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Electrician Killed After ATV He Was Operating Overturned

MN FACE Investigation 99MN03601
DATE: March 29, 2000

SUMMARY

A 51 year-old electrician died of injuries sustained when the all terrain vehicle (ATV) he was driving overturned. Shortly before the incident occurred, the victim and another electrician were working on an electrical project at one facility on the business property. While working they determined that they needed to go to another facility on the property to get a part they needed. The two workers used separate ATVs to travel between the two facilities. They drove along a portion of a dirt test track near the second facility which had a slight "uphill" slope before abruptly changing to a steep "downhill" slope. As the victim's ATV travelled across the point where the slope changed from uphill to downhill, he lost control of the vehicle and it overturned. The coworker who was driving approximately 20 to 30 yards behind the victim stopped his vehicle and called rescue personnel who arrived shortly after being called. They transported the victim to a local hospital where he died the following day. MN FACE investigators concluded that, in order to reduce the likelihood of similar occurrences, the following guidelines should be followed:

- employers should ensure that workers wear approved helmets and eye protection when operating recreational vehicles;
- employers should ensure that workers do not operate recreational vehicles at excessive speeds; and
- employers should design, develop, and implement a comprehensive safety program.

INTRODUCTION

On October 6, 1999, MN FACE investigators were notified of a work-related fatality that occurred on October 4, 1999. Although a site investigation was not conducted a telephone interview with an employer representative and information transmitted via facsimile provided specific information concerning this fatality. During MN FACE investigations, incident information is obtained from a variety of sources such as law enforcement agencies, county coroners and medical examiners, employers, coworkers and family members.

The company the victim was employed by manufactured recreational vehicles such as all terrain vehicles (ATV) and snowmobiles and had been in business for 45 years. They employed 1800 workers at the facility where the incident occurred. A comprehensive safety program that required all employees to receive training in safe ATV operation was in place. Customers were also required to receive training before they could get a warranty on a vehicle. The victim had worked for the company as an electrician for 12 years.

INVESTIGATION

On the day of the incident the victim and a coworker, both employed as electricians, were working at a company owned facility known as plant #1. They were working on an electrical disconnect panel for several new engineering trailers located near plant #1. While working on the panel, they realized that they had to go to a facility known as plant #2 to get a part they needed. Plant #2 was located approximately ¼ mile west of plant #1 on the business property. Parked in the immediate vicinity of the disconnect panel were 30-40 new company owned ATVs. The workers decided to take two of the ATVs to travel between the two locations. Although it was unusual for workers to travel between the two plants, when travel was necessary, ATVs were not the usual mode of transportation. In this incident, the decision to use the ATVs may have been based on the need to move several of the vehicles that restricted access to the electrical disconnect panel.

The ATVs that the victim and the coworker used were new company owned four wheel drive vehicles. Each ATV was equipped with a 334 cubic centimeter engine and an automatic E-Z shift variable transmission. The weight of each ATV with fuel and oil was approximately 700 pounds. They measured 81 inches in length, 46 inches in width and 47 inches in height. The workers were not wearing helmets at the time of the incident.

For unknown reasons, they drove the ATVs beyond plant #2 on a segment of a dirt test track that was located west of plant #2. The victim was driving approximately 20 to 30 yards in front of his co-worker. They drove along a portion of the test track that was approximately 60-70 feet long and had a slight “uphill” slope. At the top of the incline or “uphill” slope, the terrain of the dirt test track abruptly changed to a “downhill” slope with an incline that was approximately 40-45 feet long and a slope of approximately 30 to 35 degrees. When the victim’s ATV travelled over the top of the incline, it apparently became airborne for a short distance as it dropped to the downhill portion of the test track. The coworker saw the rear wheels of the victim’s ATV rise a few inches off the ground as the ATV disappeared on the downhill side of the test track’s terrain. The coworker slowed and stopped his ATV when he arrived at the top of the “uphill” slope. He saw the victim laying on the ground about 30 feet down the incline with his ATV rotated 180 degrees and laying on its side next to him.

The coworker drove down to the victim and immediately used a two-way radio to call for help. First responders from plant #1 and plant #2 responded as well as local emergency medical personnel who arrived at the scene shortly after being notified of the incident. The victim was transported to a hospital where he died from his injuries the following day.

The coworker estimated that he and the victim were travelling between 10-15 miles per hour prior to and at the time of the incident. There was a gap approximately 20 inches long between the location where the victim’s ATV became airborne and the location where the tire tracks reappeared when it hit the ground. Several marks on the ground on the downhill slope of the test track indicated that the ATV may have flipped over forward when it struck the ground. Shortly after the incident occurred, both ATVs were quarantined and inspected and everything was in proper working order on both vehicles.

CAUSE OF DEATH

The cause of death from the death certificate was not available when this report was completed.

RECOMMENDATIONS/DISCUSSION

Recommendation #1: Employers should ensure that workers wear approved helmets and eye protection when operating recreational vehicles.

Discussion: Recreational vehicles such as ATVs (all terrain vehicles), snowmobiles, and motorcycles do not offer the protection that an enclosed vehicle does and therefore operators and passengers should wear approved helmets and eye protection when using them. The employer involved in this incident had a policy requiring the use of helmets when riding on an ATV, but the victim was not wearing a helmet or using eye protection at the time of the incident. If the victim had been wearing a helmet, this fatality may have been prevented.

Recommendation #2: Employers should ensure that workers do not operate recreational vehicles at excessive speeds.

Discussion: Recreational vehicles such as the all terrain vehicle involved in this incident should never be operated at excessive speeds. It is important that the speed is right for terrain, visibility and operator's experience. In this incident excessive speed did not appear to be a factor, but in many incidents involving ATVs it is.

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

Discussion: Employers should ensure that all employees are trained to recognize and avoid hazardous work conditions. A comprehensive safety program should address all aspects of safety relate to specific tasks that employees are required to perform. OSHA Standard 1926.21 (b) (2) requires employers to "instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his/her work environment to control or eliminate any hazards or other exposure to illness or injury." Safety rules, regulations, and procedures should include the recognition and elimination of hazards associated with tasks performed by employees.

REFERENCES

1. Office of the Federal Register: code of Federal Regulations, Labor, 29 CFR Part 1926.21 (b) (2), U.S. Department of Labor, Occupational Safety and Health Administration, Washington, D.C., July 1, 1994.

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