Case 427. 32-year-old quality control employee died when he was pinned between a rotary carousel and part of the platen framework of a thermal forming machine.

A 32-year-old quality control employee died when he was pinned between a rotary carousel and part of the platen framework of a thermal forming machine. The decedent had been an operator of similar equipment in this facility prior to his job in quality control. The incident area had three stations, a loading/unloading area, an oven, and a press. The loading/unloading station had a lift table where a sheet of plastic was laid on it by the press operator. The lift table rose to the carousel, where clamps held the plastic sheet in place. The second station was the oven, where the clamped piece of plastic, still held in the carousel, was heated to make the plastic pliable. The heated plastic exited the oven and the carousel rotated to the press area. While the sheet of plastic was clamped in the carousel, the bottom platen of the press rose to close the mold and a vacuum was pulled to finish forming the plastic. The bottom platen opened and then lowered down to open the mold to its home position. The carousel rotated and the finished piece was unloaded. The whole process took approximately 5 minutes. While the machine/cell was operating the employees performed necessary trim work of the finished product. The machine/cell had a cage around it with three access points; a 6-foot by 9-foot opening in the loading/unloading area, a 6-foot by 9-foot gate between the oven and the press, and a gate approximately 6 feet by 9 feet in front of the press with a slide bolt. The two gates were not interlocked. The press operator noticed a problem with a part and notified quality control. The decedent agreed there was a problem but was unsure of the cause. The machine was in the automatic mode when he accessed the press area through the unlocked and non-interlocked gate in front of the press. He stepped onto the lower platen of the press and stood up in between the frame work of the carousel to exam the upper mold when the carousel cycled. When the carousel turned, he was caught between the framework of the carousel and the top of a stationary corner support post for the lower platen.

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

SERIOUS: PLASTIC MOLDING, GI PART 62

- RULE 408.16211(1): An employer shall provide training to an employee regarding the operating procedures, hazards, and safeguards of any assigned job.

  (An employee was not trained as authorized to perform lockout on the Thermoforming Press Machine 6 in the Forming Department.)

- RULE 408.16227(2): Excerpt as permitted in R 408.16234(10), each employee doing the work shall lock out the power source of the machine or equipment to be repaired or serviced if unexpected motion would cause injury. Any residual pressure which would be hazardous shall be relieved before, and remain relieved, during work by an employee doing the work.

(Thermoforming Press Machine 6 in the Forming Department was not locked out when the employee was examining the mold for flaws.)

- RULE 408.16236(1): An in-line automatic vacuum forming or trim press shall have the point of operation and all moving parts guarded.

  (There was an excessive guard opening allowing employees' access to the point and non-point of operations on Thermoforming Press Machine 6 in the Forming Department.)