Dry Ice – Safe Use and Handling Fatality File



Four of employee’s fingers are amputated by dry ice machine

At 6:45 a.m. on October 9, 2020, a 68-year-old employee was working for a firm that manufactured industrial gases, such as nitrogen, oxygen, carbon dioxide, argon, hydrogen, helium, and acetylene. He worked in machinery maintenance. He was at the firm’s dry ice (solid carbon dioxide) production facility. He was troubleshooting an IceTech SL1000 dry ice making machine. The blocks of dry ice it was making were not being formed correctly.

The employee began troubleshooting the machine by opening the access door to the ice box to inspect the machine. When the employee reached into the ice box where a loosely packed ice block was sitting, the fingers on his left hand were inadvertently caught in a rotating part within the ice box. The employee suffered the amputation of four fingers on his left hand. The employee was hospitalized. The narrative implies that the amputations happened instantaneously rather than during surgery later.

Following the incident, the employer added an energy control system that implemented an energy control device to all their dry icemaking machines in the U. S. This system isolated the hazardous energy that energized the rotating part within ice boxes, the part that cause the employee injury in this case. An interlock system comprising an interlock device and machine interface electronic programming was instituted to prevent the rotation of this part by shunting the flow of electrical power away from any electronic components (e. g., accentuator, motor, etc.) whenever the door to an ice box was in the open position.

Source: https://www.osha.gov