

BEFORE THE
STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

In the Matter of

Consolidated Edison Company of New York, Inc.

Case 06-G-1332

February 2007

Prepared Testimony of:

SAFETY PANEL

Joseph F. Klesin
Utility Engineer 3 (Safety)

Patrick J. Raichel
Utility Engineer 2 (Safety)

Rachel Jenkins
Utility Engineer 1 (Safety)

Office of Gas & Water
State of New York
Department of Public Service
90 Church Street
New York, New York 10007-2919

- 1 Q. Please state your names and business address.
- 2 A. Joseph Klesin, Patrick Raichel and Rachel
3 Jenkins, 90 Church St., New York City.
- 4 Q. Mr. Klesin, what is your position with the
5 Department of Public Service?
- 6 A. I am a Utility Engineer 3 (Safety) assigned to
7 the Office of Gas & Water, Safety Section in the
8 NYC Office.
- 9 Q. Mr. Klesin, please state your education and
10 experience.
- 11 A. I graduated from New York Institute of
12 Technology (NYIT) in Old Westbury, NY in 1989
13 with a Bachelors of Technology Degree in
14 Electro/Mechanical/Computer Technology. I
15 joined the Department in 1990 and am currently
16 the Supervisor of the Safety Section's NYC
17 office. I have oversight responsibility for
18 four Utility Engineers and implementation
19 responsibility for the New York Pipeline Safety
20 Program in the New York City, Westchester and
21 Long Island areas.
22 I am responsible for organizing, scheduling,

1 coordinating and directing the field activities
2 of the New York City area office. The program
3 involves comprehensive safety & reliability
4 evaluations of downstate utilities and covers
5 all aspects of operations, maintenance and
6 construction of jurisdictional natural gas,
7 liquid petroleum, liquefied natural gas and
8 steam pipelines. I am familiar with all NYS and
9 federal gas & liquid pipeline safety codes,
10 including the overall operations of the major
11 downstate gas utilities.

12 Q. Have you previously testified in a regulatory
13 proceeding?

14 A. Yes, I have testified in two previous rate cases
15 for Orange & Rockland Utilities; Cases 99-G-1695
16 and 02-G-1553 and submitted testimony for the
17 Keyspan Corporation cases; 06-M-0878, 06-G-1185
18 and 06-G-1186.

19 Q. Mr. Raichel, what is your position with the
20 Department of Public Service?

21 A. I am a Utility Engineer 2 (Safety) assigned to
22 the Office of Gas & Water, Safety Section in the

1 NYC Office.

2 Q. Mr. Raichel, please state your education and
3 experience.

4 A. I graduated in June 1991, from the State
5 University of New York at Buffalo, with a
6 Bachelor's of Science degree in Mechanical
7 Engineering. I have been employed by the
8 Department of Public Service since December of
9 1995. From March 1994 to December 1995 I worked
10 for the New York State Insurance Fund as a Risk
11 Management Representative.

12 I am responsible for the investigation and
13 analysis of gas pipeline utility facilities,
14 company standard practices and records related
15 to system design, construction, operation and
16 maintenance. My duties also include assuring
17 compliance with the federal and state pipeline
18 safety regulations that apply to gas utilities
19 and pipeline operators. Investigation of
20 complaints from utility customers and the public
21 regarding pipeline safety, service issues, and
22 facilitation of the resolution between the

1 utilities and complainants, are also part of my
2 responsibilities. Also included in my duties is
3 the preparation of detailed reports related to
4 my investigations, analysis, audit findings and
5 recommendations. Another one of my roles is to
6 investigate natural gas, steam and carbon
7 monoxide related incidents, and outages for
8 determination of involvement of company
9 facilities. The purpose of the investigations
10 is to ensure compliance with the pipeline safety
11 regulations and recommend preventive measures to
12 eliminate or mitigate reoccurrence. I have also
13 participated in rotation programs within the
14 Department which has given me to opportunity to
15 work on water and gas rate matters.

