

**Case 359. 23-year-old horizontal plastic injection mold machine (HPIMM) operator/material handler was crushed when he was inside the HPIMM adjusting a cardboard chute through the rear sliding door without lockout.**

A 23-year-old horizontal plastic injection mold machine (HPIMM) operator/material handler was crushed when he was inside the HPIMM adjusting a cardboard chute through the rear sliding door without lockout. The HPIMM produced two parts that required subsequent assembly. The decedent had operated the HPIMM earlier in his shift and was also acting as a material handler filling hoppers and assembling the two parts with a fixture to insert a pin that held the two pieces together. The HPIMM had a single rear interlock switch to control the hydraulics. The interlock switch had been defeated by the placement of a shop towel to hold the switch down, simulating the effect of the door in the closed position. The HPIMM operator/supervisor asked the decedent to tie up the catch tray, a cardboard piece that collected falling parts or waste, at the rear of the machine. It is unknown if the decedent bypassed the interlock or if the interlock was already in a bypass condition. The decedent leaned into the machine through the open door to tie up the catch tray. The operator/supervisor at the front of the plastic injection mold machine closed the front door and the press which was set in semi-automatic cycled with the decedent between the mold halves. The operator heard a noise, walked around the machine and saw the decedent. Emergency response was called and the decedent was declared dead at the scene.

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

**SERIOUS: PLASTIC MOLDING, PART 62**

- RULE 6211(1): An employer shall provide training to an employee regarding the operating procedures, hazards, and safeguards of any assigned job.

Employees were not familiar with the hazards and safeguards of plastic injection molding when performing tasks as operators, material handlers and die setters at both front and back doors of plastic injection mold machines.

- RULE 6227(2): When unexpected motion could cause injury, each employee doing the work did not lock out the power source of the machine or equipment to be repaired or serviced:

No lockout of power when employees were inside the mold area through the back door area while adjusting catch trays, assisting with parts ejection from molds or performing mold changes.

- RULE 6226(5): When used, interlocks were not installed to minimize the possibility of accidental operation or tampering:

Rear door interlock is arranged so that a rag or other items can be inserted between metal cover, depressing and defeating the interlock switch.

- RULE 6234(8): An electrically interlocked barrier was not provided to cover the mold area opposite the operator on an injection molding machine that was manufactured after August 28, 1973:

Rear door interlock was defeated with shop towel.