

**Case 388. 53-year-old male waste treatment operator died when he was crushed between the plates of a filter press.**

A 53-year-old male waste treatment operator died when he was crushed between the plates of a filter press. The hydraulic filter press measured 49 inches from the floor and had 61 plates. Plate closing pressure was approximately 300-500 pounds. The press had a light curtain. The sensor height was approximately 16 inches from the floor and approximately 18 inches from the rim of the unit. The light curtain did not shut off the power to the unit when the decedent crossed the sensor path. To clean the filter cake that had not fallen from the screen, the cleaning procedure instructed a worker to stand outside of the filter press and to use a tool with a long wooden handle and a plastic scraper to knock off or scrape the remaining filter cake from the screen. A pendant control was near the press to control the movement of each plate/screen prior to using the tool to remove the material. The decedent was in the process of cleaning the screens/plates of the press using the required tool, but had either leaned into/between the plates or slipped/tripped and fell in between the plates. He was crushed between two plates when they closed.

MIOSHA General Industry Safety and Health Division issued the following Serious citations to the employer at the conclusion of its investigation.

**SERIOUS: GENERAL PROVISION, GI PART 1, RULE 408.10034(4):**

Hand tools shall not be substituted for the required guarding or point of operation devices, except that a hand tool may be used as prescribed in sub rule (5) for a press brake operation. Where hand tools are used for placing into, and removing material from a point of operation, they shall be designed so that the operator is not required to place a hand within the point of operation.

(Employee was using a hand tool as a substitution for guarding on the filter press.)

**SERIOUS: CONTROL OF HAZARDOUS ENERGY SOURCES, GI PART 85, RULE 1910.147(c)(4)(i):**

Procedures shall be developed, documented and utilized for the control of potentially hazardous energy when employees are engaged in the activities covered by this section.

- a. The established lockout procedures were not being utilized or enforced by employer while performing routine equipment maintenance on the filter press located in the Waste Water Treatment Plant.
- b. The established lockout placard is inadequate for locking out and dissipating the hydraulics on the filter press located in the Waste Water Treatment Plant.