16 Q. Have you previously testified in a regulatory
17 proceeding?

18 A. Yes, I have previously testified in the last
19 Consolidated Edison of New York, Inc. gas rate
20 case 03-G-1671.

21 Q. Ms. Jenkins, what is your position with the
22 Department of Public Service?

1 A. I am a Utility Engineer 1 (Safety) assigned to
2 the Office of Gas & Water, Safety Section in the
3 NYC Office.

4 Q. Ms. Jenkins, please state your education and
5 experience.

6 A. I graduated from The Ohio State University with
7 a Bachelor of Engineering in Civil Engineering
8 in 2003. I joined the Department of Public
9 Service in 2004.

10 I am responsible for the investigation and
11 analysis of gas pipeline utility facilities,
12 company standard practices and records related
13 to system design, construction, operation and
14 maintenance. My duties also include assuring
15 compliance with the federal and state pipeline
16 safety regulations that apply to gas utilities
17 and pipeline operators. Investigation of
18 complaints from utility customers and the public
19 regarding pipeline safety and service issues,
20 and the facilitation of the resolution between
21 the utilities and complainants are also part of
22 my responsibilities. Also included in my duties

1 is the preparation of detailed reports related
2 to my investigations, analyses, audit findings
3 and recommendations. Another one of my roles is
4 to investigate natural gas, steam, carbon
5 monoxide related incidents, and outages for
6 violation of the pipeline safety regulations,
7 and recommend preventive measures to eliminate
8 or mitigate reoccurrence. I have also
9 participated in rotation programs within the
10 Department which has given me to opportunity to
11 work on water and gas rate matters.

12 Q. Have you previously testified in a regulatory
13 proceeding?

14 A. Yes, I have previously testified in the United
15 Water New York rate case, 06-W-0131.

16 Q. What is the purpose of the Safety Panel's
17 testimony in this case?

18 A. The purpose of our testimony is to recommend
19 safety performance targets as incentives for Con
20 Edison to maintain and improve specific areas
21 regarding the safety of its gas distribution
22 system. They also focus the Company's attention

1 to areas widely accepted as of high importance,
2 and help ensure service reliability. The
3 targets are derived from the Company's actual
4 levels of historic performance, our knowledge of
5 Con Edison, and our experience with other local
6 distribution companies across the state.

7 Q. Do you agree with Mr. Ciminiello's proposal, as
8 stated on page 32, lines 10 through 18 of his
9 testimony, to terminate the safety incentive
10 mechanisms related to leak management and
11 emergency response times currently in place?

12 A. No. The purpose of these incentive mechanisms
13 is to encourage the company to meet leak
14 management and emergency response time safety
15 performance measures. We believe that these
16 standards remain valid and are a worthwhile
17 goal. Past performance by Con Edison has shown
18 that it is capable of meeting these standards.
19 Con Edison will incur regulatory liabilities
20 only if it fails to maintain its current
21 standards of performance in these areas of
22 safety.

- 1 Q. What does the Safety Panel recommend in the area
2 of safety performance measures?
- 3 A. We recommend, at a minimum, maintaining Con
4 Edison's current emergency response time
5 incentive mechanisms. We also recommend a
6 decrease in the company's backlog of outstanding
7 leaks at the end of the calendar year, targets
8 relating to preventing damage to its
9 distribution system, and an additional measure
10 calling for infrastructure enhancement with
11 respect to increases in the replacement footage
12 of leak prone distribution pipe.
- 13 Q. Do you have specific recommended rate
14 adjustments that will be assessed for failure to
15 meet the proposed safety performance measures?
- 16 A. Yes. We recommend the following adjustments to
17 be assessed in the corresponding rate year
18 derived from the approximate after-tax basis
19 point value of \$120,000, as indicated by each
20 measure.
- 21 Q. Please describe the Leak Management incentive.
- 22 A. The panel recommends that Con Edison be required

1 to maintain the following leak management
2 targets:

3 **(1) Leak Management**

4 a) Maintain a year-end backlog of total
5 leaks less than or equal to 1,500
6 leaks.

7 b) Maintain a year-end backlog of
8 workable leaks less than or equal to
9 80 leaks. A workable leak poses a
10 hazard to the public and must be
11 repaired within a specified time
12 period under New York pipeline safety
13 regulations.

