

32 Crushed by machine – Inspection #1276842

A **46 year old male** employee was fatally injured when he was crushed by the upper ram of a rubber mixer. At the time of the incident the victim was working with a Lab Technician to ensure the proper ingredients were in place for the batch of a specific type of rubber. Once the ingredients are placed on the feed conveyor; the conveyor was moved into position at the front of the mixer door. The conveyor fed the ingredients into the mixer and two rotors at the bottom of the mixer combined the ingredients. This batch was believed to be ruined due to overheating therefore the hopper had to be cleaned out by hand. Once the hopper returned back inside the mixer, the victim placed his head and both arms inside the front door of the mixer and the ram began to move downward. The downward motion of the ram pinned the victim inside the mixer door, crushing him. The TOSHA investigation revealed the victim did not lock-out the mixer prior to entering for cleaning purposes, the pin used to keep the ram from falling was not inserted in the designated area under ram prior to entering, and the ram switch at main control panel was defective.

Citation(s) as Originally Issued

A complete inspection was conducted at the accident scene. Some of the items cited may not directly relate to the fatality.

Citation 1 Item 1

29 CFR 1910.147(c)(4)(i)	Procedures were not developed, documented and utilized for the control of hazardous energy when employees were engaged in activities such as cleaning up at the machine. In that employees were not utilizing lockout tag-out when cleaning built up rubber from the rotors inside the mixer hopper. An employee entering the mixer hopper to remove built up rubber was crushed when the ram moved downward pinning him between the ram and the mixer frame.
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Citation 1 Item 2

29 CFR 1910.147(c)(4)(ii)	The energy control procedures did not clearly and specifically outline the scope, purpose, authorization, rules, and techniques to be utilized for the control of hazardous energy, including but not limited to items (a) through (d) of this section. In that the lockout tag-out procedure for the mixer did not require employees to apply a lock in the end of the blocking pin that was placed through the machine's frame to block the gravitational energy source associated with the ram.
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Citation 1 Item 3

29 CFR 1910.147(c)(7)(i)(A)	Each authorized employee had not received training in the recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, and the methods and means necessary for energy isolation and control.
	In that the employees entering the mixer to perform clean out duties in the hopper had not received lockout tag-out training as authorized employees.



Photo 1 of 1 – Photo shows the orange mixer door and this is where the victim entered for cleaning purposes. In the photo the ram is lowered down inside the mixer hopper.