Emergency Response

• The explosion fatally injured emergency responders and nearby residents

<table>
<thead>
<tr>
<th>Organization</th>
<th>Casualties</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Volunteer Fire Department</td>
<td>5</td>
</tr>
<tr>
<td>Abbott Volunteer Fire Department</td>
<td>2</td>
</tr>
<tr>
<td>Navarro Mills Volunteer Fire Department</td>
<td>1</td>
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<tr>
<td>Dallas Fire Department</td>
<td>1</td>
</tr>
<tr>
<td>EMT (West Volunteer Fire Department)</td>
<td>1</td>
</tr>
<tr>
<td>Members of the public</td>
<td>5</td>
</tr>
</tbody>
</table>
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