

## **27. Fall**

---

A **45-year-old** and a **21-year-old** Hispanic member of a concrete construction crew fell 85 feet to their deaths when a wall form of a concrete tower under construction fell. Four employees were working on a stairwell tower using a MEVA KLK climbing-scaffold system with a MEVA imperial wall form system that was attached to the decking of the scaffolding system. This is an engineered system designed to build towers. The decking of the scaffold is the work zone for the employees. The system was attached to the tower through a combination of hooks that were anchored to the tower and support struts that were under the system that helped support the system by pushing against the wall of the finished tower below. Once a section of the walls of the tower are poured and the concrete cured and tested the walls of the formwork are separated from each other and the formwork walls are slid back from the cured concrete walls of the tower. A few days before the incident, the concrete for the walls had been poured. Testing of the concrete determined that the concrete was cured and that the wall form system was ready to be pulled back so the system could be moved up to the next upper level. The superintendent, who had never worked with the system before, apparently gave the employees the okay to move the formwork back away from the freshly cured concrete. The east form was moved back on the slide carriage attached to the decking of the scaffolding; then the west form was likewise moved back. Next they moved to the south form and prepared to move it back. At this point, one of the victims climbed up to the top of the south formwork and tied off to the form with a personal fall arrest system. He was to help pry the top of the cured concrete wall off the formwork with a crow bar. The other three employees at the base of the south form loosened the braces and wedge pins that locked the carriage in place during pouring. These wedge pins must be removed before the form can be pulled back. However, at the time of the incident, three of the four wedge pins were still locked-in and had not been removed. Once the braces were released, the form started to pull away from the concrete wall. As the form moved away, popping and cracking sounds were heard. The form continued to fall away until it broke free from its supports on the slide carriage. The form then broke down the guardrail system on the scaffolding and knocked the other victim off the scaffold. The first victim, tied off to the top of the form was dragged off to fall with the form. The two employees fell approximately 85 feet to the concrete deck below. Neither survived.

### **Citations as Originally Issued**

Item 1 1926.21(b)(2)	The employer did not instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to the work environment to control or eliminate any hazards or other exposure to illness or injury in that the employees working with the climbing scaffolding in combination with the wall form system were not properly trained on the system.
Item 2 1926.703(a)(1)	Formwork was not designed, fabricated, erected, supported, braced and maintained so that it will be capable of supporting without failure all vertical and lateral loads that may reasonably be anticipated to be applied to the formwork.

**See Photo on Next Page**



---

*The south wall form is missing*

*Where the south wall and the victims landed*