



EMERGENCY RESPONSE REVIEW

U.S. Environmental Protection Agency, Region 6

Magnablend Chemical Facility Fire, Waxahachie, TX DRAFT Report :: March 16, 2012

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EPA Region 6

EPA Region 6 is issuing this Emergency Response Review as part of its ongoing effort to protect human health and the environment by responding effectively to chemical accidents. Emergency Response Reviews are designed to:

- Review with a local community and state officials the response procedures and outcomes to a specific chemical accident, affecting that community;
- Share information about chemical response safety practices;
- Develop potential recommendations and lessons learned to more effectively respond to an accidental release in the future;
- Build cooperation among local, state, and federal government agencies.

Emergency Response Reviews are entirely voluntary and may include all local, state, and federal entities involved with the response, as well as the responsible party and their representatives.

This document does not substitute for EPA's regulations, nor is it a regulation itself.

It cannot impose legally binding requirements on EPA, states, or the regulated community, and may not apply to a particular situation based upon circumstances.

This guidance does not represent final agency action, and may change in the future, as appropriate.

Summary of Incident

At approximately 1100 hours on Monday 3 October 2011, a fire was reported at the Magnablend, Inc. chemical blending and manufacturing facility located on N. Grand Avenue, in Waxahachie, Ellis County, Texas.

The cause of the fire is not the focus of this review, but appears to have happened during a blending operation, which resulted in an exothermic reaction, releasing hydrogen gas. The resulting gas found an ignition source and started a large fire within the building.



The Waxahachie Fire Department observed the following upon arrival to the scene:



- There was grey smoke coming from the mixing room building which is located generally on the west side of the facility. The initial thought of the first responders was that an internal mixing tank had overheated and was giving off steam and smoke from a reaction. Upon further observation, a reddish "hot spot" was noted on the rear (south) wall of the building.
- Waxahachie FD deployed three engines and one ladder truck, with the Fire Chief acting as the Battalion Chief/Incident Commander.
- The employees from Magnablend were evacuated in an orderly and effective manner.
- The "Hot Spot" quickly turned from a spot to flames and the smoke began to darken. At this point, more units were called in, including mutual aid from nearby cities of Ennis, Midlothian, and Red Oak.
- The Waxahachie Fire Chief set his units in place, including an engine in the front to support the facility sprinkler system which later failed within approximately 5-10 minutes on-scene. An additional engine and ladder truck were stationed on the facility south side in attempt to stop the spread of the fire east into other parts of the facility building.

- Stationary ground monitors were placed near the south entrance to the facility in an attempt to set a water screen to stop the fire moving east.
- The order was given to stay out of the building, meaning no hand lines were taken inside the building in an attempt to extinguish the flames.

- Within 15 minutes of arriving on scene, the Fire Chief was concerned that the facility building would be lost due to the loss of the sprinkler system and the intensifying fire which was spreading to adjacent areas from the mixing area. Intense heat from the on-going reaction of the chemical mixing which caused the fire was feeding the spreading flames.

Response actions included:

Additionally, intense heat was beginning to melt totes of chemicals inside the facility, many of which contained mineral oil. Upon seeing this imminent release of mineral oils, the Fire Department Incident Safety Officer ordered all units to evacuate the east side of the facility, and for other units to move uphill. The City of Ennis Fire Department ladder truck was located on the east end of the side, facing US 287 to the north. At the time the evacuation notice was given they were beginning firefighting operations with their ladder monitor.

The crew of the Ennis ladder truck evacuated the area, leaving the truck, immediately before it was engulfed in a wave of burning mineral oil which was running from the facility building downhill towards the storm ditch and rail spur on the eastern edge of the site.

The City of Waxahachie Fire Marshall was communicating directly with the plant manager, who was providing information regarding the facility building and the chemicals stored on-site to the fire fighting operations. A survey of rail cars was made after the emergency fire fighting had been completed. The initial report was that all the Magnablend cars were filled with naphtha. One car was placed on the spur by Union Pacific, and the contents were unknown by Magnablend employees.

The City of Waxahachie Police Department was coordinating with the Fire Chief regarding road closures, evacuations and site security. The City Police Department worked with the Ellis County Sherriff's office and Texas DPS Troopers to provide traffic control, close roads and provide site security.



The City of Waxahachie Fire Chief decided that the use of foam to extinguish the fire would not be effective. This was based upon the lack of access and proximity to the fire, and the need to continue using water in an attempt to save other parts of the building.

The Ellis County Judge ordered an evacuation, at which time the reverse 911 system was activated to evacuate areas that had been geographically identified as having a potential for impacts from the fire. The reverse 911 notification instructed residents and employers to leave their homes and businesses and to call the City of Waxahachie for information. A second reverse 911 call was made to the entire city, lifting the evacuation and allowing people to return to their homes.

Police units were dispatched to the evacuation zone to ensure an evacuation was made. Single family and multi-family homes were evacuated, along with an elementary school and an assisted living facility. No shelter was opened or set up for this evacuation.

The City of Waxahachie Public Information Officer was the primary contact for media inquiries, which become overwhelming within a short period of time. Additionally, multiple agency information contacts were calling her cellular phone requesting information and updates, sometimes multiple people from the same agency.



