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N.H.P.U.C. Case No.	DG 11-196
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Witness	Panel 2
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NORTHERN UTILITIES, INC.

**DIRECT TESTIMONY OF  
PHILIP SHER**

**New Hampshire Public Utilities Commission**

**Docket No. DG 11-196**

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1 **I. INTRODUCTION**

2 **Q. Please state your name and business address.**

3 A. My name is Phillip Sher. My business address is 1204 Long Hill Road, Cheshire,  
4 CT 06410.

5

6 **Q. By whom are you employed and in what capacity?**

7 A. I am an independent pipeline consultant and operate my own business – Philip  
8 Sher Pipeline Consultant. I have been engaged by Unitil Corporation and  
9 Northern Utilities, Inc. to provide expert opinion in the area of emergency  
10 response to reports of gas odors by a gas distribution company.

11

12 **Q. Please summarize your professional and educational background.**

13 A. I have over 37 years in the field of gas pipeline safety. That experience includes  
14 34 years as the head of the State of Connecticut, Department of Public Utility  
15 Control, Gas Pipeline Safety Unit. My duties with the Gas Pipeline Safety Unit  
16 are similar to those of the pipeline safety staff of the New Hampshire Commission.

17

18 During those years, I have been extensively involved in the major issues affecting  
19 gas pipeline safety. Part of my involvement has been in the form of:

20 (a) Z380 Gas Piping Technology Committee (1975 - present, 2<sup>nd</sup> Vice  
21 Chairman 1989 – present) – which publishes a set of guidelines providing  
22 how-to information for complying with the Minimum Federal Safety

1 Standards for Natural and Other Gas (49 CFR 192), petitions the United  
2 States Department of Transportation Office of Pipeline Safety (OPS) for  
3 changes in the regulations and comments on OPS Notices of Proposed  
4 Rulemaking;

- 5 (b) National Association of Pipeline Safety Representatives (NAPSR)  
6 (founding member 1982, NAPSR National Chairperson (2006 - 2007),  
7 NAPSR National Vice Chairman (2005 - 2006), NAPSR National  
8 Secretary (2004-2005), NAPSR Board of Directors (2003 – 2008),  
9 Chairman NAPSR Eastern Region (2004 - 2005) and Vice Chairman  
10 NAPSR Eastern Region (2003 – 2004));

11 (c) Integrity Management Activities

- 12 (1) Chairman NAPSR Integrity Management Program Committee  
13 (2003 – 2007)

- 14 (2) Chairman Risk Control Practices Group of the US Department of  
15 Transportation Office of Pipeline Safety (OPS) “Assuring the  
16 Integrity of Gas Distribution Pipeline Systems” (DIMP) effort.  
17 (2005 – 2006)

- 18 (3) Member NAPSR Distribution Integrity Government-Industry Team  
19 (2003 – 2005)

- 20 (4) Member of the GPTC DI guidance TG (2006 - 2008) developing  
21 guidelines for the Distribution integrity management federal safety  
22 standards;

1 (d) Member of the National Association of Regulatory Utility Commissioners

2 (NARUC) Staff Committee on Pipeline Safety (1986 - 2009);

3 (e) Instructor at the New England Pipeline Safety Representatives/US

4 Department of Transportation's Transportation Safety Institute Pipeline

5 Safety Seminar (1995 - 2008); and

6 (f) Instructor at the Northeast Gas Association Gas Operations School (1978 –

7 2011) on pipeline safety regulations.

8

9 My detailed CV is attached.

10

11 **Q. Have you previously testified before this Commission or other regulatory**  
12 **agencies?**

13 A. I have not previously testified before this Commission. I have, on occasion,  
14 testified before the Connecticut Department of Public Utility Control and before  
15 National Transportation Safety Board hearings, as well as in several litigation  
16 cases.

17

18 **II. SUMMARY OF TESTIMONY**

19 **Q. What is the purpose of your testimony?**

20 A. My testimony will describe the emergency response issue as it is contained in the  
21 Commission's Order approving the settlement agreement; provide background  
22 information on the factors affecting leak response, generally describe the actions

1 of Unutil to attempt to meet the targets in the settlement, review the results of the  
2 Unutil's actions, and recommend a resolution to this important safety issue.

