

# **FIREFIGHTER FATALITY REPORT**

## **CARLSTADT FIRE DEPARTMENT**

### **CARLSTADT, NEW JERSEY**

**DECEMBER 23, 1993**



**June 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 are not a part of this report.

The Division would like to acknowledge Carlstadt Fire Chief Dennis Monks and his firefighters for their assistance in this investigation and, in particular, Fire Official Bob Moore. Additionally, the Division wishes to thank the Bergen County Medical Examiner's office for their cooperation.

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

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## ***SUMMARY***

At 1638 hours on December 23, 1993 a gas leak was reported at 100 Amor Avenue in the Borough of Carlstadt, Bergen County, New Jersey.

During the course of the incident, a 61 year old firefighter of the Carlstadt Fire Department, John Brentzel, suffered a heart attack and subsequently died. At the time, Brentzel was performing support functions at the exterior of the building.

The gas leak was determined to have been caused by a forklift, operating inside the building, which struck a .75 inch gas pipe. The situation was mitigated without further incident.

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# OVERVIEW

## *The Municipality*

The Borough of Carlstadt is a 4.20 square mile<sup>1</sup> municipality located in the northeastern part of the state in Bergen County.

Carlstadt is classified as urban - suburban with a mix of residential and commercial occupancies. The 1990 census data showed 5,510 year round residents and a population density of 1,311.9 persons per square mile.<sup>2</sup>

## *Fire Department*

The Carlstadt Fire Department (CFD) is responsible for providing fire protection for the borough of Carlstadt. The department responds to approximately 100 alarms annually.

The department is comprised of 82 volunteer members and operates two stations.

The primary station located at 500 Madison Street houses fire apparatus which consists of 2 engines, an aerial apparatus and a rescue squad. One engine and a boat are housed in the second station located on Washington avenue.

The Carlstadt Police Department (CPD) provides dispatch service to the fire department and the Carlstadt First Aid Squad (CFAS) 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.

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

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

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### *Fire Location*

The gas leak that the CFD responded to was located inside a building at 100 Amor Avenue in Carlstadt Borough. The building houses The Northern Eagle Beverage Company, a wholesale beverage distributor. The construction of the building was of concrete block and was classified as Use Group S-1 and Construction Type 3 according to the BOCA National Building Code. Additionally, the building was registered with the Division of Fire Safety and classified as a Life Hazard Use Code BI03.

### *Weather*

The weather at the time of the incident was clear and about 25° F.

### *Communications*

The fire department's primary operating frequency is 154.160 MHz. Secondary frequencies available are 154.010 and 154.280, the Bergen County Mutual Aid Frequency. No communication problems were noted at this incident.

### *Water Supply*

The water supply in the Borough of Carlstadt is provided by a municipal water system. For this particular incident, no water was utilized.

### *Mutual Aid*

The fire department utilizes mutual aid from the surrounding fire departments which respond directly to incidents or fill in at vacant stations.

### *Emergency Medical Services*

The Carlstadt First Aid Squad (CFAS) provides Basic Life Support (BLS) for the Fire Department. Paramedics from the Hackensack Medical Center (HMC) 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 East Rutherford Fire Department Emergency Squad (ERFDES) provided BLS due to the fact that the CFAS was unable to provide sufficient staffing for its ambulance. ALS was provided by the paramedics of the HMC.

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### *The Incident*

The gas leak at the Northern Eagle Beverage Company, 100 Amor Avenue, Carlstadt, was reported to the CPD at 1638 hours which in turn dispatched the CFD.

Upon arrival, CFD Chief Dennis Monks was advised that a forklift had impacted with and broken a .75 inch natural gas line that supplied a ceiling space heater. He was also informed that the main gas supply line to the building had not yet been shut down. At this time employees who had been working in the area were evacuating the building.

When the first due engine (701) arrived at the scene, Chief Monks directed its crew to turn off the flow of gas at the main gas supply line. Public Service Electric and Gas was also notified of the situation at this time and was requested to respond to the scene to effectuate repairs.

Upon arrival of the second due engine (702), the Chief directed its driver to proceed to a nearby hydrant and have the crew prepare to supply water to the sprinkler system, if necessary.

Chief Monks ordered the third due engine (703), driven by FF John Brentzel, to standby at a second hydrant located approximately 200 feet away from the building.

As the remaining units arrived, (truck 704 and rescue company 705), they were assigned the tasks of ventilation and establishing a command post, respectively.

