

FIREFIGHTER FATALITY REPORT

SEA GIRT FIRE DEPARTMENT

SEA GIRT, NEW JERSEY

JANUARY 21, 1994



JULY 15, 1994

STATE OF NEW JERSEY
Christine Todd Whitman, Governor

DEPARTMENT OF COMMUNITY AFFAIRS
Harriet Derman, Commissioner

DIVISION OF FIRE SAFETY
William Cane, Acting Director

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INTRODUCTION

The investigation of this incident was conducted by the New Jersey Division of Fire Safety in conjunction with the New Jersey Department of Labor and the New Jersey Department of Health. This report was prepared in accordance with N.J.S.A. 52:27D - 192 *et. seq.*, Duties of the Division. The purpose of these firefighter casualty investigations is to report the causes of serious firefighter injuries or deaths and identify those measures which may be required to prevent the future occurrence of deaths and serious injuries under similar circumstances. In some cases new information may be developed, or old lessons reinforced, in an effort to prevent similar events in the future. Fire cause and origin investigation is not a part of this report.

The Division would like to acknowledge Sea Girt Fire Chief Ken Jelliff and his firefighters for their assistance in this investigation.

Comments and/or inquiries concerning this report may be addressed to the individual at the address listed below:

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SUMMARY

At 2338 hours on January 21, 1994 a structure fire was reported at the Governor's Court Apartments located at 534 Washington Boulevard in Sea Girt Borough, Monmouth County, New Jersey.

During the course of the incident, a 68 year old firefighter of the Sea Girt Fire Department, Glenn Thorn, suffered a heart attack. He died nineteen days later, on February 9, 1994. At the time he was stricken, Thorn had just arrived on the fire scene and was preparing to perform support functions at the exterior of the building.

The incident was investigated by the Monmouth County Fire Marshal's Office. The cause of the fire was determined to be a water pipe that ruptured due to extreme cold weather causing adjacent electrical equipment to short out. The situation was mitigated without further incident.

OVERVIEW

The Municipality

The Borough of Sea Girt is a 1.05 square mile¹ municipality on the New Jersey coast in Monmouth County. Located approximately five miles south of Asbury Park, Sea Girt is a typical shore community with both year round and seasonal residents.

Sea Girt is classified as suburban with a mix of residential and commercial occupancies. The 1990 census data showed 2,099 year round residents and a population density of 1,999.0 persons per square mile.²

Fire Department

The Sea Girt Fire Department (SGFD) is responsible for providing fire protection for the borough of Sea Girt. The department responds to approximately 50 alarms annually.

The department is comprised of 43 volunteer members operating from one station. The station, located on Fourth Avenue at Baltimore Boulevard, houses two engines, an aerial apparatus and a reserve engine. Additionally, the Chief responds directly to incident scenes in a command vehicle.

The Sea Girt Police Department (SGPD) provides dispatch service to the department and the Manasquan First Aid Squad (MFAS) provides primary Emergency Medical Services.

The department has an active local mutual aid system. They train and drill with various mutual aid fire departments.

The fire department utilizes Public Employees Occupational Safety and Health Act (PEOSHA) approved personal protective equipment (PPE). The department purchases, issues and maintains the following PPE: turnout coats and pants with Nomex shells and batt liners, leather gloves, fiber-glass helmets, Nomex hoods, rubber bunker boots and personal alert safety system (P.A.S.S.) devices.

¹Square mileage data taken from 1990 Statement of Financial Condition of Counties and Municipalities, Division of Local Government Services, New Jersey Department of Community Affairs

²Population data is taken from Total Resident Population, New Jersey, Counties and Municipalities, 1980 and 1990, State Data Center, New Jersey Department of Labor

Fire Location

The fire was located inside Apartment 11 of the Governor's Court Apartments located at 534 Washington Boulevard in Sea Girt. The building is comprised of 2 stories and contains 20 dwelling units. The building is of masonry construction and all apartments are separated by masonry block fire walls and reinforced concrete floor/ceiling assemblies. The building is not suppressed, but is equipped with an interconnected smoke detection system which was operational at the time of the incident. The building is classified as Use Group R-2 and Construction Type 2 according to the BOCA National Building Code. The building is classified as a Non-Life Hazard Use by the New Jersey Division of Fire Safety.

Weather

The weather conditions at the time of the incident were freezing rain and about 6° F.

Communications

The fire department's primary operating frequency is 154.980 MHz. A secondary frequency available is 153.280 MHz., Monmouth County frequency number three. No communications problems were noted at this incident.

Water Supply

The water supply in the Borough of Sea Girt is provided by a municipal water system. For this particular incident, no water problems were noted.