14 Failure to comply with a) or (b) will result in
15 an annual downward adjustment of \$600,000 to
16 revenue or an approximate after-tax adjustment
17 to revenue of 5 basis points. Failure to comply
18 with both a) and b) will result in an annual
19 downward adjustment of \$1,200,000 to revenue or
20 an approximate after-tax adjustment to revenue
21 of 10 basis points.

- 1 Q. Would you please discuss the purpose of the
2 enhanced leak management performance measure?
- 3 A. The overall objective of the leak management
4 performance measure is to gauge the Company's
5 performance in managing the number of leaks on
6 its system. Minimizing the number of leaks
7 helps reduce the potential for hazardous
8 incidents involving natural gas. A year end
9 tally of leak numbers will gauge the Company's
10 year round efforts and minimize the hazards to
11 the public during frost conditions, when there
12 is a higher risk of gas migration into homes
13 because the gas cannot vent to atmosphere as
14 readily. Therefore, this measure provides an
15 incentive for the Company to eliminate leaks and
16 thereby provide a higher level of safety to the
17 public.
- 18 Q. How did you determine the number of allowable
19 leaks?
- 20 A. We reviewed data provided by the company for
21 calendar years 2005 and 2006. The year-end
22 backlog of total leaks were 1,602 leaks and

1 1,512 leaks, for 2005 and 2006, respectively.
2 Con Edison also had annual year-end workable
3 backlogs of 91 and 61 leaks, for 2005 and 2006,
4 respectively. We believe that our proposed
5 goals of 1,500 for total leaks and 80 for
6 workable leaks, are well within the company's
7 reach.

8

9 **(2) Emergency Response**

10 Consistent with statewide standards for
11 Emergency Response, Staff recommends the
12 following performance measures for Con Edison:

13 a) Respond to 95% of all gas leak and odor
14 calls within 45 minutes.

15 b) Respond to 75% of all gas leak and odor
16 calls within 30 minutes.

17 Failure to comply with (a) or (b) will result in
18 an annual downward adjustment to revenue of
19 \$1,000,000 or an approximate annual after-tax
20 adjustment to revenue of 9 basis points.

21 Failure to comply with both (a) and (b) will
22 result in an annual downward adjustment to

1 revenue of \$2,000,000 or an annual after-tax
2 adjustment to revenue of approximately 18 basis
3 points.

4 Q. Please describe the Emergency Response
5 performance measures?

6 A. These measures evaluate company response to gas
7 leak, odor and emergency calls generated by the
8 public and non-company personnel. Each company
9 is required by gas safety regulations to provide
10 a monthly report of the total number of calls
11 received and responded to in intervals of 15
12 minutes during normal business hours, weekdays
13 outside of business hours, and weekends and
14 holidays. This measure, in addition to the leak
15 management and damage prevention measures, is
16 included in the Safety Section's annual
17 Performance Measures Report to the Commission,
18 titled *Case 06-G-0566, Gas Safety Performance*
19 *Measures Report, issued June 1, 2006*. Statewide
20 standards for this performance measure have been
21 jointly established by Staff and utilities as
22 follows:

- 1 a) Respond to 75% of all gas leak and
2 odor calls within 30 minutes;
3 b) Respond to 90% of all gas leak and
4 odor calls within 45 minutes; and
5 c) Respond to 95% of all gas leak and
6 odor calls within 60 minutes.

7 Q. Why are you not recommending a target for the 60
8 minute response time?

9 A. First, Con Edison has historically been above
10 the 60 minute target. Second, we believe that
11 as the company works towards meeting the 30
12 minute and 45 minute targets, the likelihood of
13 not achieving the 60 minute targets for all
14 responses lessens.

15 Q. How did the panel determine the allowable
16 response times?

17 A. These levels of response times are based upon
18 company performance the last two years. In
19 2005, Con Edison responded to 76.4% of their gas
20 leak and odor calls within 30 minutes. In 2006,
21 that percentage rose to 78% of all gas leak and
22 odor calls. For the 45 minute response goal,

1 Con Edison responded to 97.1% and 97.6% for 2005
2 and 2006, respectively. Since the company is
3 currently exceeding the targets, our
4 recommendation of the accepted statewide targets
5 simply encourages it to avoid possible
6 deterioration in performance.

