

# **Workplace Health and Safety Fatality Report**



**Worker Crushed**  
**Date of Incident: September 21, 2007**  
**Type of Incident: Fatal**



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## **SECTION 1.0          DATE AND TIME OF INCIDENT**

1.1     The incident occurred on September 21, 2007 at approximately 9:50 a.m.

## **SECTION 2.0          NAME AND ADDRESS OF PRINCIPAL PARTIES**

### **2.1     Owner**

2.1.1   City of Edmonton  
1 Sir Winston Churchill Square  
Edmonton, Alberta  
T5J 2R7

### **2.2     Employer**

2.2.1   Waste Services (Ca) Inc.  
185 Strathmore Way  
Sherwood Park, Alberta  
T8H 1Z7

### **2.3     Worker(s)**

2.6.1

## **SECTION 3.0          DESCRIPTION OF PRINCIPAL PARTIES**

### **3.1     City of Edmonton**

3.1.1   The City of Edmonton is the capital of Alberta and is located on the banks of the North Saskatchewan River in northern Alberta at 53 degrees 34 minutes north latitude and 113 degrees 31 minutes west longitude. Its metropolitan area population was 1,014,000 according to the 2005 census.

### **3.2     Waste Services (Ca) Inc.**

3.2.1   Waste Services (Ca) Inc. is an integrated, solid waste service company providing collection, transfer, landfill disposal and recycling services for commercial, residential and industrial customers in the United States and Canada.

## **SECTION 4.0          LOCATION OF INCIDENT**

4.1     The incident occurred near the southwest corner of the intersection of 151 Street and 111 Avenue in the City of Edmonton.

## **SECTION 5.0 EQUIPMENT, MATERIAL AND OBSERVATIONS**

### **5.1 Equipment and Material**

#### **5.1.1 Kenworth truck**

5.1.1.1 The Kenworth truck involved in this incident was a 2008 Construct model; its vehicle identification number was 1NKDL09XX8J934616. Its licensed mass was 23100 kg. (Attachment "A" Photographs 1 & 2).

#### **5.1.2 Trailer**

5.1.2.1 The trailer involved in this incident was manufactured in 2002 by Universal, its vehicle identification number was 2U9DX-0332-004506 and model number 4002-8 (Attachment "A" Photographs 1,3,4&5).

#### **5.1.3 Road**

5.1.3.1 The road where the incident occurred was an asphalt surface and measured a grade of 1% to 2.9% (0.4 to 1.6 degrees) from the point of impact to the location where the north wheels of the Kenworth truck rested, according to the Edmonton Police Service, Traffic Section (Attachment "A" Photographs 1 & 4).

#### **5.1.4 Garbage bin**

5.1.4.1 The garbage bin involved in this incident was manufactured by Universal Handling Equipment. Its capacity was 28 cubic metres with an empty weight of approximately 2800 kg. The garbage bin measured approximately 6 m long by 2 m high by 2 m wide (Attachment "A" Photographs 1-3).

### **5.2 Observations**

5.2.1 Upon arrival at the scene, the Edmonton Police Service traffic section was on location conducting their investigation. The scene was located near the southwest corner of the intersection of 151 Street and 111 Avenue in Edmonton. The scene consisted of a truck trailer combination with a 28 cubic m bin positioned on the trailer unit. Located approximately 1.2 m north of the end of the trailer was a 2008 Kenworth conventional cab truck with dual, tandem rear axles. This truck was equipped with a set of tilting rails that pivoted at the rear of the truck when the two hydraulic rams located behind the cab were activated. The rails were raised to approximately 5 degrees from the horizontal (Attachment "A" Photograph 1). Both trucks had been turned off.

5.2.2 Waste Services (CA) Inc. Senior management personnel were on location. Human vomit was on the road, underneath the rear portion of the trailer unit, this was later determined to be from the Worker who became fatally injured. The temperature was

approximately 12 degrees Celsius with light winds and mainly sunny skies.

