



Training to Action

Gas Line Explosion in Sissonville, WV

On December 11, 2012, at around 1:00 p.m. a gas line exploded along I-77 in Sissonville, West Virginia. Fortunately there were no serious injuries from this massive explosion, although several people were treated for smoke inhalation. The explosion sent flames shooting 100 feet into the air and destroyed approximately 800 feet of I-77, melting guardrails and asphalt on both the north- and south-bound lanes. The blast also destroyed one house and damaged several others in the area and destroyed a small section of County Road 21. Local fire departments were able to contain the blaze within an hour of the explosion.

When asked what was most memorable about the gas line explosion and fire, Kanawha County Fire Coordinator C.W. Sigman replied: "That no one was seriously injured and how well the fire departments responded. They didn't rush to put out the fire. They assessed the situation before they moved in." Sigman was one of many emergency personnel who participated in the Rural Domestic Preparedness Consortium's (RDPC's) *AWR 225 Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) Response for Rural First Responders* course earlier that year. Sigman expressed that training such as the CBRNE class is "very helpful in preparing for and knowing how to weigh your options before acting" during these types of events. Sigman also stated that there have been other incidents involving CBRNE in the Sissonville area, mainly transportation accidents involving chemical spills.

When asked about the free *AWR 225 CBRNE Response for Rural First Responders* course, Sigman stated that it was a "great format, not drawn out, and the instructor was knowledgeable." *AWR 225 CBRNE Response for Rural First Responders*, provides rural first responders with an introduction to CBRNE materials and agents. The course imparts a basic understanding of CBRNE dangers, safe scene assessment, use of field guides, and components of CBRNE operations. Students put information into practice through the use of video scenarios of CBRNE incidents.





Ohio Train Derailment

In the early morning hours of July 11, 2012, just outside Columbus, OH, a mile long freight train went off the rails. Officials reported that around 2 a.m. that 11 of the 98 freight cars derailed. Three of the cars were carrying a combined 90,000 gallons of ethanol that burst into flames when the train left the tracks. The cause of the accident has not yet been released by the National Transportation Safety Board.

Two people were injured while walking near the accident scene to investigate when a second explosion occurred. Officials reported the two injured people transported themselves to the hospital with minor injuries. As a safety precaution, anyone living within one mile of the crash site was evacuated from their homes. Columbus Mayor Michael Coleman said the accident could have been worse if it had occurred in an area where more people lived: "I'm grateful, in one respect as well, that this did not occur in a more populated area near more residents. It could have been tragic in other ways as well."

William E. Brobst, Jr., Captain of the City of Columbus Hazardous Materials Response Team and instructor for the Rural Domestic Preparedness Consortium (RDPC) offered: "It is unfortunate that injuries occurred with this accident, but these types of incidents afford us the opportunity to put into practice what is taught in the class and improve the response should it happen again. I was able to use much of the training information that we share in the RDPC AWR 147 *Railcar Incident Response* course on this incident. I also have some lessons learned that will be going into updates in the course materials."

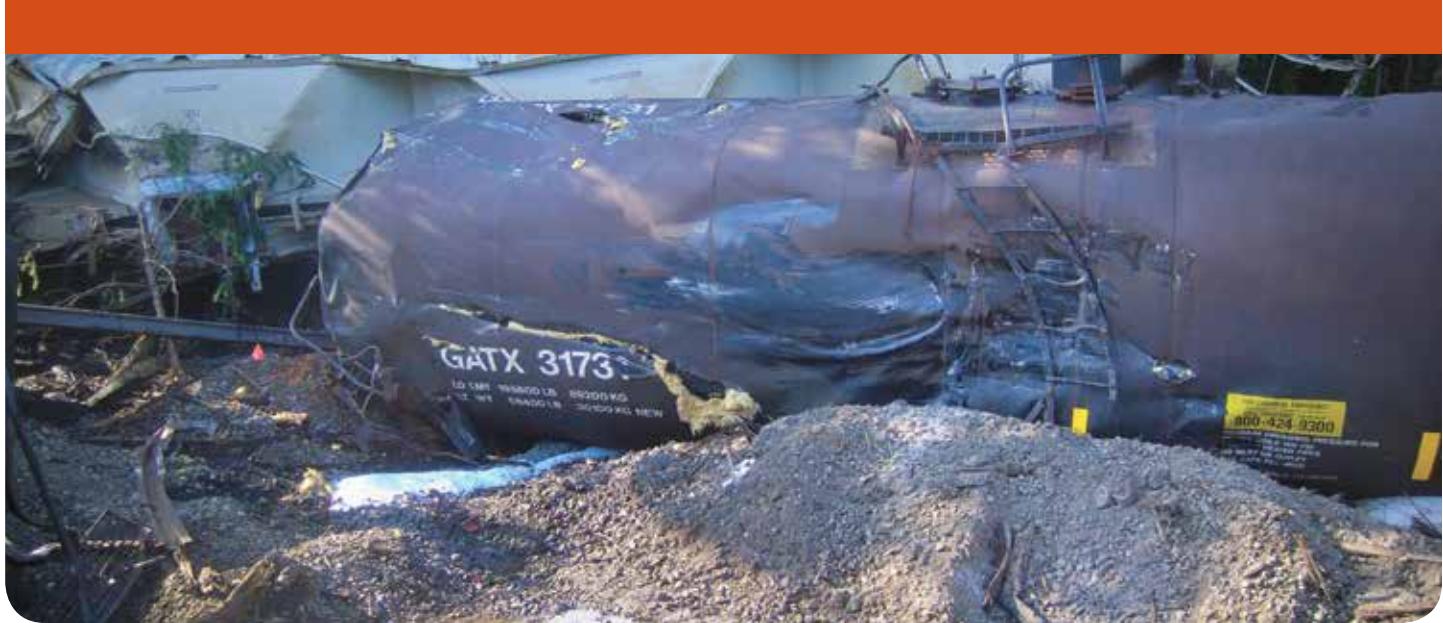
Approximately 100 residents living within a one-mile radius of the derailment were evacuated by the Columbus Fire Department while the fire burned. Officials said the burning ethanol, an alcohol compound commonly used in fuel, posed no environmental or health concerns. Residents were back in their homes by mid-afternoon.

