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The National Institute for Occupational Safety and Health (NIOSH)



Truck Tarper Slips Off Wet Tarp and Falls to His Death

New Jersey Case Report: 90NJ002 (formerly NJ9001)

SUMMARY

On March 30, 1990, a 51-year-old male trucking company employee in New Jersey slipped off a wet tarp covering a load on a flat bed truck and fell 59½ inches to a concrete floor. He died on March 31, 1990.

Although he had performed this task numerous times, this evening the tarp was wet and his shoes were slippery. FACE investigators concluded that, in order to prevent future similar occurrences, employers and employees should:

- perform the tarping in pairs,
- wear shoes with non-skid soles and adequate tread,
- evaluate each job task and prepare written safety directions,
- store tarps in an area protected from the weather.

INTRODUCTION

The FACE team of the New Jersey Department of Health was informed on April 2, 1990 of the fatality by the county medical examiner. The FACE team informed OSHA of the fatality and a joint inspection with OSHA was conducted on April 3, 1990. The site of the fatality was inspected and the trucking company's terminal was visited in order to interview company officials. Photographs were taken. Witnesses were interviewed by the OSHA safety specialist.

The victim had been employed for 3½ years as a tire changer and minor mechanic by the trucking company. He also acted as a substitute tarper. The company has been incorporated since 1964 and employs 125 people at two sites. Their major contract is with a manufacturer of building construction material, located in the same city.

The company employs a person who is in charge of safety; they hold periodic safety meetings, the last of which was three weeks prior to the fatality. There are no written safety instructions pertaining to tarping; they consider tarping to be an unskilled activity and instruction is given on the job. If necessary, temporary employees are utilized to do the job. The deceased had applied tarps to loaded trucks on numerous occasions. The company tarps 40 truckloads a day, 5 days per week.

INVESTIGATION

The usual procedure for loading and tarping a truck is as follows: A flatbed truck is backed into an enclosed "well" at the loading dock by a "jockey" (the height of the loading dock and flat bed truck surface differ by several inches). Building construction material is loaded onto it by the manufacturer's employees using a fork lift. Two tarps, made of polyester coated with polyvinyl chloride and measuring approximately 16 feet wide and 24 feet long, are dropped onto the load by the fork lift. The tarper climbs onto the load to unfold and position the rear tarp; he then climbs off the load to the loading platform in order to tie the tarp to the sides and rear of the truck; the worker climbs back onto the load and repeats the process with the front tarp. The process is carried out by one worker.

On March 30, an intermittently rainy evening, the victim completed his shift at the truck terminal and went to the loading dock of the manufacturer of building construction material where his son was employed as a tarper for the first time.

The victim and his son had positioned and secured the rear tarp over the truck load. As they stood on the wet tarp, the victim shook out the forward tarp which had iced. As he was doing this he slipped and fell 59½ inches to the concrete floor. The son immediately went to his aid and found his father unconscious and bleeding. Emergency services were summoned and he was transported to a hospital where he died the next evening.

CAUSE OF DEATH

The cause of death was listed by the medical examiner as myelocervical injuries with fracture of the spine, compression of the spinal cord and bilateral pulmonary congestion and edema.

RECOMMENDATIONS/DISCUSSIONS

Recommendation #1: The tarping process should be performed by two persons, especially when the tarps are wet. No one should stand or walk on a wet tarp.

Discussion: After the heavy tarps are positioned on the loaded truck by a fork lift, two workers should position and secure the tarps while they stand on the loading dock at the sides of the loaded truck. This prevents the need to stand on a wet or slippery surface. At this company, two trucking company employees are always present.

Recommendation #2: Shoes should have non-skid soles with adequate tread.

Discussion: The victim's shoes were old and the soles coated and crusted with a sufficient thickness of the manufacturer's raw material (which becomes slippery when wet) that the soles were smooth with no change in contour at the heel. The lack of shoe tread, as well as the wet tarp surface, provided the worker with no slip protection.

Recommendation #3: Each job task should be evaluated for safety hazards. Oral and written safety directions should be given to all employees.

Discussion: Evaluating each task for hazards is the basis of a comprehensive safety program. Safety directions should be in writing and clearly understood by each person performing a task.

Recommendation #4: Tarps should be stored in an area protected from the weather.

Discussion: Storage of the truck tarps in a protected area would decrease the possibility of the tarps becoming wet or iced.

Recommendation #5: Written safety directions should be issued by the tarp manufacturers and suppliers. A warning such as "Use caution. Slippery when wet." Should be stamped in a visible place on the tarps.

Discussion: The supplier, who sells tarps to the company, stated verbally to a FACE team member that the tarp is very slippery, like walking on “wet fiberglass”. He stated that the tarp is “not something designed to be walked on” and “would advise extra caution if walking on it when wet”. The Material Safety Data Sheet (MSDS) addresses only hazards due to excess heat. Written safety instructions should accompany all newly issued tarps.

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