

Members are urged to review the following references:

- "CO Detector Activation--The New Nuisance Alarm?," by Lieutenant James T. O'Connor, in the 1st/2007 issue of *WNYF*.
- "The Hazards of Carbon Monoxide," by Lieutenant Richard Curriel, in the 3rd/2009 issue of *WNYF*.
- "Carbon Monoxide Investigations--They May Not Be Routine Calls," by Lieutenant Christopher Flatley, in the 3rd/2009 issue of *WNYF*.
- *Firefighting Procedures*, Haz-Mat 4, Carbon Monoxide.
- *EMS CME*, July 2009, Article 1, Molecular Killers.

the building as units ventilated and continued to monitor. At this time, Haz-Mat 1, Squad 18 (Haz-Mat Tech Unit) and the Haz-Mat Battalion, along with a Verizon representative, were requested to respond. Throughout the operation, carbon monoxide levels elevated to 1100 ppm and the temperature of the batteries reached 186 degrees Fahrenheit, approaching the lower explosive limit.

The electricians and battery mechanics could not operate until ventilation procedures were implemented and atmospheric conditions were safe. It took several hours for levels on the first floor to drop in order for electricians to physically disconnect cables from the first-floor rectifiers that were connected to the battery room below.

A simple direct current (DC) disconnect at the location of the batteries could have prevented increased carbon monoxide levels, discharge of hydrogen gas and a possible explosion and release of sulfuric acid from the overheated batteries that continued to cook until the cables were disconnected. Also, the electricians had to operate with live electric. FDNY units operated for more than seven hours at this incident.

With the increased use of battery racks throughout New York City, some measures to consider in regard to battery rooms include:

- Remote DC disconnect for batteries.
- Hydrogen detection device that is connected to a Class 3 system.
- Carbon monoxide detection connected to a Class 3 system.
- Heat detection connected to a Class 3 system.

- Sprinkler protection.
- Ventilation system.

Many buildings throughout the City have uninterrupted power supply (UPS) systems for their computer networks. These UPS systems are battery-powered systems, designed to prevent a surge or dip in power when a building loses utility company power and before the back-up generator comes on-line and picks up the load. The location of UPS systems should be noted on CIDS.

## Conclusion

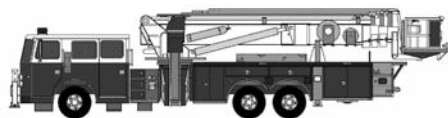
These are just a few of the many lessons learned from a variety of incidents throughout the City. Members with skill sets from a previous life or from certifications held outside the job often are important resources in early identification of potential hazards, especially when the cause of the CO is not obvious. Carbon monoxide has been called the *silent killer*. By sharing the lessons learned, we don't need to be silent about what we have learned.

Officers involved in these unusual occurrences are encouraged to gather as much information as possible and use mechanisms, such as the *Pass It On Program* (ABC 1-97), to share that information with all members of the Department. The author thanks all those who contributed their stories to improve the response of the FDNY to these potentially lethal events.



## About the Author...

Lieutenant Christopher Flatley is a 21-year veteran of the FDNY. He is assigned to Tower Ladder 21. Previously, he was assigned to Ladder 2. He is a nationally certified Fire Instructor I and has written articles for several other fire service publications, including *Fire Engineering*. He writes frequently for *WNYF*.



# Taking Up

April -June, 2010



### Deputy Chief

Patrick J. Savage Division 3

### Battalion Chiefs

Michael P. Borst Battalion 51  
Jack Taddeo Battalion 8

### Captains

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Daniel J. McGovern Ladder 144  
Joseph Petrucci Engine 263  
Robert D. Sohmer Ladder 85  
Thomas J. Thompson  
Engine 306

### Lieutenants

Norman J. Anderson Engine 240  
Stephen J. Carbone Engine 307  
Brian K. Fitzpatrick Battalion 23  
Kevin A. Griffith Ladder 106  
Mark S. Kurtz Engine 297  
Patrick G. Martin Engine 305  
Brian A. McConville Battalion 46  
Stephen E. McNally Battalion 18

Anthony W. Mikolich

Ladder 155

Patrick D. Murphy Ladder 135

Anthony T. Nicosia Ladder 82

Steven J. Nuzzo Battalion 17

Paul D. Rhodes Ladder 118

Giancarlo Sini Engine 163

Stephen J. Wall, Jr. Engine 42

### Firefighters

Joseph P. Abramski Ladder 155

Frank E. Barton Battalion 23

James M. Brzezinski

Ladder 40

Michael A. Callahan Ladder 26

Joseph D. Cicha Ladder 104

Anthony S. Cittadini Ladder 85

Kenneth M. Collins Engine 216

James G. Corley Ladder 14

Brian T. Daly Ladder 173

James Donnelly Ladder 8

Robert B. Fitzgibbon

Engine 47

Garry G. Giannandrea

Battalion 52

Daniel P. Gilmore Engine 299

Brian S. Glenn Ladder 151

John M. Gorman Ladder 166

Alexander Gryner Rescue 3

Robert H. Halliday Ladder 162

Hugo S. Herold Battalion 13

Stephen G. Humenesky

Engine 301

Edward Immel Engine 303

Stephen R. Incarnato

Engine 268

Kevin J. Kelly Ladder 138

Robert W. Kelly Ladder 110

Michael P. Kennedy Ladder 43

Sean P. Kern Ladder 151

Mark P. Koetzner Ladder 143

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John C. Maloney Engine 250

John G. McAuliff Ladder 152

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Gregory A. Patsos Squad 252

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Kirk T. Pritchard Ladder 1

Chris Robinson Engine 286

Michael T. Satriana Engine 246

Paul M. Scalard Engine 81

Neil C. Schoer Engine 164

Jason A. Silver Engine 307

Harry F. Stefandel Engine 221

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Charles C. Thompson

Ladder 167

Damean A. Timm Ladder 48

Robert J. Tomasulo Engine 239

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