7 Q. How will the response measures increase public
8 safety?

9 A. Leaks on inside piping, improperly operated or
10 installed appliances, and gas migration into a
11 building from leaks on outside buried piping
12 present a risk to the general public. The
13 company dispatches calls reporting gas leaks or
14 odors on a priority basis. The potential for an
15 incident and physical harm to the general public
16 increases as the company's response time
17 lengthens. Therefore, it is important to
18 minimize the response times to calls of gas odor
19 and/or gas leaks.

20 **(3) Prevention of Excavation Damage**

21 a) Maintain a level of less than or equal
22 to 0.65 damages per 1,000 One-Call

1 Tickets (annually) for damages caused
2 by incorrect marking of company
3 facilities.

4 b) Maintain a level of less than or equal
5 to 0.28 damages per 1,000 One-Call
6 Tickets (annually) for damages due to
7 excavation by company personnel or
8 outside contractors in the company's
9 employment.

10 c) Maintain a level of less than or equal
11 to 2.75 total damages per 1,000 One-
12 Call Tickets (annually).

13 Failure to comply with (a) or (b) will result in
14 an annual downward adjustment of \$600,000 to
15 revenue or an approximate annual after-tax
16 adjustment to revenue of 5 basis points.

17 Failure to comply with both a) and b) will
18 result in an annual downward adjustment of
19 \$1,200,000 to revenue or an approximate annual
20 after-tax adjustment to revenue of 10 basis
21 points. Failure to comply with c) will result
22 in an annual downward adjustment to revenue of

1 \$200,000 or an approximate annual after-tax
2 adjustment to revenue of 2 basis points.

3 Q. What is a "One-Call Ticket?"

4 A. The Public Service Commission's regulations
5 contained in 16 NYCRR Part 753 - Protection of
6 Underground Facilities - require excavators to
7 make a toll-free call to a "one-call"
8 notification system and provide notice of their
9 intent to perform excavation work. The one-call
10 notification system that covers Con Edison's
11 territory is the New York City and Long Island
12 One Call Center (Dig Safely). Dig Safely takes
13 the pertinent information from the excavator and
14 transmits it to its member utilities that may be
15 affected by the excavation work. Those
16 utilities then mark the location of their
17 affected facilities so the excavator can avoid
18 damaging them. Each incoming call to Dig Safely
19 will generate several outgoing notices to the
20 member utilities such as the gas, electric,
21 telephone, cable, and water companies. A notice

1 received by the utility is referred to as a One-
2 Call ticket.

3 Q. Please describe the performance measures
4 regarding the prevention of excavation damage.

5 A. As an operator of a natural gas distribution
6 system, Con Edison participates in the local
7 One-Call damage prevention system in an effort
8 to minimize the instances of damage inflicted on
9 their pipes by excavation activities. In order
10 to comply with 16 NYCRR 753, Con Edison must
11 respond to all requests for mark outs by
12 excavators, physically locate their pipes and
13 mark out the locations on the ground. This
14 performance measure will gauge how well these
15 mark outs are conducted.

16 Q. How does the performance measure take company
17 excavators into account?

18 A. Con Edison, by the nature of its work, also
19 conducts its own excavations. At these sites,
20 Con Edison is not required to mark out its own
21 underground facilities, because there are maps
22 and field sketches readily available to the

1 company excavator that identify the location of
2 the company facilities. Even with these
3 resources available, there are instances where
4 Con Edison still manages to damage its own
5 facilities.

6 Q. Are damages due to excavation a big concern in
7 Con Edison's service territory?

8 A. Yes. According to both New York State and
9 National statistics, the leading cause of
10 pipeline failures and incidents is damage by
11 excavation activities. Marking of facilities
12 and company sponsored excavation are two areas
13 where Con Edison has the greatest control.
14 Therefore, Con Edison should concentrate its
15 efforts in these areas where it can have the
16 most direct impact, and not rely on influencing
17 the actions of others.

