

STATE FIRE MARSHAL'S OFFICE

Line of Duty Death Investigation



Investigation Number 04-426-07

Chief Gary Don Fox

Bluegrove Volunteer Fire Department

July 9, 2004

Texas Department of Insurance
Austin, Texas

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**TEXAS DEPARTMENT OF INSURANCE
STATE FIRE MARSHAL'S OFFICE
AUSTIN, TEXAS**

**Chief Gary Don Fox
Firefighter Line-of-Duty Death Investigation**

Bluegrove Volunteer Fire Department
Investigation Number 04-426-07
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Executive Summary

A 60-year-old volunteer Fire Chief died of an apparent heart attack, possibly precipitated by heat stress, after fighting a vehicle and field fire.

At 3:28 PM on July 9, 2004, the Bluegrove Volunteer Fire Department (VFD) received a report from a passerby of a burning vehicle in a hay field. Bluegrove VFD Chief Gary Don Fox responded alone to the call in a one-ton brush truck carrying 300 gallons of water. Upon arrival at the fire at 3:39 PM, the burning vehicle, a pickup truck with a round hay bale-carrying attachment, was well-involved and Chief Fox, assisted by the property owner driving the brush truck, turned his attention to extinguishing the fire in the field of cut hay and round bales. Fox was not wearing any firefighter protective equipment and was dressed in jeans and a long sleeve shirt.

Mutual aid assistance from the Henrietta Fire Department was requested at 3:58 PM - the approximate time that the Bluegrove Volunteer Fire Department brush truck ran out of water. Upon arrival of the Henrietta units, Chief Fox left the scene, complaining that he had become overheated, and returned to the fire station with the Bluegrove VFD brush truck. A Clay County deputy sheriff had spoken with Fox at the fire and described Fox as appearing pale and sweating profusely. Henrietta Fire Department units remained on the scene and extinguished the field and vehicle fire.

Bluegrove firefighters visited with Chief Fox at his home approximately 30 minutes after he returned the brush truck to the fire station. They described him as still appearing sweaty and hot. Fox declined any assistance and said he would wait for his wife's arrival. The firefighters spoke with Fox's wife outside the home when she arrived 10 minutes later. She told them that Chief Fox had called her to come home because he had gotten overheated. After Fox's wife entered the home, she observed Fox slumped on the couch, unresponsive, not breathing, and without a pulse. She called for help from the firefighters outside and called 911. Fox's wife (an Emergency Medical

Technician) and the firefighters initiated cardio-pulmonary resuscitation until the arrival of the ambulance 15 minutes later. An ambulance took Fox to Clay County Medical Center where he was pronounced dead. The attending emergency room physician stated that Fox had a heart attack which could have been brought on from heat-related illness. No autopsy was ordered.

Introduction

The Texas State Fire Marshal's Office (SFMO) was notified of the death on July 12, 2004. Investigator Clinton Williams was assigned the firefighter line-of-duty death (LODD) investigation of Bluegrove VFD Chief Gary Don Fox. Matthew Childs of the Wichita Falls Fire Department made the request on behalf of the Bluegrove VFD. Investigator Williams traveled to the scene on July 12, 2004, and did a preliminary background investigation, but did not speak to members of the fire department because Chief Fox's funeral was on this date.

The SFMO commenced this LODD investigation under the authority of Texas Government Code Section 417.0075. The statute requires SFMO to investigate the circumstances surrounding the death of the firefighter, including the cause and origin of the fire, the condition of the structure, and the suppression operation, to determine the factors that may have contributed to the death of Chief Fox. The State Fire Marshal is required to coordinate the investigative efforts of local government officials and may enlist established fire service organizations and private entities to assist in the investigation.

Origin and Cause Investigation

On July 13, 2004, Investigator Williams conducted a fire scene investigation. Investigator Williams found approximately 100 square yards of grass in a vacant field that had burned and a 1986 Chevy pickup that was completely destroyed by fire. Investigator Williams photographed the area and the vehicle.

Investigator Williams conducted an examination of the vehicle. Investigator Williams determined that the fire started at the rear of the vehicle, igniting the grass under and around the vehicle and the vehicle itself. The fire moved from the rear of the vehicle to the rear tires. Both rear tires on the vehicle were completely destroyed. The fire progressed from the grass underneath the vehicle, igniting the interior and then the engine compartment. Investigator Williams examined the underside of the vehicle and could find no wiring or any evidence of shorting that could have ignited the hay bale. The device used to lift the bales does not have any electrical source close to the hay bale that would have caused ignition. Investigator Williams did not find the truck's exhaust system's location to be a factor that could have caused ignition. Investigator Williams was unable to find a heat source for ignition of the hay bale or the underside of the vehicle.

