September 25, 1995

Nebraska FACE Investigation 95NE025

SUBJECT:

Construction Worker Crushed under Skid Steer Loader Bucket.

SUMMARY:

A 30 year-old carpenter was crushed to death beneath a skid steer loader he was operating. The victim was operating a skid-steer loader he had never been trained on and it appears that in the process of trying to figure out how to operate it, he lowered the bucket while he was standing in front of the machine. He was found, crushed under the bucket, by a co-worker. He was pronounced dead at the scene.

The Nebraska Department of Labor (NDOL) Investigator concluded that to prevent future similar occurrences employers and employees should:

* Ensure that safety devices and physical safeguards on equipment are never bypassed or removed.

* Establish a comprehensive training program for all personnel operating specialized machinery to include “hand-on” training and documentation.

* Establish and enforce a thorough vehicle maintenance and inspection program.

PROGRAM OBJECTIVE:

The goal of the workplace investigation is to prevent work-related deaths or injuries in the future

by a study of the working environment, the worker, the task the worker was performing, the tools the worker was using, and the role of management in controlling how these factors interact.

This report is generated and distributed **solely** for the purpose of providing current, relevant education to the community on methods to prevent occupational fatalities and injuries.

INTRODUCTION:

On May 25, 1995, at approximately 11:45 am, a 30 year-old carpenter died as the result of injuries he sustained when crushed between the bucket and frame of a skid steer loader. The Department of Labor was first notified of this incident by reading about it in a newspaper. The company experiencing this fatality chose not to cooperate with the FACE investigation, so this report is based on sheriff’s reports and OSHA information. The Nebraska FACE Investigator

met with OSHA investigators and was briefed on the incident. There were no witnesses to this incident.

INVESTIGATION:

The victim had been employed with the company for three months. He was performing duties as a carpenter. The company was in the process of constructing a house.

The victim had called his employer to let him that he only had approximately half a days work left and would like to finish out the day. The employer told the victim to fill in dirt around the house foundation where the ground had settled. According to a co-worker, the victim then went outside to move the dirt. A short time later the victim asked the co-worker if he knew how to get the bucket of the skid steer loader fixed. After stating he didn't know how to operate the loader, the victim returned outside. Later the same co-worker went outside to look for the victim and found him trapped under the bucket of the loader. The co-worker ran to a neighboring residence and called 911.

After reading sheriff's and OSHA reports, it is my opinion that the victim, while standing on the ground, under the bucket, facing the loader, was trying to figure out how the bucket operated. From the position the victim was found in, it appears he was standing in front of the machine, pressed the foot pedal which activates the lift arm, and the bucket assembly lowered, knocking him to his knees and then crushing him. Prior to the victim exiting the machine, he failed to shut off the engine and also failed to lower the bucket. He could have left the bucket in the raised position had the lift arm stops been engaged, but they were not.

When the Sheriffs Department responded to the accident call, the employer was present. The report states that the employer had advised the victim to move the dirt and to use the skid steer loader to do it. The employer told OSHA representatives that the victim had received no training on the skid steer loader.

Upon investigation of the skid steer loader, is was determined that the seat belt safety device had been bypassed. This seatbelt interlock prevents the foot pedals from activating, which in turn allows the lift arms to raise and lower, unless the seatbelt is fastened. A rag was stuffed under the seatbelt safety arm, which allowed the skid steer lift arms to operate without the seatbelt being fastened. This allowed the operator to exit the machine with the lift arms still operable. A manufacturer's representative checked out the machine after the incident and everything worked properly. When the rag was removed from the seatbelt safety arm, the interlock worked as designed.

CAUSE OF DEATH:

The cause of death, as stated on the death certificate, was internal injuries.

RECOMMENDATIONS/DISCUSSION:

Recommendation #1: Ensure that safety devices and physical safeguards on equipment are never

bypassed or removed.

Discussion: Had the seatbelt safety interlock on this skid-steer loader not been bypassed, this incident may have been prevented.

NOTE: This was one of three skid-steer fatalities in Nebraska in a 31-day period and in each case safety devices or physical safeguards had been bypassed or removed.

Recommendation #2: Establish a comprehensive training program for all personnel operating

Discussion: A specific training plan should be developed for machinery, such as skid-steer loaders. This plan should cover all basic operating procedures and all safety precautions. Had the victim in this incident been thoroughly trained on this particular skid-steer loader this incident might have been prevented. Training in this case should have addressed the importance of safety devices and physical safeguards as well as the danger of exiting the machine with the bucket in the raised position without engaging the lift arm stops. This particular skid-steer was clearly placarded with operator warnings as shown below.

Recommendation #3: Establish and enforce a thorough vehicle maintenance and inspection

Discussion: 29CFR 1926.601(b)(14) states all vehicles in use shall be checked at the beginning of each shift to insure they are in safe operating condition and free of apparent damage that could cause failure while in use. It specifically addresses seatbelts and safety devices. Had this skid-steer loader been given a thorough pre-use inspection, and not put into service until it was safe to operate, this incident may have been prevented.

REFERENCES:

1. Office of the Federal Register National Archives and Records Administration, Code of Federal Regulations, Labor, 29CFR 1926.601. 1994

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