

# EMERGENCY RESPONSE REVIEW

## Burlington Northern / Santa Fe Derailment and Chemical Fire Overbrook, Oklahoma

*FINAL REPORT :: NOVEMBER 1, 2004*



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The Environmental Protection Agency (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

On June 30, 2004, a Burlington Northern Santa Fe (BNSF) train derailed just outside of Overbrook, in Carter County, Oklahoma. It is believed that an I-beam became dislodged from a car, puncturing a following car containing anhydrous dimethylamine (DMA). The punctured car caught fire at the puncture site. A large plume of smoke from the fire was reported, but local rains helped to knock down much of the plume by 0730 hours.

Heavy rains during the night and morning had swollen the creek and other nearby waterways, causing minor flooding in the area and hampering clean up efforts.

The Greenville/Overbrook Volunteer Fire Department (GOVD) responded immediately to the incident, and began to secure the scene and evacuate nearby residents at 0230 hours. Approximately 100 residents were evacuated over a two mile radius.

BNSF also mobilized its hazmat team and multiple contractors immediately to the site. EPA, as well as Oklahoma Department of Environmental Quality (DEQ), also responded to oversee the response and cleanup efforts.

The rail car continued to burn for four days, finally being extinguished on July 3, 2004. Continuous monitoring around the perimeter of the rail car and downwind areas were performed by BNSF and EPA, with no DMA or its combustion products detected.

More detailed information on this incident and response and can be found on the EPA Response Webpage:

[www.epaosc.net/bnsfoverbrooktrainderailment](http://www.epaosc.net/bnsfoverbrooktrainderailment)

On August 9, EPA Region 6 invited state and local organizations involved in the response to come together as a group and discuss the strengths and key issues surrounding the response. This report is a result of that meeting. A list of attendees is attached to this report.

## OBSERVATIONS / RECOMMENDATIONS

Observation # 1	EPA Region 6 commends the efforts made by all responders in fighting this fire and working to ensure the safety of the residents near the incident site.
Recommendation # 1	<p>All local response organizations should review their response protocols based on the following:</p> <p>“Response teams to a disaster scene have a responsibility to first protect themselves and their team members. If you or your team is injured, not only are the number of victims increased, but the response is now delayed, resulting in additional resource utilization. This delay and need for additional resources due to your inability to keep yourself and your team protected could cost other victims their lives.</p> <p style="text-align: center;">DISASTER Paradigm: Safety and Security</p> <p>Don't be selfish - protect yourself. Scene priorities:</p> <ul style="list-style-type: none"> <li>● Protect yourself and your team members first</li> <li>● Protect the public</li> <li>● Protect the patients</li> <li>● Protect the environment</li> </ul> <p>Once your team has safely entered the scene, focus on protecting the public ...”</p> <p style="text-align: right;"><u>"Basic Disaster Life Support Manual, Version 2.5"</u></p> <p>A first responder's first duty at any incident is safety. This issue is always paramount. When a responder is injured, they become part of the problem, instead of a solution to the problem. Never should any responder unnecessarily risk their lives. Individuals become emergency responders to help other individuals and their communities, safely and efficiently.</p>
Observation / Recommendation # 2	All response / planning organizations within Love County should meet to determine the need and effectiveness to re-invigorate an LEPC within the County.
Observation # 3	Overbrook and Criner Fire Department officials stated that none of their personnel have higher than Awareness Level HAZWOPER Training, and that annual refresher training is sporadic, at best.
Recommendation # 3	Both fire departments need to evaluate the hazardous materials training requirements under OSHA's HAZWOPER Standard (29 CFR 1910.120) and EPA's HAZWOPER regulation (40 CFR 311), and the level of response that their departments are allowed to perform.

<p>Observation / Recommendation # 4</p>	<p>All local response and planning organizations should review and evaluate the relevant State Statutes and regulations determine the proper authorities and command structures during an emergency response. In Oklahoma, this is covered by the Oklahoma Emergency Response Act, § 27A-4-1, which states:</p> <p>Contact agency" means a municipality, fire department or the Oklahoma Highway Patrol as determined by the location of an incident as follows:</p> <table border="0" data-bbox="443 415 1521 709"> <thead> <tr> <th data-bbox="443 415 1019 457">Location</th> <th data-bbox="1027 415 1521 457">Contact Agency</th> </tr> </thead> <tbody> <tr> <td data-bbox="443 489 1019 531">a. Inside corporate municipal limits</td> <td data-bbox="1027 489 1521 531">Municipal Fire Department</td> </tr> <tr> <td data-bbox="443 531 1019 594">b. Outside corporate limits on private property</td> <td data-bbox="1027 531 1521 594">Closest Municipal Fire Department</td> </tr> <tr> <td data-bbox="443 594 1019 709">c. Outside corporate limits on federal/ state public, highway, property, county road, or a railroad</td> <td data-bbox="1027 594 1521 709">Oklahoma Highway Patrol</td> </tr> </tbody> </table>	Location	Contact Agency	a. Inside corporate municipal limits	Municipal Fire Department	b. Outside corporate limits on private property	Closest Municipal Fire Department	c. Outside corporate limits on federal/ state public, highway, property, county road, or a railroad	Oklahoma Highway Patrol
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<p>Observation # 5</p>	<p>There was minor confusion during the initial stages of the response in terms of personnel and organizations arriving on-site providing information and assistance to the local organizations.</p>								
<p>Recommendation # 5</p>	<p>It is imperative that each arriving organization (federal, state, local, and private) check in with the existing command structure (Incident Commander or designee), identify all personnel arriving, and summarize the capabilities of that organization in support of the response.</p>								
<p>Observation # 6</p>	<p>During the response, it was observed that multiple times representatives of the responsible party or their contractors may have taken actions without the proper protective equipment (i.e., physically contacting rail car during the response with no PPE, or partially entering rail car with no respiratory protection)</p>								
<p>Recommendation # 6</p>	<p>While it is each organization's responsibility to ensure the safety and protection of their personnel, EPA recommends that anyone responding to a hazardous materials emergency, including the responsible party, should ensure the safety of all responders, particularly local organizations.</p>								

**Each of the emergency response reviews conducted within Region 6 show one consistent pattern: Emergency response personnel within Region 6 are be commended for their professionalism and sincere desire to protect the citizens of their communities. Region 6 EPA is grateful for the efforts made by all emergency response personnel, and hopes the above recommendations can be used to improve the response and preparedness readiness of a community, if a future emergency occurs.**

## Emergency Response Review (August 9, 2004) Attendees

Steve Mason	EPA OSC
Richard Franklin	EPA OSC
Danette Parnell	EPA-START
Christy Tullis	EPA-START
Jennifer Hurley	BNSF
Patrick Brady	BNSF
Tom Bergman	ODEQ
Jack Kirk	Greenville/Overbrook FD
Tracy Smithwick	Love County Emergency Manager
Bobby Sharp	Marietta FD
Donnie Clark	Criner Hills FD
Charles Campbell	Criner Hills FD
Chris Kirk	Greenville/Overbrook FD
Jessie Kirk	Shady Dale FD