

An aerial photograph of an industrial site, likely a fertilizer plant, showing a large area of destruction. Debris is scattered across the ground, and several large white storage tanks are visible. A road and a railway track run through the site. The background shows green fields and a clear sky.

# West Fertilizer / Adair Grain Company Ammonium Nitrate Fire and Explosion

**West, Texas**

**April 17, 2013**

**Manny Ehrlich  
Board Member**



# Emergency Response

- **The explosion fatally injured emergency responders and nearby residents**

Organization	Casualties
West Volunteer Fire Department	5
Abbott Volunteer Fire Department	2
Navarro Mills Volunteer Fire Department	1
Dallas Fire Department	1
EMT (West Volunteer Fire Department)	1
Members of the public	5



# Casual Factors

- **Incident management system (IMS)**
- **Incident command system (ICS)**
- **HAZMAT Knowledge**
- **Pre-incident planning**



# Casual Factors

- **HAZMAT Training**
- **Limited, conflicting technical guidance on FGAN**
  - **Inconsistent firefighting measures**



# Incident Management System

- **IMS not effectively set up, implemented, or coordinated**
  - Public emergency alert systems not activated before explosion



# Incident Management System

- **Residents left unaware of risk**
  - Watched fire from inside homes
  - In range of high-pressure blast wave



# Incident Command System

- **Incident command system not established**
  - No evidence NIMS
  - No evidence of discussion on IC



# Incident Command System

- No prior IC experience with industrial fires
- No evidence of fire ground control





# HAZMAT Knowledge

- **Did not understand basic concepts:**
  - **Hazard of FGAN / Oxidizers**
  - **Risk of FGAN/Oxidizers**



# Lack of Pre-Incident Planning

- **Pre-incident planning for FGAN not conducted**
  - **No anticipation of possible FGAN explosion**
  - **Efforts concentrated on anhydrous ammonia tanks**

U.S. Chemical Safety and Hazard Investigation Board



**U.S. Chemical Safety Board**

**1750 Pennsylvania Ave, NW**

**Suite 910**

**Washington, DC 20006**

**202-261-7600**

**[www.csb.gov](http://www.csb.gov)**