18 Q. How did the panel derive the targets for the
19 damage measures?

20 A. The panel examined Con Edison's actual
21 performance for 2004, 2005 and 2006, and chose a
22 reasonable performance level based on the data.

1 For incorrect marking of company facilities, Con
2 Edison experienced 0.53, 0.74 and 0.57 damages
3 per 1000 One-Call Tickets in 2004, 2005 and
4 2006, respectively. Our proposed target of 0.61
5 is an average of those performance levels,
6 encouraging Con Edison to provide a level of
7 safety to the public that is not less than it
8 has historically experienced.

9 We used the same methodology for the damages due
10 to excavation by company personnel and outside
11 contractors, and total damages. The company
12 experienced 0.41, 0.32 and 0.24 damages due to
13 excavation by company personnel or outside
14 contractors in 2004, 2005 and 2006,
15 respectively; and 3.25, 3.09 and 2.37 total
16 damages during the same years. Our targets of
17 0.20 and 2.25 are based on historical
18 performance levels trending, encouraging Con
19 Edison to continue improving the level of safety
20 to the public no less that it has historically
21 experienced.

22 Q. Is it correct that damages due to incorrect

- 1 marking of company facilities and company and
2 company contractor damages are within the
3 control of the company?
- 4 A. Yes.
- 5 Q. How about overall damages?
- 6 A. Damages caused by excavator failure to notify
7 Dig Safely and/or unsafe excavation practices
8 are not totally within the control of the
9 company. However, the companies can minimize
10 these damages by influencing excavator activity
11 through education and outreach efforts to
12 excavators, by continuing to bill excavators for
13 repair costs when the excavator is at fault, and
14 by referring problem contractors to Department
15 of Public Service Staff for possible enforcement
16 activities.
- 17 Q. Do the recommended targets for overall damages
18 per 1000 One-Call tickets include the mismatch
19 and company and company contractor components?
- 20 A. Yes.
- 21 Q. Why do you recommend that approach?

1 A. Even if it appears that the targets for mismark
2 and/or company and company contractor damages
3 will be exceeded, the companies will have an
4 incentive to keep these figures as low as
5 possible because they would still be
6 contributing to the overall damages measure.

7

8

9 **(4) Infrastructure Enhancement**

10 Staff recommends setting an annual replacement
11 goal of 40 miles of leak-prone pipe. The 40
12 miles of pipe should include at least 10 miles
13 of small diameter cast iron main.

14 Failure to meet this goal will result in a
15 annual downward adjustment to revenue of
16 \$1,200,000 or an approximate annual after-tax
17 adjustment to revenue of 10 basis points.

18 Q. What is the basis for the infrastructure
19 enhancement measure?

20 A. Staff agrees with Mr. Ciminiello's testimony on
21 page 22, lines 13 through 24, and page 23, lines
22 1 through 3, regarding the reasons to target

1 small diameter cast iron mains for replacement.
2 Historical leak totals and main inventory
3 mileages reviewed by Staff have shown that Con
4 Edison should also be targeting bare steel or
5 other leak prone pipe, such as early vintage
6 plastic, for replacement.
7 This review by Staff has also shown that Con
8 Edison is capable of maintaining these levels of
9 pipe replacement. In 2003, Con Edison replaced
10 33 miles of bare steel pipe, along with 12 miles
11 of cast iron pipe. In 2004, these numbers were
12 28 miles and 11 miles respectively. In 2005,
13 Con Edison maintained their rate of replacement
14 for cast iron pipe, but declined significantly
15 for bare steel pipe. Con Edison replaced only 7
16 miles of bare steel pipe in 2005, along with 12
17 miles of cast iron pipe in the same year. The
18 difference can be directly attributed to a
19 mandated replacement program for bare steel that
20 was present for the years 2003 and 2004, but not
21 present in 2005. The panel is again
22 recommending a pipe replacement level to ensure

1 Con Edison proactively addresses its leak prone
2 pipe.

3 Q Please describe the leak-prone pipe replacement
4 component of the safety performance measure.

5 A. The initial premise of our recommendation is
6 that Con Edison continues to replace this type
7 of pipe at a rate not less than their historical
8 capability. However, because of the
9 susceptibility of failure associated with small
10 diameter cast iron and the leakage rate that Con
11 Edison has experienced on its distribution
12 system, we are recommending an increase to Con
13 Edison's proposed replacement level, as well as
14 expansion of targeted main material.

