

August 7, 2007

Leroy G. Comrie Jr.
Chairman
Committee on Consumer Affairs
New York City Council
City Hall
New York NY 10007

Dear Chairman Comrie:

Thank you for the opportunity to provide your Committee on Consumer Affairs with an update on the New York State Department of Public Service's official investigation into the July 18, 2007 Lexington Avenue steam pipe rupture, along with remarks about the reliability of Consolidated Edison Company of New York, Inc. steam distribution system.

Staff of the Department commenced an official investigation of the steam pipe rupture shortly after its occurrence. Staff has maintained a constant presence at the failure site, and they have closely monitored clean-up, steam service restoration, and evidence retrieval efforts.

For much greater detail on the specific activities of the Department in this regard please see my prepared remarks.

Please feel free to contact me directly if you have any questions or comments regarding our procedures as related to this investigation.

Sincerely,

Patricia L. Acampora
Chairwoman

Attachment

**STATEMENT OF PATRICIA L. ACAMPORA
CHAIRWOMAN
NYS PUBLIC SERVICE COMMISSION**

Introduction

Within the New York State Department of Public Service, the Office of Electricity and Environment has responsibility for steam generators, steam production planning, and steam rates, charges, rules and regulations. The Office of Gas and Water has responsibility for the steam transportation system, and steam safety issues. This includes oversight and investigation of steam system accidents.

The Department's authority regarding facility failure events such as the Consolidated Edison of New York, Inc. steam pipe rupture on July 18, 2007, is granted as part of the New York Compilation of Rules and Regulations of the Public Service Commission (NYCRR).

Title 16 NYCRR Part 420.14 states that steam corporations such as Con Edison shall establish procedures to analyze each failure or incident for the purpose of determining its cause and to minimize the possibility of a recurrence. This shall include a procedure to select samples of the failed facility or equipment for laboratory examination when necessary.

The procedures also provide for complete cooperation with the Department Staff in testing or surveying, including using independent consultants, any equipment or systems deemed necessary by Staff for the investigation and analysis of any failure or accident to determine its cause and to minimize the possibility of a recurrence.

Steam Pipe Explosion Investigation

Staff has commenced an official investigation of the steam pipe rupture. Staff has maintained a constant presence at the failure site since shortly after the incident occurred, and they have closely monitored clean-up, steam service restoration, and evidence retrieval efforts.

Con Edison is required by 16 NYCRR Part 420 to provide telephonic notification of incidents and file a written report within 30 days from the date of the incident. Con Edison did notify Staff of the incident. Con Edison is expected to file a written report within 30 days; at time, it is likely to be preliminary.

Staff has reviewed and continues to review records of Con Edison's operating and maintenance, as well as records of construction activity at or near the failure site. Con Edison has been cooperative and responsive to all Staff's requests for records, documents, and information, and has kept Staff informed as to when important activities at the site will occur.

On-Site Activities Timeline: Week One

The rupture occurred at approximately 5:50 p.m. on Wednesday, July 18. Staff was notified of the incident by Con Edison at approximately 6:20 p.m. that same evening. In the meantime, Staff in New York City had heard news reports of the incident, and a Safety Section field engineer was dispatched to the location and arrived on site at approximately 7:30 p.m. Additional Staff arrived on the scene by 8:00 p.m. Staff began an immediate visual inspection of the site and made some initial damage assessments. It was reported that 24 steam customers lost service as a result of the rupture and subsequent shut-down of the steam main. Staff verified that there was no impact on natural gas facilities or service to customers.

Staff also began to monitor the impact on telecommunications services immediately following the explosion. That evening, Staff received reports from Verizon that it had sustained damage to several high-capacity fiber cables that served customers in office buildings in the surrounding area and also provided vital telecommunications links between Verizon switching offices. Verizon also sustained minor damage to two large copper cables serving individual customers in the area. Inquiries to other telecommunications companies in the area following the explosion indicated that no other carriers were affected.

Staff returned to the site early on Thursday, July 19 to monitor Con Edison's activities. No personnel were allowed into the established "hot zone" (area bounded by 40th to 42nd Streets and Park to 3rd Ave.) without respirators and protective suits due to asbestos contamination. Clean-up of asbestos contamination in the zone was in progress, and would continue over the course of the next two weeks. There was contaminated debris both in and out of buildings as some had sustained broken windows, which would be replaced.

In addition to monitoring Verizon's reporting of outage conditions, Staff attended daily briefings of the NYC OEM on Thursday, July 19 and Friday, July 20 to obtain operational status reports from all responding NYC agencies, Con Edison and Verizon. There, Staff was able to interview Verizon personnel responsible for the restoration of services.

