

July 20, 2007

# Workers Had Repaired Leak at Site of Steam Blast

By [PATRICK McGEEHAN](#) and [KEN BELSON](#)

Consolidated Edison workers in March repaired a leaking steam main under 41st Street at Lexington Avenue, the site of Wednesday's explosion in Midtown, a senior company official said yesterday. But he said the company probably would not know for several days whether that repair had a connection to the explosion.

Bill Longhi, Con Ed's senior vice president for central operations, said that on March 14 repair crews patched a minor leak where two segments of the pipe are joined.

Since then, he said, there had been no signs of trouble at the site, which he said was inspected on June 8 and again at midday on Wednesday, less than seven hours before the explosion. The blast left one woman dead and more than 40 people injured.

The explosion has called into question how well Con Ed maintains its 105-mile steam system, a vital energy conduit for hundreds of commercial and residential buildings in Manhattan. In many instances, inspection means a simple visual observation of steam rising from the street.

About 11:30 a.m. on Wednesday, after an unusually heavy rainstorm, a Con Ed crew conducted a visual check for vapor at the site, an indication that water had pooled around the pipe. But the workers reported no cause for concern.

But that view conflicted with those of some people who work in the neighborhood and have complained about large amounts of steam rising from the street there.

Miyoung Beyn, 34, whose family owns the Old Bridge Gourmet Deli on Lexington Avenue near the site, said that on her way to work about a month ago, "I couldn't even see people crossing, it was so bad."

Mr. Longhi said that on June 10, Con Ed responded to complaints about a steam leak near the intersection, but that the source was not the main pipe that exploded on Wednesday. Instead, the problem was in another, smaller pipe about 25 feet east.

Mr. Longhi said the company's investigators would not be able to determine the cause of the explosion until they could climb down into the crater left at the intersection. The ruptured pipe, which was wrapped in asbestos, was 20 inches in diameter and divided

into segments 20 feet long. It lay about 15 feet below the street amid a tangle of wires, cables and sewer pipes.

Any inspection, he said, could not be done before cleanup of the asbestos-laden debris scattered for blocks around the crater.

At a news conference yesterday, Mayor [Michael R. Bloomberg](#) said that a dozen tests of air in the neighborhood had detected no traces of asbestos. Asbestos was, however, found in 14 of 56 samples of the muddy debris that rained on people as they fled in panic, the mayor said.

After the explosion, the police created a “frozen zone” for several blocks around Grand Central Terminal, closing off 40th to 43rd Streets between Madison and Third Avenues to most people.

The neighborhood will remain a traffic bottleneck for the next several days, the mayor said. A city spokesman said that Lexington Avenue between 34th and 57th Streets would stay closed, but that Third Avenue should be open today.

“Our strategy is to keep shrinking the zone,” the mayor said, adding that contractors and some local business owners had been escorted into the frozen zone when needed.

None of Con Ed’s customers lost all power, but 18 of them initially lost the high-pressure steam supplied by the ruptured 83-year-old pipe, which is used to heat and cool their buildings. By yesterday afternoon, Con Ed had restored steam to the Chrysler Building and expected to reconnect to as many as 11 other customers by today, Mr. Longhi said.

Mr. Longhi said that although the ruptured pipe, which was steel, was installed in 1924, its age should not have been an issue because some of the pipe in the steam network is 100 or more years old and the particular type of connection in that pipe has no history of failing.

Since a 1989 steam pipe explosion in Gramercy Park, which killed three people and spewed asbestos through the neighborhood, Con Ed has replaced all of its cast-iron pipe with stronger steel pipe and removed or replaced more than 200 vulnerable pipe joints, Mr. Longhi said.

The company also has replaced the asbestos insulation with woven fiberglass in all of its manholes and anywhere its crews have repaired steam pipes, he said. It has left the asbestos wrapped around the pipes in other places because removing it would involve digging up most of the streets in Manhattan, he said. Last year, the company invested \$101 million, or 5.7 percent of its total expenditures, in maintaining and expanding the steam system.

As antiquated as steam power may sound, it is a vital presence in modern Manhattan. Nearly 95 percent of commercial buildings south of 96th Street use steam provided by

Con Ed, including many landmarks, like the [Empire State Building](#) and Rockefeller Center, and newer buildings like the Time Warner Center, as well as hospitals, colleges and museums.

Steam remains a constant in New York — and other Northern cities like Boston, Chicago and Philadelphia — largely because it saves space. Instead of installing boilers or other bulky and expensive machinery, landlords just need to accept a 16-inch pipe from outside the building to carry steam inside.

“Switching off steam is never going to happen,” said Steve Mosto, the chief executive of Mosto Technologies, which helps commercial landlords maintain their steam systems. “It’s as critical and inherent to the city as electricity. The price of real estate is so high that it’s not worth giving up the space to put in your own boiler or steam turbine.”

In colder months, the steam is used primarily for heating, while in the warmer months it is used to run cooling systems. High-pressure steam powers turbines that drive compressors that condense refrigerant into liquids that run air-conditioning systems. Steam is also used to produce hot water, and is depended on by dry cleaners and hospitals, which use it to sterilize instruments and humidify operating rooms.

Con Edison, which in the 1950s absorbed the underground network of the old New York Steam Corporation, generates 5 percent to 6 percent of its revenue from sales of steam.

In some ways, it is a more eco-friendly fuel, because in many cases the steam is a byproduct of electricity generation. And since steam pipes are buried, they also are less susceptible to extreme weather conditions.

“Steam was green before green was fashionable,” said Mitchell Moss, a professor of urban policy and planning at [New York University](#). “I’ll take our steam system any day over the suburban power lines that fail every time there is an ice storm.”