

Case 290. 37-year-old maintenance worker died when he was crushed against the machine frame by a lowering a steel coil belt wrapper arm as he was adjusting its belt.

A 37-year-old male maintenance worker died when he was crushed against the machine frame by a lowering a steel coil belt wrapper arm as he was adjusting its belt. The belt, as steel coils are wrapped, becomes off-center and must be readjusted. The decedent was contacted to perform the adjustment. The line operator worked in an elevated control room. The decedent contacted the line operator by radio and informed him that he was at the machine and planning to enter the work area through its inter-locked gate. It was thought that the gate provided lockout capabilities and that the activation of the machine and its belt wrapper arm could not occur from the operator's control room. The line operator was distracted by another operation and upon looking out the window of his control room he did not observe the decedent. Believing the adjustment had been completed the line operator pressed the appropriate button and lowered the belt wrapper arm. The decedent was positioned between the raised arm and the machine frame while aligning the belt and was crushed when the arm lowered. The line operator did not confirm by radio that the decedent had cleared the area. Another employee heard the decedent scream and radioed the line operator to lift the belt wrapper arm. Emergency response was contacted and the decedent was transported to a local hospital where he died. After the incident, it was found that the interlocked gate did not de-energize the machine/belt wrapper control panel button in the operator control room.

The MIOSHA compliance officer found that the firm had a procedure for this task, however the energy source evaluation was inadequate as the procedure did not identify that the lowering of the belt wrapper arm was not controlled by the interlock safety on the entry gate. Following the fatality, the firm has modified the procedure and the belt realignment is performed outside of the interlocked gate using an extended hand tool.

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

SERIOUS: WELDING AND CUTTING, PART 12, RULE 1281(2):

Each resistance welding operation was not analyzed and safeguards and personal protective equipment were not used where a hazard was found:

Inadequate activation control, resistance welder – Loading End of Galvanizing Line.

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 energy source evaluation and procedures, belt wrapper – Galvanizing Line, Exit End.

- RULE 1910.147(c)(7)(iii)(B):

Additional retraining was not provided whenever a periodic inspection under 1910.147(c)(6) revealed that there were deviations from or inadequacies in the employee's knowledge or use of the energy control procedures:

Inadequate training for authorized employees.