At this time Chief Monks received a radio transmission from engine 703 reporting that a firefighter had collapsed. Monks then transferred command to Battalion Chief Paul Stabile and proceeded to the location of engine 703. Upon the Chief's arrival at that location, he witnessed FF Brentzel lying on the ground. After finding no respiration or pulse, Monks radioed for the paramedics from the Hackensack Medical Center and, with FF William Stanley, began to administer Cardiopulmonary Resuscitation (CPR). The CFAS had already been routinely dispatched for the initial incident, which is the standard dispatch procedure. However, being unable to assemble a crew, the CFAS was not yet in service. Coincidentally, the East Rutherford Fire Department Emergency Squad (ERFDES) was monitoring the Carlstadt radio frequency while returning from a call. Realizing the CFAS was not responding, the driver of the ERFDRS unit advised Chief Monks via radio that they could respond, which they did. Upon arrival, the paramedics and the ERFDRS continued treatment of FF Brentzel and subsequently transported him to Hackensack Medical Center. Chief Monks accompanied Brentzel in the ambulance. CFD Deputy Chief John Ondorf was directed to take the Chief's vehicle to pick up Mrs. Brentzel at her home and proceed to the hospital. At 1759 hours FF John Brentzel expired at Hackensack Medical Center.

### *The Casualty Scenario*

FF John Brentzel, a 61 year old member of the Carlstadt Fire Department, had 22 years of service at the time of his death. His current assignment was that of fire apparatus driver and outside support provider.

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Prior to FF Brentzel's collapse, he, and the crew of engine 703 had arrived at their assigned location, that of a hydrant located approximately 200 feet from the Northern Eagle Beverage Company building. Brentzel and the other engine crew members, Richard Mitura, Charles Dilkes and William Stanley, dismounted the engine and were standing to the curb side of the engine, talking. Suddenly, Brentzel sat down on the curb and subsequently fell over from the sitting position onto his face. The three other firefighters called to Brentzel but received no response. FFs Dilkes and Mitura turned Brentzel onto his back and Dilkes checked his mouth for an obstruction but found none. FF Stanley radioed that a firefighter was down and help was needed. At this point, the three firefighters determined that Brentzel had a pulse but his breathing was labored. As Chief Monks arrived at their location, Brentzel's respiration and pulse became undetectable. Monks and Stanley began CPR and continued until personnel from the ERFDES and paramedics arrived and continued treatment and provided transportation to the Hackensack Medical Center.

### *Firefighter Brentzel's Ailment*

Through evidence obtained by an autopsy performed on John Brentzel by the Bergen County Medical Examiner's Office, it was learned that all of his coronary arteries contained blockages of between 50% and 90% due to a buildup of plaque. The official cause of death was listed as Occlusive Coronary Arteriosclerosis.



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# ***COMMENTS***

## ***Personal Protective Equipment***

An inspection was performed on FF Brentzel'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 role in the outcome.

## ***Critical Incident Stress Debriefing Team Use***

Chief Monks called in the Critical Incident Stress Debriefing (CISD) Team because of this incident. 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 team is 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. CISD Teams are regionalized in New Jersey and are part of a statewide network.

The Chief reported that the CISD Team provided a significant amount of assistance to the fire department members in dealing with this incident.

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.

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# ***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 an 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*<sup>3</sup>. 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."<sup>4</sup>

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<sup>3</sup>National Fire Protection Association Standard 1582, *Standard on Medical Requirements for Firefighters*, 1992 edition, National Fire Protection Association, Quincy, MA

<sup>4</sup>National Fire Protection Association Standard 1500, *Fire Department Occupational Safety and Health Program*, 1992 edition, National Fire Protection Association, Quincy, MA

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### *Critical Incident Stress Debriefing Team Use*

The use of the CISD Team in this instance was very helpful to the firefighters involved.

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 include<sup>5</sup>:

- > 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.

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<sup>5</sup>Trigger events information from the Critical Incident Stress Debriefing Network of New Jersey

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## *CONCLUSION*

The Carlstadt Fire Department exhibited a great deal of professionalism in handling an extremely hazardous condition. Chief Monks and his firefighters did a commendable job in mitigating the incident and in providing appropriate Emergency Medical Services to their stricken comrade.

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 Carlstadt 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 Fire Department Programs Unit, Division of Fire Safety at (609) 633-6071 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 so as to preserve it for evidence. Written statements and/or depositions should be obtained from firefighters who may have been involved with the incident and from any other witnesses.

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.