

Fire Investigation Summary

Fire Fighter Fatalities

West Helena, Arkansas

May 8, 1997



An explosion at a pesticides repackaging facility claimed the lives of three fire fighters and injured 16 more. The lessons learned from this tragedy reinforced the need to conduct a comprehensive size-up of any potential hazardous materials incident before personnel are placed in potentially hazardous situations.



National Fire Protection Association
Fire Investigations Department

On Thursday, May 8, 1997, the West Helena Fire Department responded to a reported fire at a pesticides repackaging facility. An explosion occurred as fireground operations were beginning. As a result, four fire fighters were struck and buried by debris. One of the fire fighters was rescued but seriously injured, and the other three died before they could be rescued. The building was destroyed by the fire and explosion.

The building involved was approximately two years old and of unprotected, noncombustible construction. Most of the building's area was used for storage of product. However, in one small production area where pesticides were repackaged there were several offices in the building. The building was served by a wet-pipe sprinkler system.

Facility personnel discovered a smoking sack of commodity in the facility's receiving area and attempted to extinguish the smoldering fire before calling the fire department at 1:02 p.m. In response, the West Helena Fire Department sent two engines, and several fire fighters drove to the scene in their own vehicles. The West Helena fire chief reported smoke showing upon arrival and requested a full response from the West Helena Fire Department and mutual aid assistance from the Helena Department.

The Helena fire chief and his driver were just down the street when they heard the request for mutual aid, and they responded immediately. Upon arrival, both the chief and his driver observed yellow smoke coming from the facility. The Helena chief

approached the West Helena chief, who was meeting with the facility personnel, for assignment. The West Helena chief handed him the MSDS sheets and asked him to evaluate the hazards being presented by the products.

The Helena chief reviewed the MSDS sheets, and based on his evaluation felt that it would be appropriate to pull back and develop a plan of attack prior to approaching the building. He was

approaching the West Helena chief to relay this information to him when the explosion occurred.

The explosion occurred as the West Helena fire fighters approached the building to investigate the source of the smoke. The four fighters were on the outside of the



building and were struck and buried by debris. Immediate efforts were made to extricate the trapped fire fighters by others on the scene. West Helena and Helena fire fighters were able to rescue only one fire fighter because of the severe fire. The other three were buried under debris that could not be removed quickly. The fire was rapidly growing, and the incident commander believed it involved chemicals that posed a high risk to all fire fighters in the area. As a result, the incident commander ordered everyone withdrawn before the last fire fighters could be removed and he kept all personnel at a safe distance until a hazardous materials response team from West Memphis, Arkansas, arrived.

Since fire fighters could not attack the fire and the smoke was considered to be extremely toxic, the focus of the fire department turned toward protecting the community from exposure. City, county, and state

law enforcement and emergency management agencies were notified. Evacuation of areas that could be exposed to the smoke was initiated. The local hospital was one of the many facilities in the evacuation zone.

When the West Memphis hazardous materials response team arrived, they assessed the situation and planned a fire attack to determine whether they could extinguish the fire. Their attack had no effect on the fire so the team decided that they could not extinguish the fire. Instead, they concentrated on recovering the three victims. This was successfully completed.

The EPA dispatched a team to the incident, and they assumed command of the scene. Over the following days an incident command structure was slowly created, incorporating the many agencies involved in the suppression and recovery operations.

Several days into the incident another private hazardous materials team arrived on the scene and began evaluating the situation. They conducted a more comprehensive evaluation of the scene. Based on this evaluation and their airborne monitoring, they established a new hot zone that was larger than the one that had originally been established.



The fire gradually decreased as it consumed the fuel, and by noon on Sunday, May 11, 1997, only

smoldering spot fires remained.

The building where the incident occurred was reportedly fully sprinklered. However, due to the damage, NFPA's fire investigators were unable to approach the building to verify the details. Furthermore, the plans to the building were destroyed in the explosion. There were 50 employees in the building at the time of the incident.



The exact cause of the fire and explosion are unknown at the time of this report.

Based on the NFPA's investigation and analysis of this fire, the following significant factors were considered as having contributed to the loss of life and property in this incident:

- Inadequate size-up
- Delayed alarm
- Ignition of material
- Proximity of fire personnel to building containing identified hazardous materials
- Lack of a rapid intervention crew

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The National Fire Protection Association's Fire Investigations Department documents some of the most significant fires and incidents throughout the world. The objective of these investigations is to determine what lessons can be learned from these incidents. This information is then made available to the fire safety community to be used in developing future codes and standards. A complete listing of reports is available, either upon request or can be viewed on our web page.

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