There was a large amount of media interest both locally, and nationally. Television crews who arrived at the site within 3-45 minutes of the initial call staged on-site, at the southern edge of the Magnablend property, within approximately 250 yards of the facility building. Had the winds shifted or the intensity of the fire increased, that location would have been immediately unsafe. No one was available to coordinate the moving of the television trucks to a safer site away from the facility.


Site security was provided by the City of Waxahachie Police Department, along with the Ellis County Sherriff, Texas DPS Troopers and the Navarro College security guards. Coordination of access to the area surrounding the site was somewhat limited. Additionally, US Highway 287 was closed immediately north of the site. However, the road was reopened as the smoke from the fire dissipated. People stopping along the edge of the highway to take pictures and look caused multiple accidents, including one fatality of a motorcycle rider.

Emergency Response teams from the Texas Commission on Environmental Quality (TCEQ), the 6th Civil Support Team (CST) and US EPA from Dallas arrived on scene approximately 2.5 hours after the fire began to provide air monitoring of the site perimeters and nearby populated areas.

The first evening Unified Command coordination and meetings were productive and Magnablend contractors began creating an operational plan for extinguishing hot spots within the facility and beginning removal actions of runoff water and the contaminated soils.

OBSERVATIONS / RECOMMENDATIONS

<p>#1</p>	<p>EPA Region 6 commends the tremendous effort carried out by all response organizations involved in the Magnablend incident. Throughout the response, local responders displayed professionalism in their efforts.</p> <p>All local response organizations should review their response protocols based upon the following: "Response Teams to a disaster scene have a responsibility to first protect themselves and their team members. If you or a member of your team is injured, not only the number of victims is increased, but the response is now delayed, resulting in additional resource utilization.</p> <p>Disaster Paradigm: Safety and Security - Don't be Selfish - Protect Yourself</p> <p>Scene Priorities</p> <ul style="list-style-type: none"> • Protect yourself and your team members first • Protect the public • Protect the patients • Protect the environment <p>Once your team has safely entered the scene, focus on protecting the public..."</p> <p style="text-align: right;">"Basic Disaster Life Support Manual, Version 2.5"</p>
<p>#2</p>	<p>Local governments that respond to hazardous materials emergencies should always be aware of the potential for reimbursement under the local Government Reimbursement program, operated through EPA. More Information on this program can be found at: http://www.epa.gov/oem/content/lqr/index.htm</p>
<p>#3</p>	<div style="display: flex; align-items: center;">  <div data-bbox="418 1293 1555 1423"> <p>Response Organizations within Ellis County should ensure that they have the 24-hour phone numbers for EPA Region 6 (866-372-7745), the State of Texas 24-Hour Emergency number (1-800-832-8224), as well as the phone number for the National Response Center (NRC 800-424-8802), and CHEMTREC (800-424-9300)</p> </div> </div>
<p>#4</p>	<div style="display: flex; justify-content: space-between;"> <div data-bbox="167 1514 1252 1745"> <p>Officials and other representatives are conducting many activities within Ellis County that meet the definition of LEPC activity. All response / planning organizations within Ellis County should meet to determine the need and effectiveness to re-invigorate an LEPC within the County, and to take credit for the work that they are currently conducting. An Ellis County LEPC would have a positive effect on coordination between the facility, responders and public affairs officials. In future incidents, an LEPC would create a more cohesive message and information sharing pipeline.</p> </div> <div data-bbox="1252 1478 1555 1745" style="text-align: center;">  </div> </div>
<p>#5</p>	<p>Public Information Officers from the US EPA Region 6 office and Texas Department of Emergency Management could be available to stand up a Joint Information Center to assist the City and County in future events. Coordination between PIOs prior to the event would facilitate cooperation during the response. Additionally, an LEPC could facilitate training for facility and governmental spokespersons on media relations to reduce burden on municipal PIO.</p>

#6	On-lookers and the media became an issue for site security at the incident. Site Security and access could be improved with identification for specific personnel who have access to the incident. Additionally, coordination with other local police departments in mutual aid (similar to what fire departments use) would ensure adequate staffing of large emergency response sites for site security	
#7	A local public health official is needed to be the carrier of the public health message related to the response. This official would be the face and provide the official message of the air monitoring and sampling data being generated by TCEQ, 6 th CST, the facility, and EPA. Without this official, there is a public health message vacuum that can cause confusion.	
#8		The Agency for Toxic Substances and Disease Registry (ATSDR), which is part of the Centers for Disease Control, in coordination with the EPA OSC, could set up a public health message using the Poison Control Centers Hotline. This information would be provided by the public health officials and would be available 24 hours. This would decrease the burden on local phone resources (City hall, PIO, etc...) and ensure that a consistent and applicable message is available to citizens who have questions or concerns.

Emergency Response Review, February 28, 2012 Attendees:

- David Hudgens - Chief, Waxahachie Fire Department
- Dennis Crecelius - Fire Marshall, City of Waxahachie Fire Department
- Joe Stewart - Fire Marshall / Emergency Manager, Ellis County
- Paul Stevens - City Manager, City of Waxahachie
- Michael Scott - Assistant City Manager, City of Waxahachie
- Amy Hollywood - Public Affairs, City of Waxahachie
- Nicolas Brescia - EPA OSC
- Steve Mason - EPA OSC
- Alex Byrum - EPA-START
- Jeff Kunze - TCEQ Strike Team Lead
- Michelle Havelka - TCEQ Region 4 Emergency Response Team Lead