

Summary

Regional Incident Survey Team (RIST) Report

Central-0903-Fixed

Regional Incident Survey Teams (RIST)

RISTs gather information for the National Hazardous Materials Fusion Center. RISTs are composed of individuals from around the country who are skilled and experienced in hazardous materials (hazmat) response or experienced in the hazmat industry. RIST members are part of a team invited by a local jurisdiction or state authority to conduct a survey of an incident response of interest and record information from the responder's perspective. In no case is the data intended to be used to criticize or condemn response actions, but rather to share lessons learned and smart practices with other emergency responders who may face a similar response.

Incident Type

Fixed facility

Container

Pressurized cylinder/tube trailer

Hazardous Material

Hydrogen chloride, anhydrous, UN 1050

Overview



In the central region of the United States, a career fire department responded to a chemical facility for a reported leak of anhydrous hydrochloric acid from a tube trailer. The incident produced a chemical cloud in the area of the trailer and led to the sheltering-in-place of plant personnel on a warm August morning. The local fire department responded with their hazmat team to meet and work with the facility emergency response team to

contain the release. Together with the assistance of mutual aid hazmat companies, the cooperative response effort led to the successful mitigation of a potentially significant chemical release. The incident was a great example of how developing working relationships within your community pays dividends when emergencies occur. The lessons learned here can be applied to any department in the country: large or small, urban or rural, career, volunteer, or combination.

Lessons Learned/Smart Practices

- When working with personnel not associated with the fire service, ensure that all members can work within the incident command structure. Personnel operating outside of the system create command and control issues that can inhibit response activities
- Gas escaping a vessel under pressure through a small orifice leads to a reduction in temperature which can result in frosting on the vessel and/or valve assembly. This visible manifestation may assist responders in identifying a leaking container when faced with multiple containers in a leak area. Cooling valves may not readily reseat themselves when manipulated by emergency response workers. Applying warm water to the valve may assist in loosening up stiff valve assemblies and allow them to be properly re-seated. **Note: THIS EVOLUTION SHOULD NOT BE ATTEMPTED WITH A WATER REACTIVE PRODUCT AS IT MAY LEAD TO CORROSION AND SUBSEQUENT CATASTROPHIC FAILURE OF THE VALVE ASSEMBLY!**
- The value of having a chemist as part of the initial response to a hazmat incident

cannot be overstated. Incident commanders can focus on overall incident management functions and feel confident in the hazmat branch's recommendations for incident mitigation.

- Water spray systems can bring vapor clouds of anhydrous hydrogen chloride to the ground and greatly limit the size of a release involving this product. Sufficient water must be applied to effectively limit rapidly expanding vapor clouds.
- Many larger industries have on-site emergency response teams. The fire service should consider working with these teams and developing relationships to understand their capabilities and limitations, and introduce them to the incident command/management structure. During incident responses, it is critical to keep communications between industry and emergency services fluent and current. This will ensure that all members are aware of each others' actions, needs and priorities. The working relationship developed prior to this incident allowed crews to work seamlessly together to mitigate the problem.

For more information on this and other incidents visit the National Hazardous Materials Fusion Center at <http://www.hazmatfc.com/>