The National Institute for Occupational Safety and Health (NIOSH)

Promoting productive workplaces through safety and health research

Fatal Accident Summary Report: Struck and Crushed By a Backing Forklift While Cleaning Up an Auto Salvage Yard

FACE 8418

Introduction

The National Institute for Occupational Safety and Health (NIOSH), Division of Safety Research (DSR), is currently conducting the Fatal Accident Circumstances and Epidemiology (FACE) Study. By scientifically collecting data from a sample of similar fatal incidents, this study will identify and rank factors which increase the risk of fatal injury for selected employees.

On Thursday, July 26, 1984, at approximately 10:15 a.m., a 23-year-old laborer wag killed while helping to throw scrap metal into junk cars which were to be crushed. The victim was apparently run over and crushed by an Allis Chalmers 605-B wheel loader. The attending medical examiner requested assistance from DSR on July 31, 1984.

Contacts/Activities

Subsequent to receiving notification, DSR sent a research team consisting of an epidemiologist, occupational safety specialist and a statistician to visit the incident site on August 1, 1984. Interviews were held ‘With the owner of the site and his employee who was operating the end loader and found the victim on the day of the incident. A subsequent visit was made to the office of the victim’s employer on August 9, 1984 by a – safety engineer and a statistician. Information obtained from these interviews pertained to the employer’s history and activities, safety and training programs, injury record and incident scenario. The incident site and forklift were examined in the presence of the employee who found the victim. During the examination 35 mm pictures and color video tape recordings were made of the forklift and the incident site.

Synopsis of Events

The accident site is a combination Volkswagen repair shop and auto junk yard. The victim was an employee of another auto junk yard operator whose crusher, forklift, and two employees had been hired to help clean up and crush cars for a short period of time. The victim was new on the job, got no safety training from this new employer, and had worked on the job less than four days before the incident. On the day of the incident, July 26, 1984, the victim was throwing scrap metal into junk cars before they were carried over to the crusher. There were two vehicles operating in the area, an endloader which was operating slightly downhill from the scene of the incident, and a forklift (payloader) which was operating in close proximity to the victim and the crusher. The forklift would remove gas tanks and tires from the junked vehicles and then

take the vehicles to the crusher. The accident site was an open dirt covered area surrounded by trees and brush with a slight 5 to 10 degree slope. No one saw the incident occur. It appears that the victim was unnoticed for at least 10 minutes after the incident. The victim was found by the endloader operator lying with his feet uphill to the north, face down with his head crushed. Nearby matches and cigarettes were found lying on the ground. The forklift operator who ran over the victim was an experienced operator said to have about 10 years experience. The forklift (payloader) has the operator's cab windows over six feet from the ground. The rearward visibility of the forklift was severely limited by the over 6 ft. height of the engine compartment and a vertical air intake. The forklift was equipped with a functional backup bell. The victim was less than 5 foot 6 inches tall and had some loss of hearing in one ear. A county investigator and medical examiner were called to the scene. The medical examiner declared the victim dead at the scene. The death has been ruled accidental.

General Conclusions and Recommendations

This unfortunate accident where a pedestrian is struck by a forklift is the most frequently occurring forklift incident, involving over 25% of all the forklift incidents. It appears that this fatality may have been caused by several factors. First, the victim was new on the job, and had not received any safety training about hazards on the job, particularly regarding the limited visibility of forklifts, and the necessity of watching for the forklift when its backup bell is ringing. Second, the forklift had limited visibility for its operator while backing. Third, the victim may not have heard the backup bell due to his hearing impairment. Fourth, the victim may have been standing with his back to the forklift-, and may have been lighting a cigarette when he was run over. Finally, the experienced operator did not look adequately to see what was in his path before he backed up. This accident might have been prevented if the victim had been instructed by his employer about the hazards of working around forklifts. Also, the operator of the forklift should have been trained to turn completely around and look to both sides before backing. The employer, victim, forklift operator and forklift manufacturer all contributed some element to this incident.

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