

Case 213. 60-year-old maintenance mechanic died when a 1,863-pound cleaner door fell onto him.

A 60-year-old male maintenance mechanic died when a 1,863-pound cleaner door fell onto him. The decedent and his coworker were assigned to replace a vertical hydraulic cylinder and its hydraulic hose that were attached to the cleaner door framework (stationary) and a movable cleaner door. The cleaner door moved up and down within the stationary framework and prevented product from coming back out of the processing unit. The decedent and his coworker raised the cleaner door using the hydraulic system to determine where the defective hydraulic cylinder/hose was leaking and to increase access so it was easier to remove a pin attaching the cylinder to the frame. After they raised the cleaner door, they wrapped a 3/4-ton lever chain hoist (chain jack), attached hook to hook, at an angle around one cross member of the framework and one cross member of the cleaner door to secure it in the raised position. They did not utilize secondary support to ensure the raised cleaner door remained in the raised position. The crew locked out the main panel and applied their lockout locks. As one coworker set up a ladder, the decedent attempted to remove the upper pin on the cylinder but was unsuccessful. The crew decided to disconnect the hydraulic line and manually lower the cylinder so it would be easier to drive the pin out of the cylinder. His coworker noted that access to the hydraulic coupling was better from the north side of the unit and communicated this to the decedent. The decedent repositioned himself to obtain better access. This new position placed him under the raised cleaner door, laying down, facing his coworker. His coworker was outside the work area on a ladder. The incident occurred while the decedent was disconnecting the lower hydraulic hose and his coworker was holding the fitting for the cylinder. The fitting broke, causing the hydraulic hose to become disconnected. Hydraulic fluid was forcefully released onto the decedent's coworker. The release of hydraulic fluid caused the cleaner door to fall. The force cause the chain jack to fail and the cleaner door continued to fall, landing on the decedent's back and pinning him against the framework. His coworker, using a company-issued radio, called for help. He tried to use the 3/4-ton chain jack to lift the cleaner door, but it did not work. When additional company personnel arrived, a 1-1/2-ton chain fall was used, but it too unsuccessfully lifted the cleaner door. Eventually, a 3-ton chain fall lifted the cleaner door from the decedent. He was declared dead at the scene.

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

SERIOUS: GENERAL PROVISIONS, PART 1, RULE 34(12):

Employees were not prohibited from placing their bodies beneath equipment, such as vehicles, machines, or materials, supported only by a jack, overhead hoist, chain fall, or any other temporary single supporting means, unless safety stands, blocks or other support system capable of supporting the total imposed weight is used to protect the employee in case of failure of the supporting system.

A secondary support system was not used while employees worked under a suspended 1,863 pound door and related equipment, cleaning door assembly and lever chain hoist.

SERIOUS: HAND AND PORTABLE POWERED TOOLS, PART 38, RULE 3845(1):

A chain fall or hoist and puller shall be used at not more than its rated capacity:

A hoist with a capacity of 3/4-ton failed while it was being used to suspend a 1,863 pound door and related equipment, lever chain hoist.

SERIOUS: THE CONTROL OF HAZARDOUS ENERGY SOURCES, PART 85:

- **RULE 1910.147(c)(4)(i):**

Procedures were not developed, documented and utilized for the control of potentially hazardous energy when employees were engaged in activities covered by Part 85:

Inadequate lockout procedures, employee did not lockout hydraulics or using blocking type system to protect against mechanical and gravity energy sources to replace a hydraulic cylinder and hose on cleaner door, cleaner door assembly.

- **RULE 1910.147(c)(7)(iii)(A):**

Retraining was not provided for authorized and affected employees when there was a change in their job assignments, a change in machines, equipment or processes that presented a new hazard, or when there was a change in the energy control procedures:

Retraining was not provided for job task that presented a new hazard; employees did not lockout hydraulics or utilize a blocking type system to protect against mechanical and gravity energy sources, cleaner door assembly.