3

4 **III. OVERVIEW OF THE ISSUES**

5 **Q. Can you provide a general overview of the issues as you see them?**

6 A. Issues involving public safety are important matters that need to be carefully  
7 viewed and considered. These issues come to the fore when dealing with gas  
8 pipeline systems, and, in this case, emergency response. While the ultimate  
9 desired result is no gas leakage (and therefore no leaks to respond to), no incidents,  
10 no injuries, no fatalities and no property damage, these are the ideals that are  
11 desired, but are not attainable in the real world.

12

13 Delayed leak response may lead to undesired consequences, such as explosions,  
14 fire, deaths, injuries and property damage. The sooner a competent, qualified gas  
15 person arrives at the scene of a possible gas leak, the greater the capability to  
16 prevent untoward events. The ultimate in leak response would be to assign gas  
17 company employees to every street where there is gas service on a 24/7 basis.  
18 Clearly, this is not a realistic option.

19

20 **Q. Is response time the only factor to consider when evaluating the effectiveness**  
21 **of a company's emergency response procedures?**

1 A. No. Another factor with respect to the safety involved in emergency response are  
2 the questions asked of the caller used to evaluate the nature of the emergency  
3 being reported, and providing instructions to the caller to minimize the possibility  
4 of an incident, such as evacuating the premises if the odor is strong, not creating  
5 sparks, etc. Unitil has taken extra care to be diligent to advise customers,  
6 particularly at times when it has historically taken longer for emergency response  
7 than the targets. In addition, the effectiveness of the emergency responder is as  
8 important as the timeliness of the response in terms of training, equipment and  
9 decision-making on the scene.

10

11 **Q. How should regulators prioritize emergency response within the larger**  
12 **context of gas pipeline safety?**

13 A. The only real option is to attempt to assess the risks involved in the various  
14 activities of a gas distribution company, including leak response, and take  
15 reasonable and prudent steps to manage those risks. Risk evaluation is now  
16 required by the new Distribution Integrity Management regulations adopted by the  
17 US Department of Transportation Office of Pipeline Safety. They require all gas  
18 distribution operators such as Unitil to “develop and implement an integrity  
19 management program that includes a written integrity management plan” (49 CFR  
20 §192.1005). The distribution operators are required to “[I]dentify and implement  
21 measures to address risks. Determine and implement measures designed to reduce  
22 the risks from failure of its gas distribution pipeline...” (49 CFR §192.1007(d)).

23

1 Risk is the product of the likelihood of an event (threat) occurring times the  
2 consequence of that threat.

3 
$$\text{Risk} = \text{Likelihood} * \text{Consequence}$$

4 In dealing with risk assessment and prioritization of a gas distribution company,  
5 the difficulty comes from the fact that the likelihood of a threat and the  
6 consequence of that threat are not able to be precisely quantified. Instead, an  
7 evaluation of relative risk is the best available technique. Therefore, it is not  
8 possible to determine the risks with great precision. They may only be determined  
9 based upon whatever limited data exist, and evaluated based upon the knowledge  
10 and experience of experts in the field of gas operations. The result is one that  
11 seems to be reasonably derived based on the limited data and knowledge of  
12 distribution systems – there is no exact answer. It is important that one does not  
13 try to ascribe a higher level of numerical accuracy that the system justifies. If the  
14 best estimate is  $\pm 10\%$ , we should not impute accuracy beyond this level.

15

16 **Q. How is cost evaluated in the context of emergency response and pipeline**  
17 **safety when public safety is involved?**

18 A. Gas distribution companies operate with limited resources – the resources to  
19 perform all desired activities are not usually available, and ratepayers are usually  
20 unwilling to bear the cost of programs beyond those they are convinced are  
21 absolutely needed. Therefore, choices have to be made in the allocation of those  
22 limited resources that are available to the gas distribution company through rates  
23 paid by gas customers. This represents a major challenge to gas distribution

1 companies and regulators alike – to find the “right” balance between safety  
2 benefits and costs.