Staff verified that the Con Edison gas facilities in the area were intact and functioning normally. As a precaution, Con Edison cut off the section of gas main nearest the rupture since no customers were served off that section. The company was working to restore steam service to the affected customers except five within the zone. By 9:00 a.m. Friday, July 20, steam service had been restored to all customers outside the zone. Clean-up operations continued.

The steam pipe explosion also caused damage to Con Edison's electric system. Ten primary electric feeders that distribute power in the Grand Central and Beekman networks were damaged and immediately tripped out-of-service. Only a few electric customers in the immediate vicinity of the steam pipe explosion actually lost service. The Grand Central network serves customers in the area around the Grand Central terminal from 5th Avenue to the East River. The Beekman network is the area just to the North of the Grand Central network from 44th to 51st Street.

The New York Independent System Operator, at Con Edison's request, implemented a localized demand response in the affected area to help reduce load. Staff also directed State Agencies in the affected area to reduce load.

Con Edison installed temporary shunts in the streets to allow the primary electric feeders to be returned to service. By the end of Friday, July 20, both networks were operating under normal design conditions. Staff monitored the company's efforts to install shunts on Thursday, Friday, and Saturday.

Con Edison is in the process of making permanent repairs to the primary electric feeders that were damaged, although this work is secondary to the activities associated with the steam pipe explosion investigation. Staff has been making daily visits to the site to monitor electric work activities.

On Saturday, July 21, two Staff engineers witnessed the removal of the tow truck that had fallen into the crater. The Staff engineers were fitted with respirators and protective suits in order to allow access to the zone. Staff was on site in the zone when the truck and large pieces of the collapsed roadway were lifted from the crater. Some utilities were visible, but there was water in the crater and the steam pipe was not visible. The steam pipeline is at a depth of approximately 15 feet.

Over the next several days, cleanup operations continued, including complete wipe down of two high-rise buildings in the area. The "hot zone" was shrunk down to nearer the crater. Limited pedestrian access was allowed in certain areas of the neighborhood for people who live or work there.

On Tuesday, July 24, Con Edison inserted an inspection camera into the steam main from just west of Lexington Ave. toward the rupture. The camera revealed the rupture, but not clearly enough to determine exactly where.

On-Site Activities Timeline: Week Two

On Wednesday, July 25, a steam trap assembly nearest the failure site was cut out to be tested. Traps are for removing condensate from the steam pipelines.

On Friday, July 27, Staff witnessed Con Edison testing of several other steam traps within a two block area of the failure site. Con Edison again inserted an inspection camera into the steam main, this time from the east, toward the rupture. The camera could not determine exactly where the rupture occurred.

By Saturday, July 28, and Sunday, July 29, enough debris had been removed from the crater so that the damaged pipe was at times somewhat visible from outside the crater. On Monday, July 30, the failed pipe was completely exposed and further work was being done to clean debris from the crater, continuing into Tuesday, July 31.

On Wednesday, August 1, Con Edison physically removed the cut off sections of electric cable and gas main that crossed the crater. Con Edison also removed sections of pipe that connect the steam trap, which had been removed on Wednesday, July 25, to the steam main.

On-Site Activities Timeline: Week Three

On Thursday, August 2, Staff observed the cut out and packaging of two sections of steam main. Both removed sections were placed in protective crates and transported to a Con Edison facility in Queens to be decontaminated. Staff accompanied these pipe sections to ensure they made it to the intended destination. A section of steam main was cut out early in the morning of Friday, August 3. A third party consultant — Evidence Secure, Inc. — was retained and is responsible for the proper handling and transport of the specimens. Staff will have input into the detailed engineering protocol that will be developed to specify what and how specimens will be tested. On-site investigations on Friday, August 3, focused on drainage patterns within the intersection for rain run-off, sewer and steam traps.

Once pipe components are removed, work to repair utilities and then the street can commence. Affected utilities that require some level of replacement and/or repair at the location include steam, electric, water, sewer, and telecommunication. Staff will also be on site inspecting reconstruction of the steam pipeline facilities when this work commences and progresses.

The removed pipe sections were first sent to a Con Edison facility in Queens to be decontaminated. Pipe components will then be released for transport to a lab for metallurgical analysis attempting to identify the cause and mode of the failure. A detailed engineering evaluation protocol will be developed in cooperation with Staff before any testing.

The evidence handling protocol states that there will be no destructive testing or examination of any of the components without notice to all interested parties to allow observation and participation by those parties in the testing and examination. Metallurgists who will examine the ruptured pipe will be hired by Con Edison. Staff will work closely with the metallurgists.

