

F.A.C.E. INVESTIGATION REPORT

Fatality Assessment and Control Evaluation Project

FACE #94-NJ-003-01
Laborer Dies After Falling 8 Feet
While Spreading A Tarp on a Trailer



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FROM: Fatality Assessment and Control Evaluation (FACE) Project
New Jersey Department of Health (NJDOH)

SUBJECT: FACE Investigation #94-NJ-003-01
Laborer Dies After Falling 8 Feet While Spreading A Tarp on a Trailer

DATE: June 22, 1994

SUMMARY

On January 11, 1994, a 54 year-old male laborer was killed after falling eight feet from a flatbed trailer. The incident occurred after the victim had loaded the trailer with pallets of bagged cement. He had climbed on top of the pallets to spread a tarp over them when he apparently slipped and fell to the ground. He suffered severe head injuries and died the next day. NJDOH FACE investigators concluded that, in order to prevent similar incidents in the future, these safety guidelines should be followed:

- o Tarping should be done by two persons in wet conditions or adverse weather.
- o Employers should conduct a job hazard analysis of all work activities with the participation of the workers.
- o Employers should provide a safe means of access to the trailers.
- o Employers and employees should ensure that tarps are stored in an area protected from the weather.
- o Tarp manufactures should issue written safety directions on tarp use and hazards.

INTRODUCTION

On January 13, 1994, NJDOH FACE investigators were notified by the county medical examiner's office of a death resulting from a work-related fall. After contacting the company, a FACE investigator conducted a site visit on March 18, 1994 to interview the employer and to examine and photograph the incident site. Additional information was gathered from the Mine Safety and Health Administration (MSHA) investigation report, the area OSHA office, and the police and medical examiner's reports.

The employer was a sand mine located in a rural area. The mining operation at the site had been closed down, and the company now purchased and packaged industrial grade sand, gravel, and concrete. The company had been in business at this site for about 70 years and employed 7 workers in a single shift operation. Although the company had an employee who was responsible for safety, they did not have a written safety and health program. The victim was a 54 year-old general production worker who normally worked as a bagger but was also experienced in loading trailers. He had worked for the company for 17 1/2 years and was considered by the manager to be an excellent worker.

INVESTIGATION

The incident occurred outdoors at the company's shipping yard located near the main production buildings. Sand, gravel, and other building materials were bagged inside the plant and loaded onto wooden pallets (each pallet held fifteen 75-pound bags). The pallets were then moved outside to the shipping yard where they were positioned for easy retrieval by the truck loader. As empty trailers returned from deliveries, they were lined up side-to-side in the shipping yard. The trailers were spaced about 15 to 20 feet apart in the yard to allow room for the truck loader's fork lift to move between them. Each trailer had several plastic coated fabric tarpaulins that were folded and stored on the trailer bed. The usual procedure for loading the trailer was for the loader to pick up a pallet of material with a fork lift and set the pallet on the trailer. When the trailer was loaded with 15 pallets, the loader climbed on the trailer and lifted the 75 pound tarps onto the top of the pallets. Climbing onto the pallets, the loader kicked or otherwise spread the tarp over the load and secured it with bungee cords. A truck later hooked onto the trailer and delivered the load. The company loaded about 20 trailers a day using this method.

The day of the incident was a clear, cold Tuesday afternoon. Conditions at the yard were wet and muddy following a previous winter storm, and it was reported by the plant manager that some of the trailers were returning with ice on them. The victim, who was returning to work a few days early from vacation, arrived for work at about 7 a.m. After checking for his work assignments, he started loading the trucks with a fork lift. A co-worker was also using a forklift to move pallets of material from the nearby plant and position them for the victim to load. The two worked through the morning without incident, loading and tarping about six trucks.

There were no witnesses to the incident. Sometime after 1:15 p.m., the victim was seen placing the last pallet on a trailer. About seven minutes later, a co-worker was coming out of the plant with a pallet of material and saw the victim lying unconscious on the ground. He went into the office and told the secretary (who was an Emergency Medical Technician) who went to aid the victim. The victim, who was injured on his face and head, regained consciousness and became agitated. The police, rescue squad, and paramedic units arrived and treated the victim who was transported to a nearby hospital. From there he was airlifted to the area trauma center where he was placed on life support. He was pronounced dead at 10:30 a.m. the following day.

It is not known precisely why the victim fell. Evidence at the scene indicates that the victim had completed tarping half the load and was spreading a tarp over the remaining pallets when he fell. The plant manager states that there was no obvious ice on the trailer or tarp, and the police noted rock salt on the trailer bed.

CAUSE OF DEATH

The attending physician at the trauma center attributed the cause of death to a massive subdural hematoma.

RECOMMENDATIONS/DISCUSSIONS

Recommendation #1: Tarping should be done by two persons in wet conditions or adverse weather.

Discussion: Icy or wet tarps can be extremely slippery, making tarping hazardous. In wet or adverse conditions or when the tarps are wet, it is recommended that tarping should be done by two workers. Each worker should position and secure the tarp while standing at opposite sides of the loaded truck, avoiding the need to stand on a wet or slippery tarp. No one should ever stand or walk on a wet tarp.

Recommendation #2: Employers should conduct a job hazard analysis of all work activities with the participation of the workers.

Discussion: It is recommended that employers conduct a job hazard analysis of all work areas with the employees. A job hazard analysis (as described in the attached OSHA publication) should examine all work areas for fall, electrical, chemical, or other hazards the workers may encounter. After identifying the hazards, the employees should be instructed on how to correct or avoid them. We recommend that small employers hire a safety consultant to conduct their initial job hazard analysis. The NJ Department of Labor OSHA Consultative Service may provide this service free of charge (see references).

Recommendation #3: Employers should provide a safe means of access to the trailers.

Discussion: It was noted during the investigation that employees had to climb onto the trailers without a ladder. The FACE project recommends that the employer provide a safe means of access to the trailers, such as a ladder or work platform.

Recommendation #4: Employers and employees should ensure that tarps are stored in an area protected from the weather.

Discussion: The tarps were stored on the back of the trailers, exposing them to rain and snow. Storage of the tarps in a protected area would decrease the possibility of the tarps becoming wet or iced. Wet tarps should also be dried before storage.

Recommendation #5: Tarp manufactures should issue written safety directions on tarp use and hazards.

Discussion: Written safety instructions should accompany all newly purchased tarps. A warning such as "Use Caution, Slippery When Wet" should be visibly stamped on both sides of the tarps.

REFERENCES

New Jersey Department of Labor, OSHA Consultative Service. CN 386, Trenton NJ 08625-0386. (609) 292-3922

ATTACHMENTS

Job Hazard Analysis. OSHA 3071, US Department of Labor, Occupational Safety and Health Administration, Washington DC. 1988.

FACE Facts: Worker Dies From Fall Off Wet Tarp. NJDOH FACE Project, CN 360, Trenton NJ.