3

4 In dealing with leak response targets, the risk assessment must be compared to  
5 allocating resources to other activities, including pipe replacement programs that  
6 will minimize leakage in the first place. Also, it must be recognized that there is  
7 no measureable difference in the level of safety that results from responding within  
8 a given time period 96% of the time versus 97% of the time as the quantification  
9 of risk is imprecise. While the higher percent is clearly better, there is no  
10 measureable difference in the overall level of safety. While safety professionals –  
11 both company and regulators – may want more and more safety, the pragmatic  
12 issue of cost-benefit ultimately must be considered. A balance must be reached  
13 based on a clear understanding of the issues.

14

15 **IV. SETTLEMENT CONDITIONS AS RELATES TO EMERGENCY**  
16 **RESPONSE TARGETS**

17 **Q. Are you familiar with the Order Approving Settlement Agreement Order No.**  
18 **24,906, October 10, 2008 as relates to Emergency Response targets?**

19 **A. Yes.**

20

21 **Q. What were the terms of the settlement as relates to Emergency Response**  
22 **targets?**

1 A. Section 6.6 reads as follows:

2 “Emergency Response Standards: Northern will meet the following emergency  
3 response time standards for leak and odor calls received from non-Unitil  
4 personnel.”

5

6 It then proceeds to set the standards:

Normal hours	30 minutes	82%
After hours	30 minutes	80%
Weekends and Holidays	30 minutes	76%
Normal hours	45 minutes	90%
After hours	45 minutes	86%
Weekends and Holidays	45 minutes	84%
Normal hours	60 minutes	97%
After hours	60 minutes	95%
Weekends and Holidays	60 minutes	94%

7

Table 1

8

9 It also calls for “a monthly report format that would provide information regarding  
10 emergency response time.”

11

12 **Q. Is Section 6.6 clear as to the requirements being imposed by the order?**

13 A. No. While it sets targets, it does not define the time period for which the targets  
14 are set. It does not define them as annual targets, nor quarterly nor monthly  
15 targets. It gives no time frame. In addition, it sets no effective date for Company  
16 to achieve compliance. Given that Northern was not in compliance with the  
17 standards before the change in ownership, it follows that the new operator would  
18 need time to implement operational changes to attempt to achieve compliance.

1

2 Q. **By requiring monthly filings, does it imply that the targets are monthly**  
3 **targets?**

4 A. Not at all. The time frame is undefined. The requirement for monthly filings  
5 could be simply to allow staff to review the status on an on-going basis, rather than  
6 wait a longer period of time, such as a year, to see the on-going performance.

7

8 Q. **Is there any technical basis for the leak response targets in the settlement?**

9 A. The settlement does not identify any technical basis for the targets, nor does it  
10 relate those targets to any particular perceived level of safety. Subsequently, the  
11 justification appears to be Staff's evaluation of the ease of meeting the targets and  
12 the "footprint" of the Unitil operations (see discussion under Factors Affect  
13 Emergency Response).

14

15 Q. **Are there any standards for leak response?**

16 A. The Minimum Federal Safety Standards for Natural and Other Gas (49 CFR 192)  
17 are adopted by the State of New Hampshire in (PART Puc 506 Equipment And  
18 Facilities Puc 506.01 Pipeline Safety Standards). The specific regulation dealing  
19 with leak response is:

20

21 49 CFR §192.615 Emergency plans.

1 (a) Each operator shall establish written procedures to minimize the hazard  
2 resulting from a gas pipeline emergency. At a minimum, the procedures  
3 must provide for the following: ...

4 (3) **Prompt and effective response to** a notice of each type of  
5 emergency, including the following:

6 (i) **Gas detected inside or near a building.**

7 (ii) Fire located near or directly involving a pipeline facility.

8 (iii) Explosion occurring near or directly involving a pipeline  
9 facility.

10 (iv) Natural disaster. (emphasis added)

11

12 Guide Material for 49 CFR §192.615<sup>1</sup>

13 1.3 **Prompt and effective response** to each type of emergency. ...

