

1 Crushed by paper wind-up machine – Inspection #1370482

A **59 year old male** employee was fatally injured when he was **struck by** an automatically actuated arm on the SL2 wind up paper machine. The wind-up machine has a set of primary arms that holds a steel mandrel and a round cardboard core, which is held in a waiting position while fabric is rolled onto another mandrel and core. When the roll is complete, the primary arms will move down and will cut the fabric, as a set of secondary arms move the completed roll down the line. At that same time, the mandrel and core which were being held in the waiting position by the primary arms are moved down into place and make contact with the fabric on a rotating drum. The fabric will get caught by tape that is on the core and begin winding around the core, starting a new roll.

At the time of the accident, a slitter was used to cut the fabric while winding which will allow the machine to build two shorter rolls at the same time, instead of one single long roll of fabric. It was suspected that tape was missing on the core and only one of the two cores caught the fabric and began winding. It was also suspected that the victim leaned over, stepped over, or walked around a plastic yellow awareness barrier chain to investigate why the fabric was not winding on the core nearest to him. As he was investigating, the fabric appeared to correct itself and began to wind up. However about that same time, the primary arms automatically actuated as designed and set the spinning mandrel onto the bed of the wind-up table. In doing so, the arm struck the employee's head, crushing it between the arm and a stationary portion of the machine. The arm then rose up in a vertical position, to wait for the process to be repeated.

The employer was using a plastic yellow awareness barrier chain to keep employees from being in the path of or contacting the moving parts of the wind-up machine. No other guarding was in place to keep employees out of the danger zone of the 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

Type of Violation: Serious

\$5400

29 CFR 1910.212(a)(1): One or more methods of machine guarding was not provided to protect 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 there was not adequate guarding to protect employees from leaning or reaching into the SL-2 wind-up machine. An employee was fatally injured after being crushed between the hydraulic primary arm and the frame of the machine.

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Description: The photo shows the wind-up machine. The yellow arrow indicates the location where the victim's head was crushed when the primary arm (red box) came down and struck him. The green arrow indicates one of the posts that the yellow awareness chain was connected to, prior to the accident. The blue arrow indicates the trash can which employees used, that was behind the chain. The orange circle indicates the empty tape roll that was observed on the floor.

