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CSB Investigation of the West (Texas) Fertilizer Fire and Explosion

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On April 17, 2013, a fire and explosion occurred at the West Fertilizer Company (WFC), a fertilizer blending, retail, and distribution facility in West, Texas. The violent detonation fatally injured 12 emergency responders and three members of the public. Local hospitals treated more than 260 injured victims, many of whom required hospital admission. The blast completely destroyed the WFC facility and caused widespread damage to more than 150 offsite buildings. The WFC explosion is one of the most destructive incidents ever investigated by the U.S. Chemical Safety and Hazard Investigation Board (CSB) as measured by the loss of life among emergency responders and civilians; the many injuries sustained by people both inside and outside the facility fence line; and the extensive damage to residences, schools, and other structures.

The CSB conducted an exhaustive investigation that lasted more than two years and which yielded 19 recommendations directed to ten recipients. The tragic loss of life to the civilians and emergency responders, in addition to issues related to community-wide property damage were central in the development of these recommendations, and cover a range of elements which include:

- Regulatory oversight
- Insurance
- Emergency response
- Emergency planning
- Land use planning
- Technical conditions

This presentation will provide an overview of the incident, consider the key findings from the investigation, and illustrate the relationship of these findings to the recommendations.

Keywords: Fertilizer Grade Ammonium Nitrate (FGAN), Hazard Awareness, Emergency Planning and Response, FGAN Storage Practices, Land Use Planning