

A 23 year old male employee was struck by an unsecured vinyl roll up door of a container as it was being transported by tug along the input line. Containers are offloaded from aircraft, placed onto a dolly, and transported via a motorized tug to the Courtyard Input Area.

The Tug Operator transports 3-4 containers on its respective dolly in what is referred to as a dolly string. The dolly string is transported to one of four input lines in the Courtyard Input Area for unloading. Each line is provided with a raised work platform, also referred to as the grating or catwalk, and a 3-belt input conveyor system is provided between the gratings of Line #1 & Line #2 and Line #3 & Line #4, respectively.

With regards to the incident, Line #2 is approximately 220 feet in length with an approximately 32 inch wide work platform, 25 inches of the platform being the actual grating. The grating is approximately 14" above the ground level. The Tug Operator positions a dolly string so that the containers are in direct contact with the grating. A team of approximately 10-18 employees is positioned along the grating. When the dolly string has been pulled as far as possible along the grating and is stopped, employees open the container door(s), unload the packages from the container, and place them onto one of the three conveyor belts according to type and or size of the package. Typically there are 3 dolly strings, approximately 9-12 containers, positioned along each of the four lines during the unloading process.

A Line Call system is utilized on each of the lines to communicate to employees regarding dolly string movement. The Line Call System consist of 3 verbal cues, Standby, Clear, and Go, with corresponding hand signals that are relayed along the line to the employees. When the dolly string at the front of the line has only a few packages remaining, the employees on that dolly string communicate "Standby" to other employees both verbally and with a hand signal of holding a fist in the air. The signal lets other employees on the line know that the dolly strings are preparing for movement. After the last package of the first dolly string has been unloaded; the employees at the front of the line communicate "Clear" verbally and using a signal of crossing forearms at head level. This signal lets the employees know to stand clear of the containers with their backs against the railing of the of the conveyor system, facing the containers. When all

employees are clear of the containers, "Go" is communicated to the Tug Operator verbally and with a signal of index and middle finger waving the Operator forward. The Tug Operator then sounds the horn and moves the dolly string forward.

It was revealed that once a dolly string at the front of the line is empty, the remaining dolly strings will move forward even if containers are not fully unloaded. Just prior to the incident, two dolly strings at the front of Line #2 were empty; therefore, moved off of the line in preparation to move the third dolly string forward. There was freight remaining in the containers of the third dolly string when the Line Call "Standby" was given. Container AAD 21050 FX, involved in the incident, was the fourth and last container in the third dolly string.

An employee was unloading this container when "Standby" was communicated; therefore, he put the vinyl roll-up door down; however, did not engage the door bar flap in order to secure the door in the closed position. Upon receiving the "Go" signal, the Tug Operator moved the dolly string forward. Prior to the tug operator moving the dolly string, eight (8) employees, including the Team Leader, began walking to the front of the line (backs to the moving dolly string) instead of standing with their backs again the conveyor.

Because they started walking prior to the tug moving, the employees were in view of the Tug Operator; the victim was the last in line of employees walking. It was learned from video footage that the first 3 containers of the dolly string moving past the employees showed packages shifting and falling out of container AAD 21050 FX which caused the roll-up vinyl door to swing out over the grating. The aluminum bar of the vinyl roll-up door struck the victim on the back of his leg as he walked causing him to fall against the metal railing of the 3-input belt conveyor system.

Citation(s) as Originally Issued

A complete inspection was conducted at the accident scene. Some of the items cited may not directly relate to the fatality.

Citation 1 Item 1

Type of Violation: Serious

\$7,000

TCA 50-3-105(1): The employer did not furnish employment and a place of employment which were free from recognized hazards that were causing or likely to cause death or serious physical harm to employees:

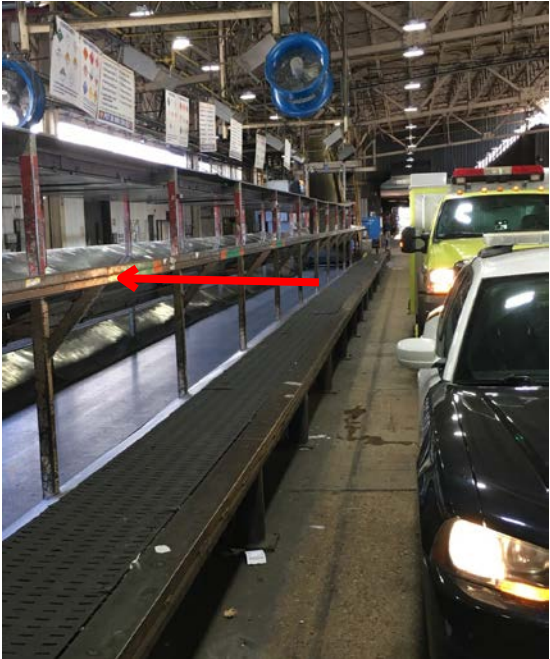
In that an unsecured vinyl roll-up door of the Unit Load Device (ULD) struck an employee as a motorized tug transported a dolly string along the input lines. Other hazards identified during the inspection include employees being struck by the tug/dolly or packages that fall off/out of the dolly.

Among other methods, feasible and acceptable means of abatement would be:

- a. Develop and implement procedures to ensure vinyl roll-up doors are secured while on the input line and during dolly string movement. Also include a work rule to prohibit vinyl roll-up doors in a partially opened/closed position.
- b. Develop and implement additional signals to communicate when packages are shifting and/or have the potential to fall out of the container during dolly string movement.
- c. Develop and implement procedures to ensure employees are out of the danger zone when tugs are moving dolly strings.



23 struck by tug door—Inspection # 1518385 Fed Ex Express



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