



Washington Division

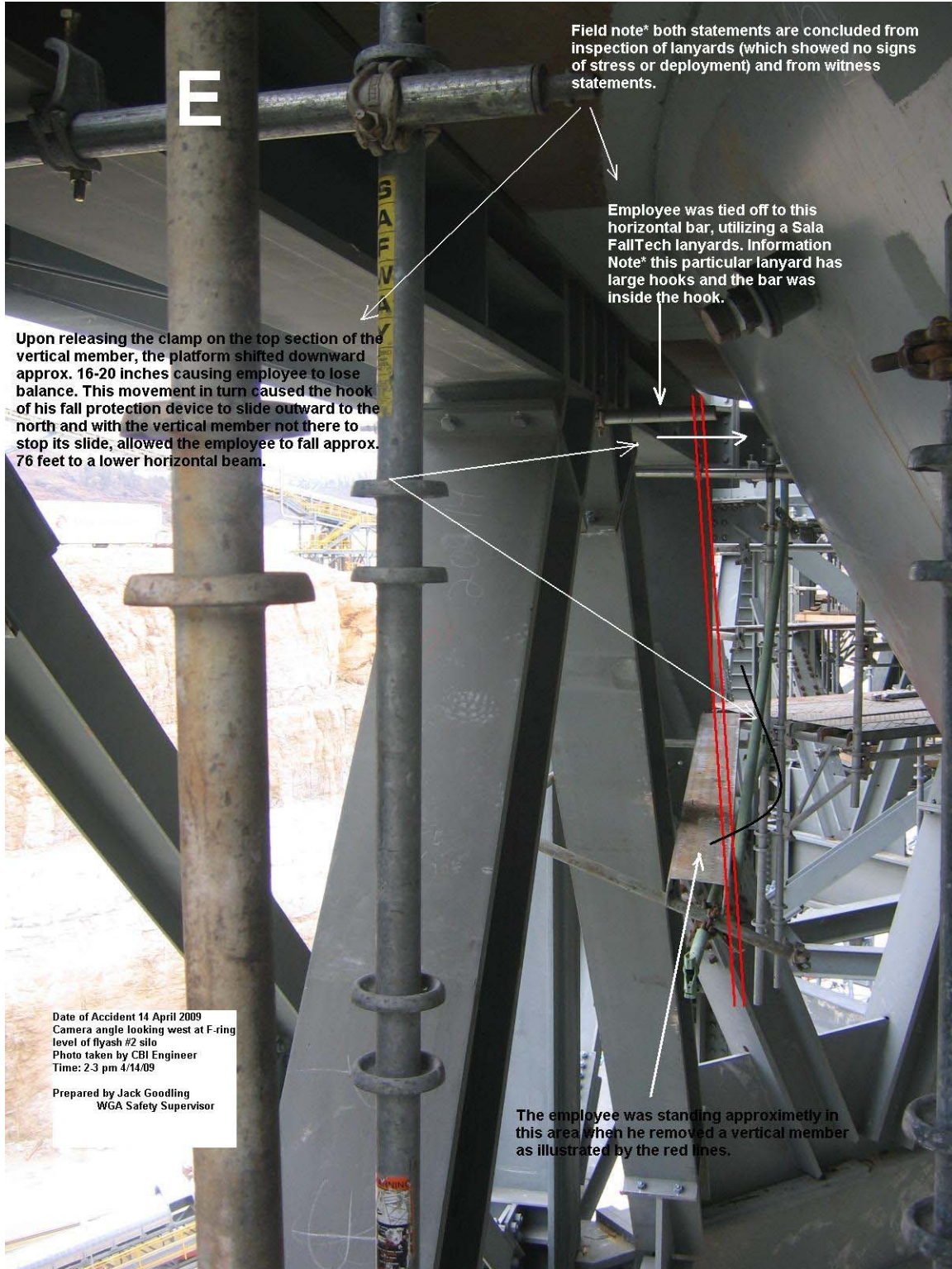
## **Lessons Learned Form**

### **Industrial/Process Holcim Project Missouri**

On April 14<sup>th</sup>, 2009 a crew of Safeway Scaffold workers was dismantling a scaffold on the fly ash silo as part of their subcontracted work to CBI. CBI is a subcontractor to WGA (Washington Group Alberici) at the Holcim Ste. Genevieve Project. During this process a Safeway employee was removing a vertical section of scaffold. Upon removal of the vertical section, the platform that he had built for dismantling shifted (twisted) and fell approximately 16 inches. The movement of the platform caused him to lose his balance, thus causing him to fall. His shifting momentum caused his body to fall in such a manner that it pulled his lanyard toward the North. This allowed the large snap hook to slide off the horizontal piece. The employee then fell approximately 76 feet before striking a horizontal structural beam. Upon impact his fall protection lanyard wrapped itself around the horizontal beam and suspended him. Ironworkers in a near-by JLB saw the employee suspended and immediately went to him for assistance. The injured employee was brought to the ground and the Holcim emergency response team responded. Efforts were made to stabilize the injured employee until the ambulance arrived. The employee was then transported to a local hospital and airlifted from there to St. Louis where he passed away.

#### **Probable Primary Cause:**

The employee's decision to remove a vertical member of the scaffold system. This member was a primary component of his fall protection anchorage system. The vertical member was attached to a horizontal scaffold bar which in turn attached to a structural beam. The vertical member served as both structural support for the platform and as a stop for his fall protection. (Reference pictures E & H) The employee chose to change the technique in which the dismantling process had been previously performed. This plan had worked initially, however when he began dismantling of the last section, he removed two braces which would have kept the scaffold locked into place and not allowed it to move or twist. (Reference picture D)



Field note\* both statements are concluded from inspection of lanyards (which showed no signs of stress or deployment) and from witness statements.

