

8 Crushed by silo—Inspection # 1474222 JDL Construction

A **52 year old male** employee was **crushed by** 3 ½ concrete silos when they collapsed on top of the loader the victim was operating. The crew had been hired to demolish 38 silos that were 27' wide and 100' tall. They were working on the last 3 ½ silos on the property when the accident happened. Demolition of the last three silos began on a Friday and resumed on Monday with no action taking place over the weekend.

On Friday, the northwest silo had been dropped approximately 60 feet, leaving about half left to be demolished. On Monday, the day of the incident, the owner of the company was operating the Komatsu excavator that had a jackhammer attachment; one employee was operating a bowl scraper; and another a CAT excavator. The bowl scraper was located approximately 165' north of the silo with a cable attached to the silos. The CAT excavator was also located about 165' north of the silo with a separate cable attached to the silos. These two cables were attached to the tops of two separate concrete silos by horizontal I-beams and clevises that were located on the inside of the tops of the silos. The cables had tension on them, but the employees were not pulling. The cables were presumably used to help guide the silos in that direction when falling.

Employees stated that the victim would hammer out the front and back of all the silos approximately 20 feet up from the ground and leave just the sides. He would then hammer at the concrete on the sides of the silos that was used to connect the silos together. When the sides were cut, the silo would go any direction. The employees stated on the day of the incident that the victim had already hammered the north and south sides of the northwest silo and he was now positioned on the northwest side of the silo facing southeast hammering at the west side of the silo. At approximately 11:00am, the silo collapsed west onto the excavator instead of falling the way the cables were tightened taking the additional 2 ½ silos down with it. The silos collapsed onto the KOMATSU excavator the victim was operating.

**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**

**Type of Violation: Serious**

**\$5400**

**TCA 50-3-105(l):** The employer did not furnish employment and a place of employment which were free from recognized hazards that were causing or likely to cause death or serious physical harm to employees.

In that an employee was struck by concrete debris during demolition of concrete silos due to

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working in an excavator in the immediate vicinity of the silos.

**Citation 1 Item 2**                      **Type of Violation:**      **Serious**                                      **\$4000**

**29 CFR 1926.850(a):** An engineering survey was not performed by a competent person to determine the conditions of the framing floors and walls and the possibility of unplanned collapse of any portion of the structure prior to permitting employees to start demolition operations.

In that a competent person did not perform an engineering survey to evaluate the conditions of the site before allowing employees to engage in demolition operations.

**Citation 1 Item 3**                      **Type of Violation:**      **Serious**                                      **\$4000**

**29 CFR 1926.859(g):** During demolition, continuing inspections by a competent person were not made as the work progressed to detect hazards resulting from weakened or deteriorated floors, or walls, or loosened material. Employees were also permitted to work where such hazards existed without being corrected by shoring, bracing, or other effective means.

In that a competent person did not inspect the silo involved in the incident that had previously been disturbed four days prior to the incident.



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NEXT TWO PHOTOS TAKEN ABOUT ONE MONTH PRIOR TO ACCIDENT  
(employee provided to give an idea of what the silos looked like during demolition)



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