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My name is Brian H. Hurst. I am a career Fire Lieutenant for the Town of Manchester Fire Rescue EMS. I am asking for support of House Bill No. 6956 "AN ACT CONCERNING WORKERS' COMPENSATION COVERAGE FOR FIREFIGHTERS AND POLICE OFFICERS". This bill is designed to treat all fire fighters, hired after July 1, 1996, that work for a municipality the same way, regardless if they are a career fire fighter or a volunteer fire fighter.

The Connecticut Heart and Hypertension law was created in recognition of the unique hazards associated with the fire fighting profession. In 1995, the law was changed. The statute no longer applies to new employees in the Fire Service, those hired after July 1, 1996. This law continues to provide a much needed benefit to other similar groups including:

- Volunteer Fire Fighters, Volunteer Ambulance Members (Section 7-314a)
- State Police (Section 29-4a)
- University Security Force, Aeronautic Operations of the Department of Transportation, Capital Police, Correction Officers and any State Employee designated as Hazardous Duty (Section 5-145a)
- Motor Vehicle Inspectors (Section 5-145b)
- Detectives & Inspectors in the Division of Criminal Justice (Section 5-145c)

We are currently seeking the coverage provided to volunteer fire fighters as covered in Connecticut Law section 7-314a to cover those whose municipal hire dates are after July 1, 1996.

Medical research shows that hypertension is a job related hazard for most first responders, including firefighters. Below is evidence of recent research conducted by the City of Providence and Rhode Island Hospital.

Recently, cyanide played a part in three fires in Providence, Rhode Island, which sent several firefighters to the hospital with cyanide poisoning one cardiac arrest. While the fires are still under investigation, it is believed the source of the cyanide was from items releasing the gas while burning in the homes and businesses. The Providence Fire Department formed a task force to conduct a review of the facts that led to the exposure and to take appropriate steps to ensure firefighters are aware of the harmful affects of cyanide poisoning to firefighters.

On March 23, 2006, after a fire in a fast-food restaurant at 1197 Broad Street, a Providence firefighter began experiencing symptoms that included headache, weakness, fatigue, shortness of breath, and a cough. After the fire, while cleaning up back at the station, several other firefighters observed that the member was talking incoherently.

The member was reluctant to seek medical attention but eventually was transported to Rhode Island Hospital, a Level I trauma center and teaching hospital affiliated with Brown University Medical School. While he was being treated in the emergency room for smoke inhalation, Dr. Kenneth Williams, MD, FACEP, an associate professor at Brown Medical School, happened to walk past. On seeing the member's condition, Dr. Williams instructed the attending physicians to test for cyanide poisoning in addition to carbon monoxide. When the results came back, they showed that the member indeed had toxic levels of cyanide in his blood. He was then given a cyanide antidote. Had the member not been tested for cyanide poisoning his symptoms could of led to a stroke or a heart attack.

As a precaution, all members who operated at 1197 Broad Street and experienced any symptoms associated with cyanide poisoning were instructed to go to Rhode Island Hospital to have their blood tested. Sixteen members went for testing, and three additional members were found to have toxic levels of cyanide. The assumption among firefighters then became that there was something unusual about the Broad Street fire that led to the cyanide poisonings.

After two more fires over the next 14 hours resulted in four more members being found to have toxic levels of cyanide, including one who suffered a heart attack, the magnitude of what had happened began to dawn on firefighters and doctors alike.

After a thorough investigation into what occurred in Providence, it appears that cyanide poisoning is neither unusual nor uncommon among firefighters. In fact, research increasingly is pointing to the fact that hydrogen cyanide commonly is present in high quantities at fires. Cyanide poisoning may be responsible for a variety of symptoms and medical problems commonly experienced by firefighters including stroke and cardiac arrest.

On March 24, 2006, Providence firefighter, Kenneth Baker, suffered a heart attack while operating at the scene of a fire. He was promptly attended to by members of the Providence Fire Department. CPR was initiated and advanced life support measures were taken, including intubation, defibrillation, and the administration of intravenous cardiac medications. Ken Baker survived but continues a long road to recovery.

Because of the connection between Baker's cyanide level and his heart attack several very important issues were raised.

First, cyanide can cause heart arrhythmias. According to Dr. Stephen Borron, a noted expert in the medical toxicology of cyanide, cyanide can cause tachycardia, bradycardia, sinoventricular tachyarrhythmia (SVT), atrioventricular (AV) blocks, ventricular arrhythmias, ischemic ECG changes, and eventual asystole. Other experts have concluded that cyanide can cause also atrial fibrillation, ectopic ventricular beats, abnormal QRS complex, and sinus bradycardia.

Furthermore, researchers Baskan and Brewer have concluded that death from cyanide may be delayed up to eight days after the exposure. The National Institutes for Occupational Safety and Health (NIOSH) has recognized that

electrocardiogram changes can be observed two to three weeks after a fire-related cyanide exposure.

Second, heart attack deaths account for between 40 and 50 firefighter fatalities each year. Fortunately, Baker will not be counted as one of those firefighters for 2006, but he very well could have been had it not been for the outstanding pre-hospital care he received on the scene from members of the Providence Fire Department and then at the Rhode Island Hospital Trauma Center.

According to the National Fire Protection Association, between 200 and 300 firefighters a year suffer nonfatal heart attacks at fire scenes. During the course of the investigation into the cyanide poisonings, the committee members reflected on these numbers repeatedly. The committee wrote in its report:

How many of these 200 to 300 fire-scene heart attacks remain non-fatal due to the outstanding ALS care provided by firefighters and paramedics at fire scenes, combined with outstanding treatment in our nation's trauma centers? Very few professions operate with ALS units standing by when they work.

Had 200 to 300 workplace heart attacks per year been occurring among miners while they are in mines, among commercial fisherman while they are at sea, or timber loggers while in the woods, a significant number of those heart attacks could be expected to be fatal due to the lag time of securing ALS care.

I ask the committee and legislators to consider this as evidence of the growing number of hazards we face while fulfilling our duties. Similar heart and hypertension benefit coverage for all firefighters and first responders should be established, regardless of their status of career or volunteer.

Sincerely,

Brian H. Hurst