Investigator Williams was unable to determine if the vehicle itself caused the grass underneath the vehicle to ignite or whether the hay bale self-combusted. These causes could not be eliminated. It is the opinion of Investigator Williams that the fire originated at the rear of the vehicle causing the grass and hay bale to ignite, subsequently causing the vehicle to ignite. The cause of the fire is listed as “undetermined.”

Building Structure and Systems

No buildings or structures played a factor in the fatality.

Investigation of the Death of the Firefighter

The victim in this investigation is Gary Don Fox, Fire Chief of the Bluegrove VFD. The victim returned to his residence after his involvement in fire suppression activities and suffered an apparent heart attack. The ambulance crew removed the victim from the residence to Clay County Memorial Hospital. The victim was pronounced dead at approximately 6:50 PM on July 9, 2004. There was no autopsy performed on the victim.

Personal Protective Equipment Evaluation

During the attack on the grass fire, Chief Fox was not wearing firefighter protective equipment. On July 19, 2004, Investigator Williams spoke with Bryan Wyrick of the Henrietta VFD. Wyrick stated that Chief Fox was wearing blue jeans, a long sleeve denim shirt, and bunker boots.

Medical Background of Victim

On July 12, 2004 Investigator Williams spoke with the attending emergency room physician, Dr. Parkey, in regard to Chief Fox’s death. Dr. Parkey stated that the victim arrived at the hospital approximately 45 minutes after the initial call. Dr. Parkey stated that the hospital’s resuscitation protocol was followed for approximately 30 minutes. When Chief Fox failed to respond to resuscitation attempts, he was pronounced dead. Dr. Parkey stated that there was no prior medical history showing heart disease or other medical conditions. Dr. Parkey stated that the patient was a smoker, but did not have a history of heart disease. Dr. Parkey did state that the heart attack could have been brought on from heat-related injuries.

Findings and Recommendations

The following findings of fact and recommendations are based upon nationally recognized consensus standards for the fire service. Volunteer fire departments are not required by state statute to comply with these standards. All fire departments should be aware of the content of the standards and may choose to develop programs based on them to increase the level of safety for fire department personnel.

Finding #1: Chief Gary Don Fox and the civilian driving the fire truck did not wear approved fire protection clothing when fighting the fire. Both were exposed to risk of serious injury or death if they had been overrun by the wildland fire.

Recommendation:

- Every fire department should establish standard operating procedures for the use of wildland protective clothing and equipment. Members who engage in or are exposed to the hazards of wildland fire-fighting operations should be provided with and use protective garments that meet the requirements of NFPA 1977, *Standard on Protective Clothing and Equipment for Wildland Fire Fighting* including approved helmets, gloves, and footwear. Members who engage in or are exposed to the hazards of wildland fire-fighting operations should be provided with an approved fire shelter, in a crush-resistive case, and wear it in such a way as to allow for rapid deployment. Protective clothing and equipment for wildland firefighting is available on a cost-shared basis from the Texas Forest Service. Information on this program is available from the following internet web site: <http://texasforests.tamu.edu/shared/article.asp?DocumentID=405&mc=fire>

NFPA 1500, Standard on Fire Department Occupational Safety and Health Program, Chapter 7.7

Finding #2: The Bluegrove Volunteer Fire Department did not have a requirement that all fire protection personnel undergo an annual medical and fitness evaluation.

Recommendations:

- Fire departments should make every reasonable effort to screen fire protection personnel for heart disease in an effort to reduce the number of heart attack deaths.
- The State Fire Marshal's Office recommends that all fire departments use NFPA 1500, *Standard on Fire Department Occupational Safety and Health Program*, as a guide for all fire protection operations.

NFPA 1500, *Standard on Fire Department Occupational Safety and Health Program*, Chapter 10.1.3 states: "Candidates and members who will engage in fire suppression shall meet the medical requirements specified in NFPA 1582, *Standard on Medical Requirements for Fire Fighters and Information for Fire Department Physicians*, prior to being medically certified for duty..."

- NFPA 1582, Chapter 7.1.1 states that every fire department shall establish and maintain a confidential medical evaluation program for members at the time of hire and annually thereafter, or as indicated by occupational exposure, illness, injury, or protracted absence from the job.
- In addition to the annual occupational medical evaluation, NFPA 1582 states that an annual Occupational Fitness Evaluation of members shall be conducted to include at least weight and body composition and strength, fitness, flexibility, and aerobic capacity evaluation as it relates to job-specific tasks for fire protection personnel.

Finding #3: Firefighters must take personal responsibility for their health and safety. Firefighters are encouraged to contact their personal physicians to discuss how their health relates to their duties and undergo periodic physical examinations.

Recommendations:

- One way to prevent or detect early disease is by having periodic health evaluations. The examinations and tests are designed to detect disease and monitor health status. Screening tests may catch a problem at an early, treatable stage.
- Periodic medical examinations by personal physicians and early detection of disease will reduce the number of on-duty volunteer and career fire fighter deaths attributed to cardiovascular disease and stroke.