14 (a) Emergencies involving **gas detected in or near buildings should be**  
15 **prioritized in order to have sufficient personnel for**  
16 **response**...(emphasis added)

17 Neither the federal/state regulation nor the Guideline quantifies “prompt and  
18 effective.” Therefore, there is no specific standard.

19

## 20 V. FACTORS THAT AFFECT EMERGENCY RESPONSE

---

<sup>1</sup> Guide for Gas Transmission and Distribution Piping Systems, January 2009 Edition

1 **Q. What are the important factors that affect the ability of a gas distribution**  
2 **company to respond quickly to reports of gas odors?**

3 A. There are a variety of factors that affect the ability to respond the emergency calls.

4 They include:

5 i. Time to receive and process the initial call

6 ii. Time to locate a person to respond

7 iii. Number of personnel available to respond

8 iv. Time to clear the current job

9 v. Location of personnel who will respond

10 vi. Travel time for the responder to leave their current location and  
11 arrive at the scene

12 vii. Cost

13

14 **Q. Can you review those factors as relates to this case?**

15 A. Yes. Factors i through iv are factors within the control of the management of  
16 Unitil. All indications are that Unitil is adequately managing its personnel to  
17 address these four factors. Unitil has the capability to quickly identify where its  
18 personnel are for the purpose of assigning the closest response person. Unitil  
19 policy is to simply make safe at any existing non-emergency job in progress and  
20 respond to new leak call minimizing the time to clear existing jobs. As noted  
21 below, Unitil has continually adjusted their work force to address the emergency  
22 response needs. The time to dispatch a responder improved significantly after  
23 2009.

1

2 With respect to the number of personnel assigned, the more people on a shift, the  
3 greater the diversity and flexibility of response. For example, if there are 10  
4 people working when a need for emergency response occurs, there are a variety of  
5 people who could respond, so the chances of having a person near the call location  
6 and available quickly, is greater than if there were only 1 or 2 people available.

7 Also, with more people on duty working on the gas system, there is more  
8 likelihood of a diversity of location from which to respond. During non-regular  
9 hours, there are fewer people available, thereby increasing the possibility that the  
10 person available may have a longer distance to travel. Further, if more than one  
11 emergency response call occurs during the same period, the second call may have  
12 to be responded by someone who is a greater distance away.

13

14 Travel time is the key variable over which the company has the least control.

15 These become critical after hours when there are fewer people available, and  
16 Weekends/Holidays when responders typically respond from their home (other  
17 than the new Saturday shift). In addition to the normal issues related to travel  
18 time, the tight standards do not allow for frequent winter storms, and the frequent  
19 traffic congestion due to the amount of travel on key routes during vacation and  
20 weekend periods.

21

22 One of the charms of a state like New Hampshire is its rural nature, meaning that  
23 people tend not to be concentrated in cities but spread throughout the area. This

1 low density makes effective leak response more difficult. When customers are  
2 concentrated in smaller geographic areas (higher population density),  
3 concentration of resources in a limited area allows for quicker emergency  
4 response. This is the “foot print” within which Unitil has to perform. Although  
5 the targets “were based on the Safety Division's careful assessment of the pipeline  
6 footprint for the Company,” it seems as if the footprint analysis may have been  
7 less rigorous than necessary to fully determine the ability of Unitil to meet the  
8 targets.<sup>2</sup>

9  
10 An additional factor is the availability of high speed arteries for responding to odor  
11 calls. For example, responding to Main Street, Rochester from Unitil’s  
12 Portsmouth facility appears to be 20 minutes (according to Google Maps). Given  
13 the need to receive and process the call and dispatch a person, there is great  
14 difficulty in meeting the targets. If there are traffic woes, the 30 minute response  
15 becomes impossible.

16  
17 Therefore, the vagary of the leak call location compared to the location of the  
18 potential emergency responders is a key variable over which Unitil has very  
19 limited control. The routes that must be travelled may be high speed interstates or  
20 slower traffic arteries. The amount of traffic encountered can vary greatly due to  
21 weather and other factors.

