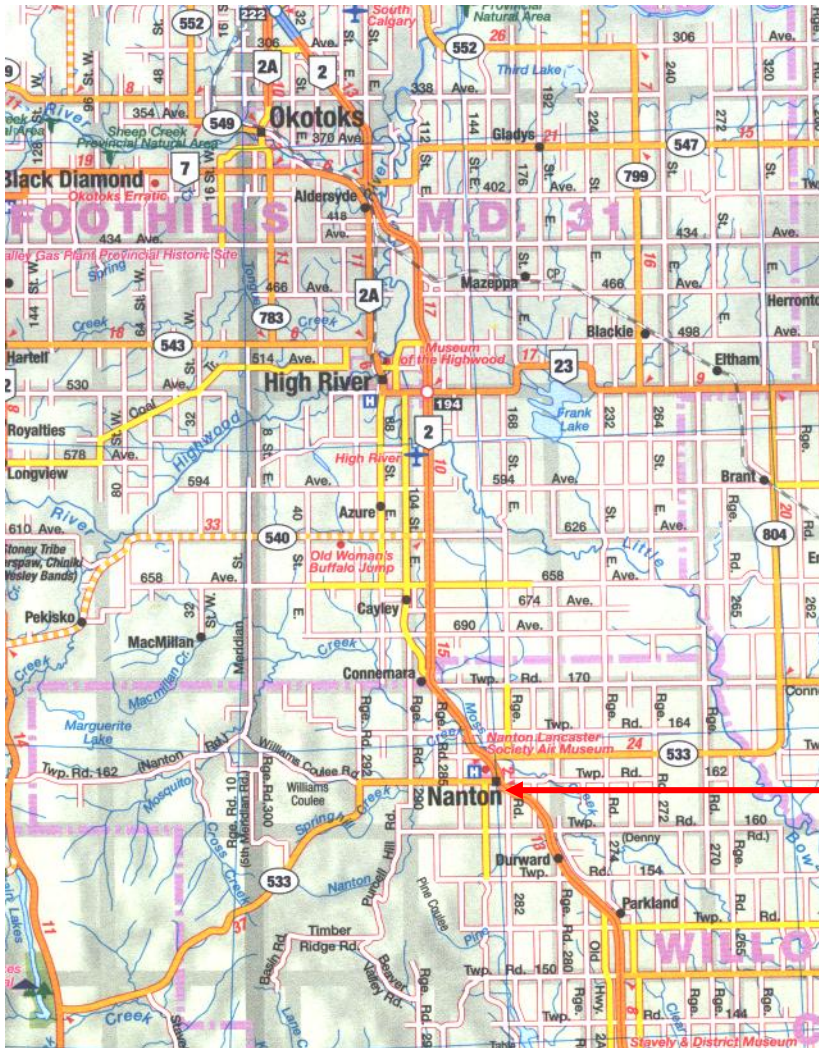
Original Report Signed _____
Lead Investigator **Date**

Original Report Signed _____
Reviewer **Date**

Original Report Signed _____
Senior Manager, South **Date**

Section 10.0 ATTACHMENTS

- Attachment "A" - Map
- Attachment "B" - Photographs



Map: Shows the location of the incident



Photograph 1: Shows the truck service facility.



Photograph 2: Shows an inside view of the service facility where the truck was parked at the time of the incident.



Photograph 3: Shows the front view of the truck involved in the incident.



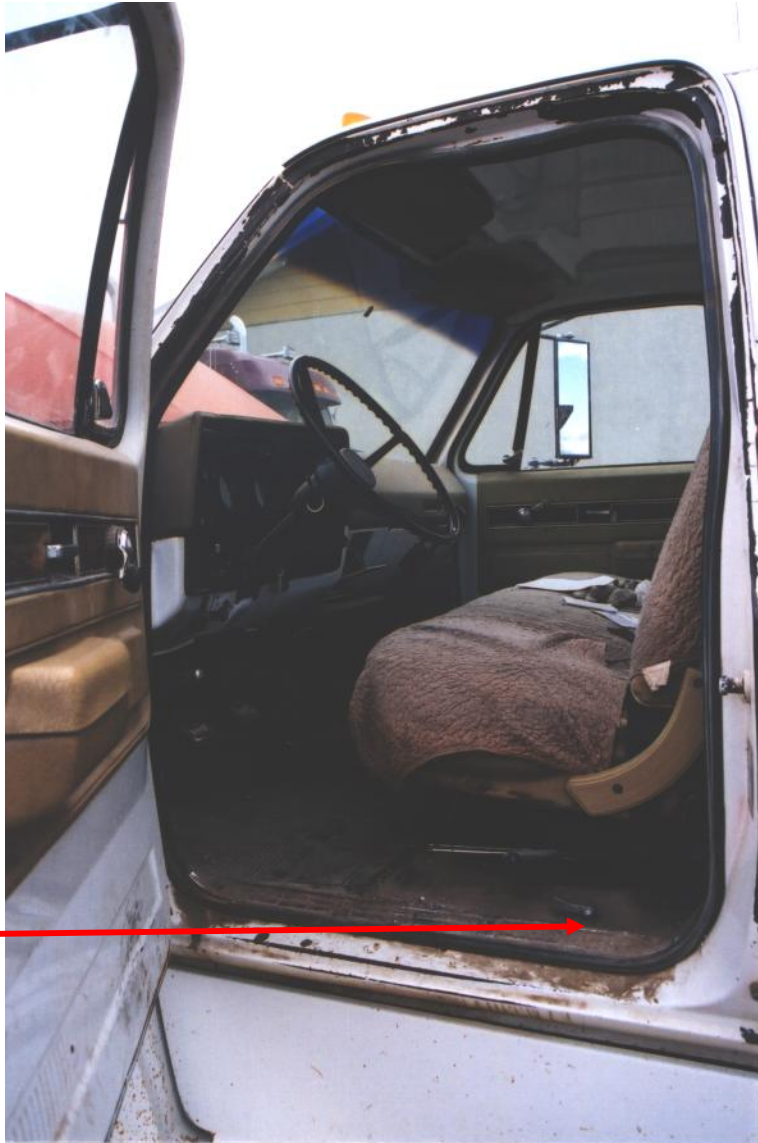
Photograph 4: Shows the driver's side of the truck
Arrow shows the gasoline tank.



