

#11: Explosion – Inspection #317706296

A **42 year old male** employee died due to burns suffered during an explosion. Employees conducting furnace operations noticed steam coming from the electric arc furnace (EAF), and went to investigate. The two maintenance employees and four furnace operations employees tried to determine where the water was coming from and an explosion occurred. Most of the employees affected by the explosion walked away from the area with injuries, but one employee was burned over 55% of his body and received 3rd degree burns to his lungs. The employee was transported to the Vanderbilt burn center where he later died due to his injuries.

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 T.C.A. 50-3-105(1)	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 employees were exposed to being struck by molten metal and slag debris when an explosion occurs in the Electric Arc Furnace (EAF) located in the Melt Shop due to water leaking into the furnace.
Item 2 1910.132(d)(1)(i)	The employer did not select, and have each affected employee use, the types of PPE that will protect the affected employee from the hazards identified in the hazard assessment. In that the company did not ensure the employee was wearing aluminized clothing prior to locating the source of water going into the electric arc furnace, exposing them to flying fragments of molten metal and debris from the electric arc furnace when an explosion occurred.

Citation 2

Item 1 1910.23(a)(8)	Floor hole(s), into which persons could accidentally walk, were not guarded by standard railings with standard toe boards on all exposed sides or by floor hole covers of standard strength and construction. In that the employee loading the hopper with additives on the mezzanine level of the Electric Arc Furnace is exposed to falling into an 11” floor hole that did not have a cover.
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Photo 1 of 1: The white arrow points to where the victim was standing