FACE Investigation 91CO024

SUBJECT: A Golf Course Greenskeeper is Killed when a Tractor Rolled over Him

SUMMARY:

The 75-year-old golf course greenskeeper was killed while installing rotary mowers on a Jacobsen F10 tractor. The victim was standing between the front and rear wheels of the tractor when he started the tractor to supply power to the power take-off (PTO). The tractor was in gear when the engine was started. The vehicle lurched backward, knocking the victim to the ground. The front wheels rolled over his chest. Two golfers in the immediate area heard him scream for help and rushed to his assistance. A local ambulance was called and the victim was transported to the local hospital where he expired 85 minutes later. The Colorado Department of Health (CDH) investigator concluded that to prevent future similar occurrences, employers should:

* retrofit the tractor with a switch to prevent starting when the vehicle is in gear;

* develop, implement and enforce a comprehensive written safety program;

* survey the work site to identify hazards. All employees should then be informed of the possible hazards and encouraged to report any unsafe work conditions.

INTRODUCTION:

On April 25, 1991 a municipal golf course maintenance area was the site of a fatal tractor run-over incident. The investigation of this work-related fatality was prompted by a report of the incident to the Colorado Department of Health (CDH) by the County Health Department. The golf course managers, coworkers, and owners were interviewed. Reports were obtained from the local police department, hospital, ambulance service, and the county coroner. Photographs were taken at the site of the incident.

The employer in this incident is a municipality that employs over 400 personnel. The city has a full-time risk manager. The recreation department that manages the golf course did not have specific written safety rules that covered this type of incident, although the vehicle manufacturers equipment manual addressed the issue. Employee training is on-the-job.

INVESTIGATION:

The 75-year-old victim was connecting rotary mower units to a 1964 Jacobsen F10 tractor. The victim was standing on the ground between the front and rear wheels in a narrow space in front of the mower units. He had to activate the power-take-off (PTO) to adjust the mower unit. He reached over to the ignition and turned the key without first checking to see if the transmission was in the neutral position. When he activated the engine, the transmission was in reverse gear. The vehicle lurched backward, knocking the victim to the ground, and then proceeded in reverse. The front wheels of the tractor rolled over the victim. Two golfers in the area heard his cry for help as did two fellow workers. They rushed to his assistance. A call was placed to 911 and an ambulance was dispatched to the scene arriving 16 minutes after the call was received. The victim was transported to the local medical center where life saving attempts were unsuccessful.

CAUSE OF DEATH:

The cause of death was determined by the coroner to be massive traumatic abdominal, pelvic, and chest injuries.

RECOMMENDATIONS/DISCUSSION:

Recommendation #1: The tractor should be retrofitted with a switch to prevent starting when the vehicle is in gear.

Discussion: Newer models of tractors owned by the city are factory-equipped with switches that prevent the vehicle from being started when the transmission is in gear. The retrofitting of all older vehicles with this type of switch would eliminate the possibility of this type of incident in the future.

Recommendation #2: Employers should conduct a job site survey on a regular basis to identify potential hazards, implement appropriate control measures, and provide subsequent training to employees that specifically addresses all identified site hazards.

Recommendation #3: Signs should be posted on equipment to designate that a hazard exists.

Discussion: The different starting features of various pieces of equipment owned by the golf course enhanced the probability of a hazardous event taking place. Placards should be placed on the equipment that can be started with the transmission in gear to inform and remind employees that a hazard exists.

Recommendation #3: Employers should develop, implement, and enforce a comprehensive written safety program.

Discussion: This employer did not have a written comprehensive safety program. All employers should evaluate the tasks done by workers to identify all potential hazards. The employer should then develop and implement a safety program addressing these hazards, provide worker training in safe work procedures and implement appropriate control measures.

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