Employee was tied off to this horizontal bar, utilizing a Sala FallTech lanyards. Information Note\* this particular lanyard has large hooks and the bar was inside the hook.

Upon releasing the clamp on the top section of the vertical member, the platform shifted downward approx. 16-20 inches causing employee to lose balance. This movement in turn caused the hook of his fall protection device to slide outward to the north and with the vertical member not there to stop its slide, allowed the employee to fall approx. 76 feet to a lower horizontal beam.

Date of Accident 14 April 2009  
Camera angle looking west at F-ring level of flyash #2 silo  
Photo taken by CBI Engineer  
Time: 2:3 pm 4/14/09

Prepared by Jack Goodling  
WGA Safety Supervisor

The employee was standing approximately in this area when he removed a vertical member as illustrated by the red lines.





To get an idea of how employee was tied off, refer to the scaffold set up as outlined in red.

The employee was tied off in this manner and felt secure in the anchor point.

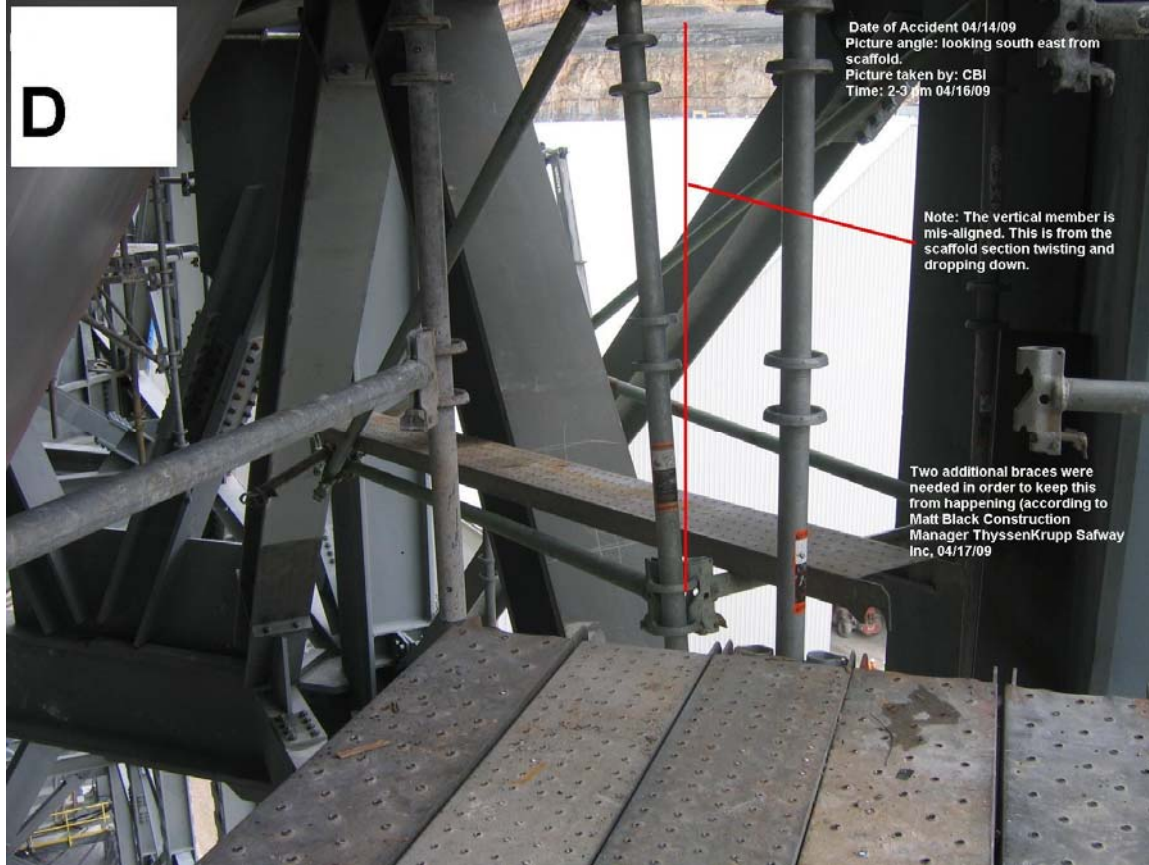
After removal of Vertical member this became the anchor point

Date of Accident 14 April 2009  
Photo angle looking west at the F ring line of #2 flyash silo.

photographer : CBI engineer  
Time of Photo: approx 2-3 pm 4/14/09

Prepared by Jack Goodling  
WGA Safety Supervisor

**H**



**Post Accident Events:**

A safety stand-down was conducted for all employees on site in order to provide information on the incident and to make everyone aware of counseling services available.

An MSHA investigation of the accident also has taken place in conjunction with Holcim, WGA and Safeway Safety Representatives.

**Corrective Actions Taken/Recommended:**

Safeway Scaffold submitted a plan in which to dismantle the remaining sections of scaffold (sent to MSHA Regional Office for approval). This scaffold involved has been stressed as a result of the incident and will be tagged and removed from service. Also all scaffold employees were advised of the proper procedures for dismantling scaffold and no deviations of this procedure will be allowed, unless authorization is first approved. All employees will be anchored off to structural steel members while dismantling scaffold.



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### **Major Learning From Incident:**

Scaffold erection and dismantling is a high hazard task. The learning we, as URS, should take from this, is the importance of conducting a detailed JHA, JSA or Erection/Dismantlement Plan to insure everyone knows exactly the steps to follow to insure proper anchorage and minimize exposure to those performing the tasks, as well as those in the area of the work zone.