Mutual Aid

The fire department utilizes mutual aid from the surrounding fire departments to respond directly to incidents or to fill in at vacant stations. For this incident, mutual aid was provided by the Manasquan Fire Department (MFD), the South Wall Fire Department (SWFD) and the Spring Lake Heights Fire Department (SLHFD).

Emergency Medical Services

The Manasquan First Aid Squad (MFAS) provides Basic Life Support (BLS) for the Fire Department. Paramedics from MONOC (a Monmouth and Ocean Counties Hospital consortium) provide Advanced Life Support (ALS). Primary aeromedical evacuation (MEDIVAC) is provided by the New Jersey State Police through Northstar. EMS mutual aid is available.

For this incident, the MFAS had resources standing by on the fire scene within the first few minutes and provided BLS. ALS was provided by the paramedics of the MONOC upon their arrival.

The Incident

The fire was reported at 2338 hours on January 21, 1994 to the SGPD which, in turn, dispatched the SGFD.

Upon arrival, SGFD Chief Ken Jelliff began scene operations by sizing up the structure and establishing a command post. Realizing mutual aid would be necessary, he radioed dispatch to alert the neighboring towns of Manasquan, Wall and Spring Lake Heights which, in turn, dispatched their respective fire departments. The building residents were evacuating at this time.

When the first due engine arrived at the scene, Chief Jelliff directed its crew to proceed to a fire hydrant located at the front (Division A)³ of the building. After connecting to the hydrant, they advanced handlines and commenced primary search operations for possible trapped occupants, fire location and extension.

The second due engine was ordered by the Chief to reverse lay a supply line from Division A to a second hydrant.

Upon arrival, an aerial apparatus and an engine from the MFD were positioned and placed into operation at Division C of the structure, with the engine supplying the aerial from a nearby third hydrant.

A utility unit from the SWFD arrived and its crew was directed to perform support functions such as providing scene lighting and breathing air.

A second aerial apparatus was provided by the SLHFD but was not utilized.

At about this time, Firefighter Glenn Thorn arrived on the scene. Having missed the apparatus leaving the station, Thorn drove his own vehicle to the incident. After leaving his vehicle, he approached the structure. Members of the MFAS noticed that he began to stagger and immediately went to his aid. They found that he was experiencing symptoms of cardiac distress. After working to stabilize his condition on the scene, he was transported to Point Hospital in Point Pleasant.

The crews working in the structure within this time period located the seat of the fire and proceeded to extinguish it. Fire damage was limited to apartment 11, which was entirely gutted. Several other apartments suffered varying degrees of smoke damage and the apartment directly below the fire location was damaged by water.

³National Fire Academy, Incident Command System, Federal Emergency Management Agency, Emmitsburg, MD

Investigators from the Monmouth County Fire Marshal's Office determined the cause of the fire to be an electrical short circuit due to water from a burst pipe entering energized electrical equipment.

The Casualty Scenario

FF Glenn Thorn, a 68 year old member of the Sea Girt Fire Department, had 44 years of service at the time of his death. His assignment was that of outside support.

Prior to Thorn's collapse, he had arrived at the incident in his own vehicle and was proceeding to the involved building. Members of the MFAS immediately came to his aid when they noticed him staggering. He was found to be experiencing cardiac symptoms. After beginning treatment, the paramedics from MONOC arrived on the scene to assist. The MFAS then transported Thorn to Point Hospital. On January 24, 1994, Thorn was transferred to Our Lady of Lourdes Medical Center in Camden where he remained until his death on February 9, 1994.

Firefighter Thorn's Ailment

After FF Thorn was admitted to the Point Hospital, it was determined that he had suffered a heart attack. He was transferred to Our Lady of Lourdes Medical Center in Camden on January 24, 1994. Damage to his heart was extensive and two surgeries were performed. On February 9, 1994, FF Thorn died. The official cause of death was noted as myocardial infarction caused by coronary thrombosis.

COMMENTS

Personal Protective Equipment

An inspection was performed on FF Thorn's Personal Protective Equipment (PPE) which revealed that all components were in full compliance with the New Jersey Public Employees Occupational Safety and Health Act (PEOSHA). The PPE in this case played no apparent role in the outcome.

Critical Incident Stress Debriefing Team Use

The purpose of a CISD Team is to provide individual counseling, group sessions and, if necessary, referrals to members of an emergency response organization involved in traumatic events. These events could include death or serious injury of a co-worker, multiple deaths or the death of a child. The teams are made up of specially trained fire, police and EMS personnel. There are also mental health professionals who provide training and guidance to the team members and assist at the debriefing sessions. This should help avoid future stress related problems. The assistance provided by the CISD Team will help to sensitize the firefighters to the possibility of stress reactions. It allows the members to understand the range of normal reactions and provides a method to deal with the incident and its after effects. CISD Teams are regionalized in New Jersey and are part of a statewide network.