Norfolk Southern spokesman Dave Pidgeon said the 98-car-freight train was traveling from Chicago to Linwood, NC. Around 11 cars ended up going off the tracks, including the three hauling ethanol. Fortunately, no one aboard the train was hurt. Patricia Reilly, a spokeswoman for the American Association of Railroads, said "freight train accidents are uncommon, given the volume of freight that is transported around the country by trains."

Last year was one of the safest years ever for U.S. railroads, Reilly said. "I think one accident is a horrible thing," said Reilly, "but it's always a good education to understand in context what that represents in the big picture."

The Columbus derailment is a great example of why it is important to always be prepared for emergencies that can affect your community.

AWR 147 Rail Car Incident Response is an eight-hour, awareness-level course developed to increase the knowledge of first responders in recognizing and characterizing the different types of rail cars, potential leaks, and courses of action to be taken based on initial site assessment.



South Carolina Puts Rail Car Training into Action

On June 10, 2010, first responders in South Carolina put the RDPC credo into action when responding to a potentially dangerous and highly volatile situation – leaking hazardous materials from overturned tankers in a 24-car train derailment on the Norfolk Southern line near the rural community of Liberty in Pickens County, South Carolina.

Just three months earlier at the request of state officials, the RDPC delivered a free, U.S. Department of Homeland Security (DHS)-certified training on rail car incident response in Greenville, about 30 miles from the scene of the train derailment, to help first responders prepare for and respond to similar emergencies. Twenty-one representatives from the South Carolina Department of Health and Environmental Control attended the training along with law enforcement, fire, and other first responders in and around the Greenville area.

"There is no way to put a value on training," said Lynn Fisher, Director of the Pickens County Emergency Management Agency, who worked with 13 other fire and hazardous materials response agencies in the area to contain the chemical spill. "If you aren't training and planning, you're planning to fail."

Further, at the scene of the train derailment, leftover field guides provided with the RDPC training were distributed to first responders at the scene of the derailment, thereby putting critical information in the hands of those who needed it, exactly when they needed it.

Fisher also added that "early actions by first responders prevented any injuries of any kind resulting from this incident."

The early actions included a mandatory evacuation order of 436 homes within a one-mile radius of the crash site when

several thousand gallons of isopropanol, commonly known as rubbing alcohol, and other chemicals began leaking from seven overturned tankers. Isopropanol, a highly flammable, toxic alcohol-based liquid, can cause dizziness, headaches, nausea, and other health symptoms.

Fisher said the other damaged tankers were carrying vinyl acetate (a colorless, water-insoluble flammable liquid), ethylene glycol (a colorless, odorless organic compound commonly used in automotive antifreeze), and toluene diisocyanate (TDI), (used in plastics and other chemical manufacturing).

"All of the tankers were leaking after the derailment, except for the TDI, but we didn't know the TDI tanker wasn't leaking until it was righted," he said.

A second door-to-door evacuation was carried out the next day after residents had been given the all-clear to return to their homes when Norfolk Southern attempted to upright the damaged rail car carrying TDI, a volatile, flammable and potentially toxic chemical that can cause breathing problems.

"The primary focus of Pickens County was public safety and getting things back to normal," Fisher said. "Had it not been for a regional response by several municipalities and counties, especially Anderson County, we would not have been as successful."

According to officials, air quality samples taken in vicinity of the train derailment showed negative contamination. Train traffic was restored within 30 hours after the derailment. The rail line is a major artery for Norfolk Southern and runs from Louisiana to Canada.

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