15 Q. Please explain what you mean by "leak-prone"
16 pipe.

17 A. Leak-prone pipe is generally considered steel
18 pipe that is unprotected, cast iron pipe, and
19 some vintages of plastic pipe that can become
20 brittle.

21 Q. What is meant by "unprotected?"

22 A. It means that the pipe lacks cathodic

1 protection, a method by which steel pipelines
2 are protected from corrosion. Such unprotected
3 pipe is also referred to as "bare" steel. For
4 our purposes here, bare steel pipe also includes
5 pipe that is ineffectively coated.

6 Q. How does the bare steel component of the
7 recommended safety measure add to the safety of
8 the gas system?

9 A. Corrosion is a leading cause of leakage and bare
10 steel pipe is the most susceptible to corrosion.

11 Q. How does the removal of cast iron pipe add to
12 the safety of the gas system?

13 A. Due to its physical characteristics, cast iron
14 pipe is more prone to catastrophic failures than
15 cathodically protected steel pipe and plastic
16 pipe. Small diameter cast iron pipe, defined as
17 8-inches or less in nominal diameter, is even
18 more prone to structural failure, due to
19 brittleness and low beam strength. Removal of
20 this pipe will reduce the potential for leaks
21 and incidents resulting from failures. Cast
22 iron pipe tends to be located in older, more

1 densely populated areas with many enclosed
2 structures and paved areas. These circumstances
3 tend to be more conducive to the below-ground
4 migration of gas across wider areas than would
5 occur in rural areas. The more congested the
6 environment the greater the risk of fires or
7 explosions. The removal of these leak-prone
8 facilities will also benefit the company and
9 improve public safety by reducing leak backlogs.

10 Q. What criteria should be used for the removal of
11 leak-prone pipe?

12 A. We recommend Con Edison implement a method to
13 evaluate piping segments based on criteria such
14 as type of material, cathodic protection,
15 leakage information, and location of pipe in
16 relation to structures where gas could gather if
17 leakage occurs. It should then rank risk,
18 reliability, and economic factors and prioritize
19 segments for replacement. The assigned priority
20 levels should guide Con Edison to remove its
21 highest-risk pipe and thereby improve the
22 overall safety of the system through lower leak

1 rates.

2 Q. Please explain the basis for your proposed leak
3 management, emergency response time, excavation
4 damage and leak prone pipe replacement annual
5 non-compliance revenue adjustments.

6 A. We revisited Con Edison's current gas safety
7 operations non-compliance revenue adjustment
8 levels and determined that they are too low to
9 be considered sufficient for Con Edison to
10 maintain an adequate focus on gas safety and
11 reliability, especially for a company the size
12 of Con Edison.

13 Q. Are there any additional recommendations
14 regarding the aforementioned performance
15 measures?

16 A. Yes. The Safety Panel recommends that Con
17 Edison be required to implement the
18 aforementioned safety recommendations and
19 performance measures for calendar year 2008 and
20 remain at the 2008 target levels for each
21 subsequent year until the mechanisms recommended
22 in this proceeding are superseded in the future

1 by the Commission.

2 Q. Are there any other conditions that the
3 companies should meet pertaining to your safety-
4 related recommendations?

5 A. Yes, the Panel requests that Con Edison submit a
6 report to the Director of the Office of Gas and
7 Water on its performance in the areas of the
8 recommended targets in this testimony within 30
9 days following the end of the calendar year. In
10 addition, all targets and the application of
11 revenue adjustments for targets that are not met
12 should continue on a year-to-year basis until
13 changed by the Commission.

14 Q. Does this conclude your panel testimony at this
15 time?

16 A. Yes.