

**U.S. CHEMICAL SAFETY BOARD***An independent federal agency investigating chemical accidents to protect workers, the public, and the environment.*[Home](#) : [News Room](#)[Print Page](#)[Email Page](#)

CSB Investigators Find Likely Source of Dust Explosion at Indiana Automotive Plant

November 05, 2003

Investigation Details:

[Hayes Lemmerz Dust Explosions and Fire](#)

(Huntington, Indiana - November 5, 2003) Investigators from the U.S. Chemical Safety and Hazard Investigation Board (CSB) have determined that last week's fatal accident at the Hayes Lemmerz automotive parts plant here likely involved an explosion of aluminum dust that originated near an aluminum chip melting furnace.

A secondary explosion occurred some minutes later in the dust collection equipment, and there were also smaller blasts involving gas cylinders and tires located outside of the building in an environmental contractor's trailer. Two Hayes Lemmerz employees were severely burned during the explosions. One died the following day, and the other remains hospitalized. A third employee was treated at a hospital and released. Approximately 80 workers were at the plant on the evening of October 29 when the incident occurred.

The furnace involved was used to melt aluminum chips, which were a byproduct of machining auto wheels cast at the plant. The chip processing produced aluminum dust, which like many other finely divided metals is flammable when mixed with air. Dust that had accumulated on surfaces in the work area was ignited by a flash fire that escaped from the dust collection hood over the furnace. The initial blast occurred as employees were restarting the chip processing operations after a temporary interruption caused by a small duct fire earlier in the day. Investigators believe that fire which occurred in a separate duct system had been fully extinguished and was not the ignition source for the later explosions.

The aluminum reprocessing area remains damaged and shut down in the aftermath of the accident, although other parts of the facility are back in operation. The explosions also destroyed external dust collection equipment and the environmental contractor's trailer, as well as causing some damage to the roof of the main building.

The investigators preliminary findings come after almost a week of field work at the site, including numerous interviews with plant employees and management personnel. According to lead investigator Angela Blair, "We collected a number of dust samples from the blast site and will begin analytical testing to determine the explosive properties of the dust."

Board member Dr. Gerald V. Poje, who accompanied the field team, said: "We are deeply concerned by the number of serious dust explosions that have occurred at various companies in recent months. The Board will work expeditiously to determine the root causes of the accident at Hayes Lemmerz and recommend new safety measures to save lives at this and other firms around the country." The Board is currently investigating two dust explosions that killed a total of 13 workers at unrelated facilities in North Carolina and Kentucky earlier this year. The Kentucky plant, which made fiberglass automotive parts, was heavily damaged, while the plant in North Carolina was destroyed and is being rebuilt at another site.

The CSB is an independent federal agency charged with investigating industrial chemical accidents. CSB investigations look into all aspects of such events, including physical causes such as equipment failure as well as inadequacies in safety management systems. Typically, the investigations involve extensive witness interviews, examination of physical evidence, and chemical and forensic testing. The Board does not issue citations or fines but does make safety recommendations to plants, industry organizations, labor groups, and regulatory agencies such as OSHA and EPA. Further information is available from www.csb.gov.



For more information call Daniel Horowitz at (202) 261-7613 or (202) 441-6074 cell.

U.S. Chemical Safety Board | 2175 K Street NW | Washington, DC 20037 | www.csb.gov