Photograph 5: Shows the passenger's side of the truck
Arrow shows the gasoline tank.



Photograph 6: Shows the twin barreled carburetor to which gasoline was poured.



Photograph 7: Shows the driver's side location of the 3 way valve.



Photograph 8: Shows the 3 way valve turned to open gasoline flow from the driver's side gasoline tank.



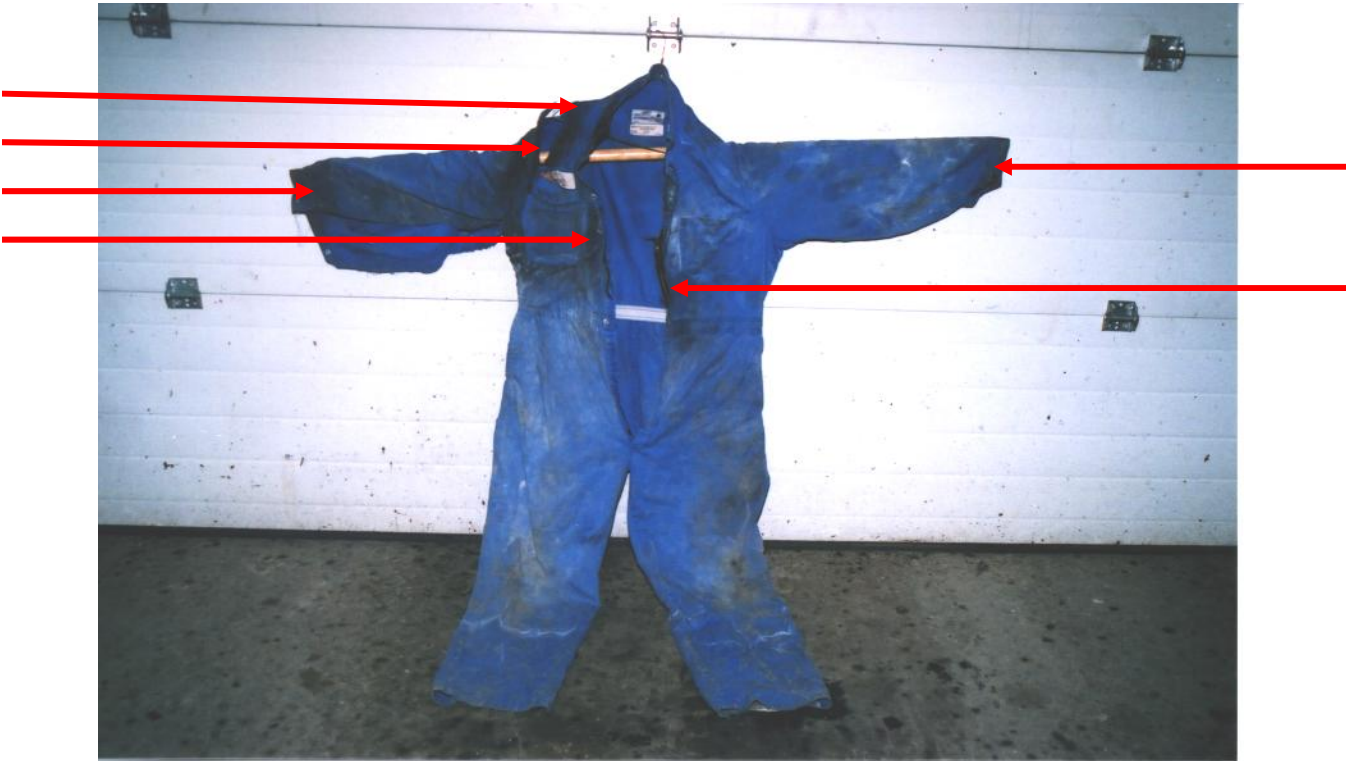
Photograph 9: Shows the 3 way valve turned to open gasoline flow from the passenger's side gasoline tank.



Photograph 10: Shows the 3 way valve turned to close gasoline flow from either of the two tanks.



Photograph 11: Shows an aerosol can cap, similar to the one used to pour gasoline into the carburetor.



Photograph 12: Shows the coverall worn by the mechanic #2
Arrows show the burned areas.