

# Kentucky

## Fatality

## Assessment and

## Control

## Evaluation Project

**Public Health**

**KY FACE #01KY046**

**June 26, 2002**

**TO:** Michael Auslander, DVM, MSPH, Kentucky Department for Public Health, Division of Epidemiology, Surveillance and Investigations Branch

**FROM:** Medearis Robertson, KY FACE Field Evaluator

**SUBJECT:** Brick Mason Dies From Fall Through Scaffolding

### **SUMMARY**

A 62 year-old male brick mason (victim) died after he fell approximately 55 feet through masonry scaffolding. He worked for a masonry subcontracting company contracted to do the masonry work on a new building. The victim was performing ongoing work laying brick at the construction site. At approximately 7:15 AM the victim entered the building he was bricking and ascended to the 4<sup>th</sup> floor where he reached his workstation. He stepped out of an opening from the building onto the scaffolding outside. As he did so, he stepped over two mason boards (20 inches combined width), which were closest to the building and onto the first one of three materials boards (10 inches wide) located in the middle of the scaffolding. The board he stepped onto broke and he fell 55 feet. He died approximately one hour later at a nearby hospital of multiple blunt force injuries.

In order to prevent similar instances from occurring, FACE investigators recommend that:

- warning signs should be posted on scaffolding reminding workers they are in a dangerous area and to act accordingly.
- employees should be required to be tied-off when working on scaffolding area 6 feet above ground.
- work areas should be inspected for safety hazards prior to each work shift.
- safety meetings should be conducted prior to each shift to remind workers of the importance of safe behavior specific to their tasks.
- timely replacement of scaffolding boards should be instituted so that new sturdy boards are

always in place.

## **INTRODUCTION**

On September 21, 2001, the FACE office was notified by a local hospital that a fatal incident involving a brick mason had occurred earlier that morning. Two investigators traveled to the scene, located approximately 2 miles from the FACE office. They arrived at the scene at approximately 12:20 PM. Three people who were at the scene when the incident occurred were interviewed. A copy of the death certificate was later obtained.

The victim was a 62-year-old male. He had been a lifetime union mason and held a journeyman's license. He had worked for the company since 1997 and was nearing retirement. The company he worked for was a masonry subcontractor, which had been in business since 1978. It employed 76 workers, of which 35 were brick masons. There were six employees on this particular job site the day of the incident. Business was year round, not just seasonal.

The company had a designated safety director and a written safety program was in place at the time of the incident. There were written safety work procedures pertaining specifically to masons. Toolbox talks and jobsite talks were held weekly. Task specific training was held routinely. The company had a drug and alcohol testing policy. Employees were tested if they were involved in an accident or if there was reason to suspect drug and alcohol abuse.

## **INVESTIGATION**

On September 21, 2001, a masonry subcontracting company was laying brick, block and stone at a new building being constructed. The particular building where the incident occurred was located next to a hospital. On the day of the incident, the victim was to engage in ongoing brick laying on the exterior of the building. His work area was on a mason-jax, crank type scaffolding. The scaffolding used at this site had guardrails and toe boards. This particular company used 2"x10"x12' laminated board planking for the work surfaces. Laminated boards are considered to be the strongest. Before being used, boards are inspected. Boards deemed unsafe are cut up and used as stock boards. As was standard operating procedure for the company, the board the victim fell through had been inspected and tightened the day before the incident. That particular board had been used all week. It is unknown if the board was used prior to the week of the incident.

The typical workday at this site began with laborers preparing the materials board with mortar, brick and trowels for masonry use. Each morning at 7:30 AM, masons would arrive on their mason board and begin work. There were three work areas on this scaffolding. The mason board was comprised of two laminated boards 2"x10"x12' each, side by side. These boards were located closest to the building. The materials board, which was comprised of four laminated boards 2"x10"x12' each, side by side, was the next section away from the building. The laborers board was furthest from the building and was comprised of three 2"x10"x12' laminated boards side by side. It was reported that the workers were used to working on these boards and often had a bounce to their step while working. On this particular day, the victim went to his workstation early. A laborer was already present and was placing materials on the material

board for the mason to use. The laborer's back was to the building when the victim stepped onto the scaffolding. However, instead of stepping onto the mason board, the victim stepped into the middle of the materials board. The reason why he chose to step over the mason board and onto the materials board is unknown. It was surmised that due to the history of workers having a bounce to their step, the victim may have "bounced" onto the board. At that time, another employee standing outside the construction trailer across the street heard a loud noise and looked up to see the victim fall. The victim landed on his back on the ground-level steel reinforcements. The witness and another co-worker called emergency medical services (EMS). They were told not to administer CPR, nor to move the victim. The ambulance arrived and by 7:26 AM the victim was being transported to a local hospital. He passed away approximately one hour later of multiple blunt force injuries.

## **CAUSE OF DEATH**

The victim died from multiple blunt force injuries sustained as a result of falling from a building.

## **RECOMMENDATIONS/DISCUSSION**

**Recommendation #1:** Warning signs should be posted on scaffolding reminding workers they are in a dangerous area and to act accordingly.

**Discussion #1:** Workers become inured to the dangers surrounding their environment. Prominent reminders such as color-coded work areas and signage in prominent locations should be posted to continually remind workers of their dangerous work environment.

**Recommendation #2:** Accordingly, employees should be required to be tied-off when working on tubular scaffolding above 6 feet or more above ground.

**Discussion #2:** Currently OSHA does not require workers to be tied-off when working on tubular scaffolding if it is equipped with toe boards and guardrails. However, employers can require workers to be tied-off while working at heights over 6 feet above ground.

**Recommendation #3:** Scaffolding work areas should be inspected for safety hazards prior to each work shift.

**Discussion #3:** Currently OSHA 1926.451(f)(7) requires scaffolding to be inspected by a competent person prior to use after it is erected or has been modified. After the initial inspection, the scaffolding can be used without further inspection until it is modified. During this time frame, boards can become weak, connections can become loosened, weak spots can unknowingly reach their breaking point. This additional inspection could aid in catching potential problems before they occur.

**Recommendation #4:** Safety meetings should be conducted prior to each shift to remind workers of the importance of safe behavior specific to their tasks.

**Discussion #4:** Workers should be reminded prior to beginning their work shift of the particular

hazards of working on scaffolding. This would include walking carefully and not bouncing onto the platform boards. Workers should be reminded to always step out onto the boards closest to them when stepping onto scaffolding.

**Recommendation #5:** Laminated boards should be replaced in a timely fashion.

**Discussion #5:** Boards are currently inspected visually before being put into use as a plank. A board that fails inspection is cut up and used in other ways. The board that failed in this incident had been inspected and deemed safe. It had been used all week as a materials board. Upon inspection after the incident, it was found to have a weak spot in the middle that was not evident upon visual inspection. Boards passing the visual inspection should then be tested for their load bearing capacity. Also, boards should be replaced often so that a new sturdy board is always in place. The possibility of using a board with a weak spot is then reduced.