## **SECTION 6.0 NARRATIVE DESCRIPTION OF THE INCIDENT**

- 6.1 On September 21, 2007, at approximately 8:30 a.m., two Waste Services (CA) Inc. Workers and their Supervisor met for breakfast at a restaurant near the intersection of 151 Street and 111 Avenue in Edmonton, Alberta. After breakfast, the Supervisor left the two workers to perform other duties and the two workers went outside to their respective vehicles.
- 6.2 The workers had earlier agreed, with the knowledge of their Supervisor to transfer a 28 cubic metre garbage bin from the truck trailer combination that was driven to the restaurant by the Senior Worker, to the Kenworth truck driven to the restaurant by the Junior Worker. After finishing their breakfast, the Supervisor left the location and the two workers had a brief discussion before proceeding to their respective vehicles.
- 6.3 The Senior Worker's truck trailer combination was parked facing south on the west side of 151 Street. The Junior Worker went to his Kenworth truck which was parked nearby and drove it a short distance to the west side of 151 Street. He positioned the Kenworth truck facing north of the Senior Worker's truck trailer combination so that both vehicles were positioned rear to rear (Attachment "A" Photographs 1,3 & 4).
- 6.4 The Junior Worker placed the gear shift of the Kenworth truck in the neutral position while he activated the power take off (pto) unit for his vehicle. During this time the Senior Worker entered the area between the two vehicles and began releasing the hold down mechanism that secured the garbage bin to the trailer. While releasing the hold down mechanism, the Senior Worker was facing away from the rear of the Junior Worker's Kenworth truck, (Attachment "A", Photographs 4 & 5).
- 6.5 The Junior Worker activated the pto unit and additional controls inside the cab of the Kenworth truck in order to raise the rails of the unit that would be receiving the garbage bin from the trailer connected to the Senior Worker's truck. The Kenworth truck then slowly rolled backwards and contacted the Senior Worker, pinning him against the rear of the trailer, seriously injuring him.
- 6.6 Upon realizing his truck rolled backwards and contacted an object, the Junior Worker looked out the rear window of his truck and observed the Senior Worker pinned against the rear of the trailer by his, the Junior Worker's, truck. The Junior Worker immediately placed his truck in gear and moved his unit forward a short distance. The Junior Worker then exited his vehicle and ran to the seriously injured Senior Worker. The Junior Worker contacted emergency services who responded to the scene. The Senior Worker was transported to hospital where he was pronounced dead upon arrival.

## **SECTION 7.0 ANALYSIS**

- 7.1 The direct cause of the Senior Worker's fatal injuries was the result of being pinned between the rear of the Junior Worker's truck and the rear of the truck/trailer combination the Senior Worker was facing.
- 7.1.1 The Junior Worker was seated in the driver's seat of the Kenworth truck with his attention focused on activating the pto and related controls. This was necessary to elevate the rails of the unit in order for them to fit under the edge of the garbage bin located on the trailer connected to the Senior Worker's truck, (Attachment "A" Photographs 4 & 5).
- 7.1.2 Without the knowledge of the Junior Worker, the Senior Worker attended the rear of the trailer connected to his truck and began to release the hold down mechanism that secured the garbage bin to the trailer. During this time as the Junior Worker was elevating the rails on his truck, it rolled backwards and contacted the Senior Worker pinning him against the rear of the trailer he was facing, seriously injuring him.

### **7.2 Contributing Factors**

- 7.2.1 There was a lack of a job specific hazard assessment that was understood by both workers for the garbage bin transfer from the trailer connected to the Senior Worker's truck to the truck being operated by the Junior Worker. The Junior Worker drove the Kenworth truck on one other previous occasion but did not operate the truck's pto and rail elevating equipment. This resulted in his unfamiliarity with the controls.
- 7.2.2 The Junior Worker had never performed a bin transfer from a trailer to a truck prior to the incident. He performed bin removals from the ground and in one case from an elevated platform onto a truck and worked alone when he previously performed these types of bin removals.
- 7.2.3 There was no communication between the Senior Worker and the Junior Worker regarding where they each would be located throughout the transfer and which worker would be in charge of the communication process. Immediately prior to beginning the transfer, the Junior Worker asked the Senior Worker how the transfer would be done.

