

Dallas Fire-Rescue Party Submittal

NTSBPLD18FR002

Executive Summary

Dallas Fire-Rescue (DFR) was a party participant in the National Transportation and Safety Board's (NTSB) investigations of three natural gas incidents that occurred on February 21, 22, and 23, 2018. Initially, DFR provided emergency fire-rescue and investigation services to all three incidents. Beginning on February 23, 2018 DFR established a longer-term fire-rescue Command Post in order to staff a hazardous materials monitoring team and to coordinate fire-rescue responses into the area, as well as to support efforts related to resident evacuations, medication and other item retrievals, and eventually the return of residents to their homes.

DFR has completed its fire incident reports related to these events and has no plans to publish additional analysis related to probable cause. Likewise, DFR recognizes the limitations of its expertise and intends to only provide recommendations and comments related to fire-rescue response and fire cause investigations, so that internal growth and positive change can be achieved. To that end, DFR is sharing this briefing with the NTSB and other party participants.

Since demobilization, DFR has supported the NTSB's investigation by way of participating in interviews, providing departmental procedures and investigation documents as requested, and reviewing and commenting on the NTSB's documents related to these incidents. Importantly, as a result of these incidents, a number of improvements in communication, response procedures, equipment, and training have taken place or are planned. We are committed to examining our actions and working to improve our services and operations to best meet the needs of our community.

Hazardous Materials Operations

Communications between Dallas Fire-Rescue and Atmos Energy Corporation (Atmos) have increased dramatically as a result of these incidents. Recent meetings have focused on building relationships (understanding "who's who" among the fire-rescue and gas utility responders), as well as the discussion and review of on-scene operating procedures. Atmos has provided training sessions, allowing DFR to learn at their facilities and from their personnel about gas-related emergencies. As a result, DFR first responders and members of the hazardous materials team report a better understanding of the division of labor and best practices during a gas incident response.

DFR Response Policies and Procedures have been changed as a result of these incidents. The initial emergency dispatch of gas-related incidents is managed by DFR's Communications Division, specifically Fire Dispatch. Previously, DFR had two incident types for dispatchers to choose from, based on a caller's description of the emergency: 12 = Natural Gas Leak or 12H = Natural Gas Leak with HazMat (High Occupancy). The incident type names were changed to: 12 = Single Family Residential Gas Leak (inside or outside) and 12H = Everything Except Single Family Residential Gas Leaks. These changes made it easier for dispatchers to correctly code gas-related incidents; they also provide a better representation of what responders can expect to find once they arrive at the emergency.

Following these incidents, DFR updated Standard Operating Procedures and used its system of internal communications ("Emergency Response Distributions") to provide education related to Hazardous Material incident response. DFR thoroughly shared and described the Classification of Gas Leaks as described by the Gas Piping and Technology Committee (GPRTC). This classification system includes Grades 1 through 3 and identifies specific criteria for each grade classification. This is an example of information that was reviewed and approved with the assistance of Atmos. Additionally, acceptable and expected actions by DFR during gas leak responses were explained and endorsed by Atmos. DFR policies were updated to include this information. New and notable action descriptions were included, such as: Standby for Suppression, Evacuation Assessment and Assistance, Traffic Management, Utility Control, and Air Monitoring. Finally, a policy still in review includes a step by step notification process to ensure

that DFR communicates with the responsible agency/agencies when an emergency is believed to have occurred as a result of a gas leak.

Hazardous materials training and equipment, specifically for first responders (rather than the Hazardous Materials Response Team (HMRT)) has improved. With the assistance of Atmos, DFR added Sensit Gold G2 4-gas monitors to its equipment cache. These monitors are being prepared for distribution to all Battalion Chief vehicles so that DFR's initial responders on-scene to Gas Leaks can use the same monitors for gas detection as the HMRT and Atmos. DFR has also issued the Toxirae 3 single-gas detector to all Engine and Truck companies. This detector replaces a different model of detector that were not consistently used by first responders, as noted in the NTSB interviews and subsequent reports. In contrast, DFR responders have found the Toxirae 3 to be simple to use, easy to calibrate, reliable, and quick to activate. This change has improved policy and procedure compliance throughout the Department when it comes to gas monitoring by first responding companies.

DFR has plans for additional Hazardous Materials training. We recognize it is the foundation for the safety and customer service our profession is built upon. A curriculum plan has been submitted for approval and it includes a combination of computer-based education and in-person classes delivered by the HMRT. The curriculum has a section dedicated to training dispatchers and giving them a plan to follow based on the responses of the caller to create the most effective initial response with the flexibility to increase the response as needed. Our acquisition of the Sensit Gold G2 monitors and prep for distribution highlighted the need for Battalion Chief and Command Technician training specifically on gas monitors and the curriculum has been expanded to include training on the broader subject of advanced command and control of hazardous material and atypical incidents.

DFR Arson Division

The NTSB's findings related to these incidents revealed the need for enhancements in policies, procedures, and training in the areas of Technical Review and Explosion Dynamics Training. Since these incidents, the Arson Division has implemented the practice of routine "Technical Reviews." These reviews take the form of an After-Action analysis and include a constructive critique of the written reports and performance of all fire investigators who were involved with an incident. A strong focus is placed on examining an investigator's reasoning and conclusions and ensuring that they are supported by the evidence obtained on scene and through a thorough, compliant investigation.

All members of the Arson Division are proficient in recognizing the occurrence of explosions and are knowledgeable of the procedures in place to investigate their unique effects. However, members can certainly benefit from additional training, especially since these kinds of incidents do not occur frequently. In particular, DFR plans for investigators to improve their abilities to respond to explosions that originate from utility lines and residential/commercial appliances by requiring training certified by the International Association of Arson Investigators.

Finally, the NTSB Emergency Response Factual report included a statement from DFR noting that "natural gas concerns found during a fire incident would be forwarded to the City of Dallas Building Inspection Division." Yet, as the NTSB report notes, this practice is not documented in any DFR policy or procedure. And, there is no indication that this happened after these particular incidents. This highlighted a gap in DFR policy that both the Arson Division and the HMRT believe can be addressed through their policies and practices so as to ensure that, moving forward, the proper authorities and/or responsible parties are notified so that the hazard can be mitigated before another emergency can occur. The importance of this kind of communication cannot be understated and could clearly make a difference in the safety of all Dallas residents.