Chief Jelliff did not call in a Critical Incident Stress Debriefing (CISD) Team for this incident mostly due to the time interval between the incident and Thorn's subsequent death. However, the Chief reported that the CISD Team provided a significant amount of assistance to the fire department members in dealing with a serious injury to a firefighter that occurred in 1992. The then Bureau of Fire Safety conducted an investigation into the incident and issued a report in September 1992.

RECOMMENDATIONS

Cardiopulmonary Resuscitation

The Division of Fire Safety recommends that Cardiopulmonary Resuscitation (CPR) certification training be given to all firefighters, career and volunteer. The ability to immediately initiate CPR could be vital in reviving a civilian or firefighter at an incident scene, in training, during normal station duties, etc. The first few minutes are critical for providing CPR and if all firefighters are certified in its application there could be an increased chance of survival for any victims that may be encountered.

With the protection from infectious diseases of members who provide EMS treatment being critical, fire departments should also issue each CPR trained member a CPR pocket mask with a one way valve and appropriate gloves, or have them immediately available for use on apparatus.

Fire departments should also consider the purchase of minimum emergency medical services equipment, such as oxygen, blood pressure cuffs and an assortment of bandages and immobilization devices, to allow trained personnel to handle incidents while awaiting the arrival of EMS.

Physical Examinations for Firefighters

The Division of Fire Safety recommends that firefighters be given physical examinations upon entry and periodically thereafter. Information for firefighter physical qualifications can be found in NFPA Standard 1582; 1992 *ed.*; *Standard on Medical Requirements for Firefighters*.⁴ Additional information may be obtained by contacting the New Jersey Department of Health, Public Employees Occupational Safety and Health Program, CN 360, Trenton, NJ 08625-0360; (609) 984-1863.

Firefighter Physical Fitness

The Division of Fire Safety recommends that fire departments encourage firefighter physical fitness. NFPA Standard 1500; 1992 *ed.*; *Fire Department Occupational Safety and Health Program*, suggests that fire departments "establish and provide a physical fitness program to enable members to develop and maintain an appropriate level of fitness to safely perform their assigned functions."⁵

⁴National Fire Protection Association Standard 1582, *Standard on Medical Requirements for Fighters*, 1992 edition, National Fire Protection Association, Quincy, MA

⁵National Fire Protection Association Standard 1500, *Fire Department Occupational Safety and Health Program*, 1992 edition, National Fire Protection Association, Quincy, MA

Critical Incident Stress Debriefing Team Use

The Division of Fire Safety recommends the notification and use of CISD teams when the CISD trigger events are found to be present. Such significant events may include⁶:

- > line of duty death of a co-worker
- > mass casualty incidents
- > death of a child
- > death occurring after prolonged rescue efforts
- > when a victim reminds an emergency worker of a loved one
- > during highly dangerous or highly visible events
- > when the emergency worker influences death or injury
- > co-worker suicides
- > any other unspecified highly traumatic event

Further information on critical incident stress debriefing is available from the CISD Network of New Jersey at (201) 592-3528. The statewide emergency contact number for activation of a CISD team is (609) 394-3600.

⁶Trigger events information from the Critical Incident Stress Debriefing Network of New Jersey

CONCLUSION

The Sea Girt Fire Department displayed a high level of professionalism in handling this incident, especially considering the extreme weather conditions at the time. Chief Jelliff and his firefighters did a commendable job in mitigating the incident and in providing appropriate Emergency Medical Services to their stricken comrade.

- AFTERWORD

Events such as these can prove trying to fire department members. However, it must be remembered that in such instances, the department administrators must take the responsibility from the outset to make certain the proper actions are initiated to provide needed assistance to the firefighter's family and to ensure that investigating agencies will have the necessary documents, information and evidence to conduct a thorough assessment of the incident. The Sea Girt Fire Department fulfilled their obligation in this respect.

As a reminder, in the event of a line of duty firefighter serious injury or death, fire departments should immediately contact the Division of Fire Safety to report the casualty and obtain necessary information regarding actions to take. Additionally, equipment that was involved with the injury or death and all firefighter protective clothing and equipment, including SCBA, should be impounded to preserve it for evidence. Written statements and/or depositions should be obtained from firefighters who may have been involved and from any other witnesses to the incident.

Additionally, the Division of Fire Safety has made available to all fire departments in the state the *Firefighter Line of Duty Death and Serious Injury Guidelines*. If your department has not received a copy and would like one, please call the Fire Department Programs Unit at (609) 633-6071.

Following these guidelines will help ensure that the family of the fallen firefighter will receive the benefits and assistance they are entitled to and will aid in the process of any investigations that may follow.