Regarding the Department's review of Con Edison records and documentation related to construction and operating and maintenance activities at and near the failure location, records reveal that there has been significant activity at that intersection since April 2004. These records are in the process of being examined.

Although the damage to telecommunications facilities was severe at the explosion site, the impact on customers was mitigated by the fact that most all services were rerouted and restored prior to the return of customers to affected buildings. Where applicable, redundancies built into the network allowed for affected Verizon interoffice facilities and services to quickly be rerouted, in many cases automatically. The most severe customer outage conditions were to data services to businesses carried on nine damaged fiber cables, serving approximately 10 affected buildings. Because of restrictions due to the hazardous conditions present, it took several days for Verizon to access required locations to fully assess damage and to commence full-scale restoration efforts.

However, once Verizon was able to access customer buildings and associated manholes in the affected area they quickly addressed outage conditions. Throughout the restoration effort there were fewer than 100 customer generated trouble conditions reported. Verizon reports that all data services and most all individual voice service outages were restored by Tuesday, July 24.

The prompt restoration of services was accomplished by the permanent bypass of damaged cables (both fiber and copper) at the impact location. Since completing the bulk of its restoration effort in week one, Verizon has remained on site to address remaining individual outage conditions and to protect and replace damaged telecommunications facilities at the rupture site and to assist in the overall infrastructure restoration.

Steam Reliability

The safety of steam distribution systems operated by steam corporations as defined in the NY Public Service Law is covered by the requirements of Title 16 of NYCRR Part 420. These regulations were adopted in February 1991 following the steam pipeline incident that occurred near Gramercy Park in August 1998. The regulations include requirements for periodic inspection of critical components of the steam system at stated intervals. Also included are requirements for categorizing and repair of leaks, and reporting of incidents, unscheduled service interruptions, and response times for reports of steam leaks and emergencies.

Staff's audits and inspections of Con Edison's operations and maintenance have generally found the company to be in compliance with the safety regulations, although some violations of safety code requirements and other issues have been identified over the last five years. In that time period, some instances have been identified where Con Edison exceeded the time limit for periodic inspection of specific system components such as steam traps and expansion joints, although the inspections were performed.

In 2000 and 2001, Staff identified an issue with Con Edison's response times to reports of steam leaks. Although the regulations do not stipulate a specific level of response, Staff felt that an unacceptably high percentage of response times exceeded 60 minutes and recommended that Con Edison take action to improve so that response times greater than 60 minutes occurs no more than 10 percent of the time. The company responded to Staff's concern and took appropriate actions to improve its response times. In 2002 the response times improved and did not exceed 60 minutes more than 10 percent of the time. Since 2003 through June 2007, instances of response greater than 60 minutes have occurred less than 5 percent of the time.

In 2004, Staff identified problems related to Con Edison's classification and repair of leaks. Instances were noted where leaks should have been classified with a higher priority for repair. In response to Staff's findings, Con Edison revised its procedures for classifying steam leaks and vapor conditions. In 2006 no problems related to leak classification and repair were identified by Staff.

As a result of the power blackout that occurred in August 2003, steam service was lost to all customers due to the inability of Con Edison to produce and supply steam to the system in the absence of electric power from the grid. This was an unprecedented event in the history of Con

Edison's steam system operations. At the time, Con Edison had no standardized procedure to accomplish service restoration for all customers after a total system shut-down.

In response to recommendations made in the Department's report on the blackout, Con Edison developed a specific procedure to enable safe and orderly restoration of steam service to all customers in the event of a total system shut down. Also, the company completed modifications to select steam generating plants to enable production of steam in the absence of power from the electric supply grid. This will allow the company to maintain a minimum steam supply pressure and flow rate for winter steam demand to sustain system operations in the event of a total loss of power.

Next Steps

Throughout this investigation, the Department has responded quickly to numerous media requests funneled through our Public Affairs Office for audit and inspection records, periodic reports filed by Con Edison, and general information.

The Commission anticipates receiving a briefing from Staff regarding the Lexington Avenue steam pipe rupture at its August 22 session. It is not anticipated that Staff will be ready to offer findings or conclusions at that time. Final analysis is not expected for a few months.

In the meantime, the Department continues its thorough investigation of the rupture. It will diligently work with Con Edison and other interested parties to ensure that an accurate and complete record of the incident is developed, along with an analysis and a determination of what led up to the occurrence. It will also include recommendations as to how best to prevent such an incident from occurring again.