Struck by & crushed by hydraulic arm – Inspection #1094003

A **44 year old male** employee was crushed by a hydraulic arm of the overhead side feeder when he leaned into the Besser automatic block cubing, and packaging machine. The victim was working at the Besser automatic cubing machine using a push/pull bar approximately 40-inches long to straighten non-square landscaping retaining wall concrete blocks as they went into the overhead side feed area for packaging. Inside the overhead side feed area was a hydraulic arm that moves blocks onto the carriage plate. The carriage plate then moves the blocks into the machine to group the blocks for pallet packaging. Since there were no witnesses to the accident, it is possible the victim could have missed one of the blocks, and instead of using the push/pull bar, he leaned from the waist into the machine to try, and quickly adjust the block without shutting the machine off. The victim leaned into the path of the hydraulic arm, and was crushed by it as it came down to push the blocks into the carriage plate. The pushing blade on the hydraulic arm was measured to be approximately 8-inches in height and 48-inches wide. The victim was fatality injured with crushing injuries to his upper torso. The investigation determined there was not a guard in place to prevent the employee from being able to access, or lean over into the overhead side feed area of the Besser automatic block cubing, and packaging machine.

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

TCA 50-3-105(1)	Each employer did not furnish to each of its employees conditions of employment and a place of employment free from recognized hazards that are causing or are likely to cause death or serious injury or harm to its employees. In that an employee was exposed to a potential tip over hazard operating a Clark LP-Gas forklift (model #GPS30MC) in the production plant area while not wearing the seat belt provided on the forklift.

Citation 1 Item 2

29 CFR 1910.23(a)(5)	Every pit and trapdoor floor opening, infrequently used, was not guarded by a floor opening cover of standard strength and construction. When the cover was not in place, the pit or trap opening was not constantly attended by someone or was not protected on all exposed sides by removable standard railings. In that the skip hoist pit opening between the cement mixer and the Besser Vibrapac block machine was not guarded on all exposed sides to prevent a fall.

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Citation 1 Item 3

29 CFR 1910.36(d)(1)	Employees were not able to open an exit route door from the inside at all times without keys, tools, or special knowledge. In that an exit door located in the northwest corner of the cuber room was padlocked shut preventing employees from being able to promptly evacuate the room in the event of a fire.

Citation 1 Item 4

29 CFR 1910.146(c)(2)	The employer did not inform exposed employees, by posting danger signs or by any other equally effective means, of the existence and location of and the danger posed by the permit spaces. In that the employer had incorrect signage on the cement mixer classifying it as a non-permit confined space, misinforming exposed employees of the dangers posed by the permit space.

Citation 1 Item 5

29 CFR 1910.147(c)(4)(i)	Procedures were not developed, documented and utilized for the control of potentially hazardous energy when employees were engaged in the activities covered by this section. In that the employer did not develop adequate procedures for the control of hazardous energy to protect employees working on machines such as the Besser Vibrapac block machine.

Citation 1 Item 6

29 CFR 1910.178(m)(5)(iii)	When the operator of an industrial truck was dismounted and within 25 ft. of the truck still in his view, the brakes were not set to prevent movement. In that the employer did not ensure that an employee set their parking brake on the Clark LP-Gas forklift (Model #GPS30 MC), while the employee was dismounted and within 10 feet of the forklift.

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Citation 1 Item 7

29 CFR 1910.212(a)(1)	One or more methods of machine guarding was not provided to portect the operator and other employees in the machine area from hazards such as those created by point of operation, ingoing nip points, rotating parts, flying chips and sparks. In that they employer did not provide adequate guarding to protect employees from leaning or reaching into the Besser Automatic Cuber machine. An employee working at this machine was fatally injured after begin crushed by the hydraulic arm inside the overhead side feed area.

Citation 1 Item 8a

29 CFR 1910.219(d)(1)	Pully(s) with part(s) seven feet or less from the floor ow working platform, were not guarded in accordance with the standards specified in paragraphs (m) and (o) of this section. In that employees in the production plant were exposed to an unguarded pulley while operating the Besser Vibrapac block machine.

Citation 1 Item 8b

29 CFR 1910.219(e)(1)(i)	Horizontal belts which had both runs seven feet or less form the floor level were not guarded with a guard that extended to at least fifteen inches above the belt. In that production employees were operating a Besser Vibrapac block machine which had an unguarded belt (3/4 inches wide and approximately 34 inches off the ground).

Citation 1 Item 9

29 CFR 1910.219(f)(3)	All sprocket wheels and chains were not enclosed when they were not more than seven feet above the floor or platform. In that employees were exposed to an unguarded chain and sprockets which operate the conveyor on the Cuber machine in the production plant. The chain and sprockets were approximately 29 inches above the ground.

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Citation 2 Item 1

29 CFR 1910.22(a)(1)	All places of employment, passageways, storerooms, and service rooms were not kept clean and orderly and in a sanitary condition. In that employees were exposed to slip/trip hazards in the production plant due to aggregate and concrete dust accumulation on the floor.

Citation 2 Item 2

29 CFR 1910.157(e)(2)	Portable extinguishers or hose used in lieu thereof under paragraph (d)(3) of this section were not visually inspected monthly. In that monthly inspections were not being performed on portable fire extinguishers.

Photo 1 of 1 – The photo shows the overhead side feed area where the victim was found (red square) crushed by the hydraulic arm (red arrow).