

Case 161. 18-year-old wingwalker/guideperson at an airport was killed when he was struck by a 65,000-pound Equi-Tech push back tractor tug.

An 18-year-old male wingwalker/guideperson at an airport was killed when he was struck by a 65,000-pound Equi-Tech push back tractor tug. The decedent was part of a three-person crew (tug operator and two wingwalkers) that pushed an attached aircraft from the airport terminal to the taxi area. The aircraft was connected to the front of the tug by a tow bar, which pushed from the front of the tug to the front nose of the aircraft. The rear counterweight area of the tug was eight feet wide and approximately 55 inches tall. The rear base of the tug was approximately 11 inches from the ground. On top of the center of the counterweight was the engine hood. The tug was equipped with a back up alarm of unknown decibel level. The tug's side view mirrors (driver and passenger) were located 66 inches above the ground and measured 6.5 inches wide and 10 inches in length. The mirrors did not extend beyond the width of the tug's rear counterweight area.

Wingwalker responsibilities were to walk along the aircraft wings to guide, observe, and protect the aircraft from striking anything and anything striking it. Once the aircraft was guided out onto the taxiway, the wingwalker on the tug driver's left side was assigned to uncouple the aircraft from the tug. The wingwalker on the driver's right side signaled the aircraft to set its brake. The decedent was the wingwalker on the driver's left side. The decedent, with the assistance of the tug operator, uncoupled the aircraft. After the aircraft was uncoupled, the decedent walked over to the right wingwalker's location and indicated that the aircraft was successfully uncoupled. The aircraft moved away. The decedent walked to the driver's side of the tug and handed the tug operator his guide wand (flashlight with a red cone attached) and communication headset. The decedent began to walk toward the airport. As the tug began to move in reverse (back up) on an angle towards the airport, the decedent walked behind the tug and was struck and run over by the right side of the tug.

The police report states while they were examining the decedent's personal items they heard music emanating from the decedent's iPod. The music was loud enough to be heard by the officers from four feet away. The decedent was wearing a fluorescent safety vest. MIOSHA noted with background airport noise and the wearing of ear muffs that the tug's backup alarm would most likely not be heard by an individual walking behind it. All of the tug's right rear lights (taillight, brake light and backup light) were not functional.

MIOSHA General Industry Safety and Health Division issued the following Serious citations.

SERIOUS:

ACT 154 PA OF 1974, SEC. 11 (a)

Furnish to each employee employment and a place of employment, which is free from recognized hazards that are causing or are likely to cause death or serious physical harm to the employee.

Employer failed to provide a safe place of employment in that the employer allowed employees to operate pushback tugs in a highly hazardous traffic area to move aircraft in close proximity to aircraft and ground employees without adequately training employees on the hazards, safeguards and safe operating procedures. Operators did not receive adequate training to ensure that they safeguard all employees at all times.

Among other methods, one feasible and acceptable abatement method to correct this hazard would be to 1) Provide adequate training to all tug operators, and equipment operators, on all safety procedures to be followed during all driving operations, back up and turning operations of tugs and ground equipment; 2) Establish a performance and testing program to insure that all tug and equipment operators understand the hazards and safeguards of operating the equipment; 3) Evaluate all training procedures and equipment operators periodically and include any changes necessary and 4) Establish a permit issuance system, where actual operators permits are issued to each operator to insure that they understand the training and are updated on knowledge of the operations of the equipment.

SERIOUS: ACT 154 PA OF 1974 SEC 11(a)

Furnish to each employee employment and a place of employment, which is free from recognized hazards that are causing or are likely to cause death or serious physical harm to the employee.

Employees exposed to the hazards of being struck by aircraft and ground equipment with the potential of being seriously injured or killed. An employee was walking back toward terminal after guiding aircraft out of taxiway and was struck by tractor/tug backing up, causing serious crushing injuries and death.

Among other methods one feasible and acceptable abatement method to correct this hazard would be to 1) Provide adequate training to all wingwalkers/guidepersons on all safety procedures to be followed during all operations when working around tugs and equipment including back up and turning operations of the tugs and ground equipment; 2) Evaluate all procedures periodically and include any changes necessary; 3) Establish a danger zone for the wingwalkers/guidepersons and keep them out of the danger zone; 4) Insure that all wingwalkers/guidepersons and all tug and equipment operators maintain on going communication at all times during operations and; 5) Instruct employees and prohibit the use of all radios, Walkmans, iPods, or any other music devices, to insure concentration on work activities during all field operations.

MIOSHA General Industry Safety and Health Division also issued a Safety Recommendation.

It is recommended that the firm establish and institute an inspection and repair program for all pushback tugs to insure that all lights, backup alarms and all other safety equipment is operational and to insure that the equipment is maintained in a safe manner. It is also recommended that you contact the manufacturer of the Equi-Tech Tug and discuss

potential modifications that include but are not limited to installing a louder, more audible backup alarm system, a rearview camera to insure more operator visibility when backing up and to install larger side view mirrors so that they extend more outward from the vehicle for better viewing.