The Senior Worker replied that the transfer would be similar to a bin pick up that the Junior Worker performed where the bin was situated on an elevated platform. The Junior Worker made no further inquiries to the Senior Worker about the upcoming transfer of the garbage bin from the trailer to the Junior Worker's truck and the Senior Worker offered no additional information.

- 7.2.4 The Junior Worker entered the cab of his truck and drove it from a nearby location to the west side of 151 Street, where he stopped approximately 6 m north from the rear of the trailer connected to the Senior Worker's truck. The Junior Worker then

reversed his vehicle until the rear of his truck was approximately 1 m from the rear of the trailer connected to the Senior Worker's truck. He then placed the gear shift of the Kenworth truck in neutral and turned his attention to activating the pto and related controls to elevate the rails on the Kenworth truck. He did not apply the parking brake for the Kenworth truck and did not have his foot on the brake pedal as he activated the pto to raise the truck's rails.

- 7.2.5 At this time, the Senior Worker had entered the area between the two trucks to release the hold down mechanism that secured the garbage bin to the trailer connected to his truck. This was necessary to allow the bin to be transferred, (Attachment "A" photograph 4).
- 7.2.6 The Kenworth truck that the Junior Worker was operating, gradually rolled backwards and contacted the Senior Worker, pinning him against the rear of the trailer connected to his truck, seriously injuring him. The road where the rear of both trucks was positioned had a measured grade of between 1 and 2.9 %. The Junior Worker did not realize the subtle grade of the road where the rear of his truck was located. He was also not aware of the location of the Senior Worker as he reversed direction of his truck to approximately 1 m from the rear of the trailer connected to the Senior Worker's truck.

## **SECTION 8.0 FOLLOW-UP/ ACTION TAKEN**

### **8.1 Alberta Employment and Immigration; Workplace Health and Safety Compliance**

- 8.1.2 Workplace Health and Safety Compliance issued orders for Waste Services (CA) Inc. to submit information to Workplace Health and Safety Compliance and to conduct an investigation into the incident. Waste Services (CA) Inc. was also issued orders to conduct a hazard assessment for transferring a garbage bin from a trailer to a truck and to ensure the safe movement of powered mobile equipment.

### **8.2 Industry**

- 8.2.1 Waste Services (CA) Inc. appealed the order to conduct a hazard assessment for the task of transferring a garbage bin from a trailer to a truck. The order was upheld by the Occupational Health and Safety Council in their rendered decision. Waste Services (CA) Inc. complied with the remaining orders issued to them by Workplace Health and Safety Compliance.

### **8.3 Additional Measures**

- 8.3.1 None at this time.

**SECTION 9.0      SIGNATURES**

Original Report Signed  
Lead Investigator

\_\_\_\_\_  
Date

Original Report Signed  
Investigator

\_\_\_\_\_  
Date

Original Report Signed  
Manager

\_\_\_\_\_  
Date

Original Report Signed  
Regional Senior Manager

\_\_\_\_\_  
Date

**SECTION 10.0      ATTACHMENTS:**

Attachment A      Photographs



Photograph #1 Shows the scene with the Kenworth truck on the right of the photograph and the truck/trailer unit with the blue garbage bin on top of the trailer behind the Kenworth truck. The arrow identifies one of the slightly elevated rails; its hydraulic lifting ram is identified by red and white reflective tape just behind the arrow.



Photograph #2 Shows the driver's side of the Kenworth truck, looking south on 151 Street.



Photograph #3 Shows the scene looking north on 151 Street. The 28 cubic metre garbage bin is visible on top of the trailer that is connected to the truck the Senior Worker drove to the location before he was fatally injured.



Photograph #4 Identifies the rear of the Kenworth truck on the left of the photograph with the rear of the trailer secured to the truck the Senior Worker was operating visible on the right of the photograph. The large arrow identifies the location where the Senior Worker was standing when he was contacted and pinned by the Kenworth truck. The small arrows identify the ends of the rails that are placed under the garbage bin to facilitate the transfer when the rail mechanism is tilted.



Photograph #5 Shows the rear of the trailer that the Senior Worker was pinned against. The arrows identify a portion of the hold down mechanism that he was unsecuring at the time of the incident.