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<sup>2</sup> DG 11-196, Prehearing conference transcript, 10-04-11, p. 20

1

2 The factors can combine to cause a response to be delayed in spite of good  
3 management and a desire to meet the standards. Expectations that a response will  
4 be timely if there is only 1 leak odor call at a time fail to recognize all the elements  
5 involved. As discussed below, a way to effectively address these types of  
6 concerns is to require an explanation for any response in excess of 60 minutes.

7

8 In spite of efficient management oversight, the ultimate factor affecting response  
9 times is cost. As stated above, response time can be dramatically reduced by  
10 massive increases in staffing. However, the costs will ultimately be borne by the  
11 ratepayers.

12

13 **Q. Are you suggesting that people who live in more rural areas are entitled to a**  
14 **lesser response standard?**

15 A. People make a variety of choices in their lives. The desire to live in more rural  
16 areas provides a vastly different life style which many people find desirable.  
17 However, with that more isolated character, there must be a recognition of less  
18 availability of certain services. Greater response time to more rural areas further  
19 from the urban centers where gas company operating centers are located is an  
20 inevitable result.

21

22 **Q. Are there other examples where more rural areas receive less safety attention**  
23 **than more urban areas?**

1 A. Yes. One of the techniques for providing for safety is performing leakage surveys  
2 to search for gas leaks. The Minimum Federal Safety Standards for Natural and  
3 Other Gases (49 CFR 192) and New Hampshire requirements make a major  
4 distinction between business districts (which require an annual leakage survey)  
5 and other areas of the system (which requires a survey every 3-5 years) (49 CFR  
6 §192.723).

7

8 Also, under Federal and New Hampshire requirements, the maximum pressure to  
9 which a gas pipe may be operated is based on the density of “buildings intended  
10 for human occupancy.” The most rural areas (Class 1) are allowed to operate steel  
11 pipe at 180% of the pressure level in a more urban area (Class 3) (design factor  
12  $.72/.5 = 180\%$ ) (49 CFR §192.111).

13

## 14 **VI. PERFORMANCE COMPARED TO TARGETS**

15 **Q. How well did Until perform relative to the settlement targets?**

16 A. The performance of Unutil, in an absolute sense, is excellent. The performance  
17 compared to the Settlement targets depends on the interpretation of the target.

18

19 **Q. Assuming the targets are annual targets, how did Unutil perform?**

20 A. Regular Hours Emergency Response within 30 minutes and within 45 minutes, on  
21 an annual basis, exceeded the target. Regular Hours Emergency Response within  
22 60 minutes, on an annual basis, was 1% below target in 2009 (96% versus 97%) –

1 the first year and solely due to the performance in the 1st month of the program.  
2 Regular Hours Emergency Response within 60 minutes exceeded the target in  
3 2010 and 2011 (100% versus 97% target). This performance is excellent.

4  
5 After Hours Emergency Response for 45 and 60 minutes, on an annual basis,  
6 exceeded the target each year. Performance for the 30 minute target was not met  
7 and is discussed below.

8  
9 Weekend/Holiday Emergency Response for 60 minutes, on an annual basis,  
10 exceeded the target each year. Weekend/Holiday Emergency Response for 45  
11 minutes, on an annual basis, exceeded the target for 2009 and 2011, but fell short  
12 for 2010. Performance for the 30 minute target was not met and is discussed  
13 below. The major shortcomings were meeting the 30 minute targets for After  
14 Hours and Weekend/Holidays.

15

16 **Q. Were actions taken to address these shortcomings?**

17 A. Yes. From the beginning of 2009, Unitil has tried diligently to achieve the targets  
18 established by the settlement. When initial results were not satisfactory, Unitil, in  
19 January 2009 added two new employees responsible for emergency response and  
20 assigned them to a new shift Monday through Friday from 1:00 PM to 9:00 PM to  
21 extend after-hours coverage. In March of 2010 a third person was shifted from  
22 normal hours to Monday through Friday from 1:00 PM to 9:00 PM. In October  
23 2010 these three persons were changed to cover the hours of 3:00 PM to 11:00 PM

1 to again extend after-hours coverage. In January 2011 two additional regular  
2 hours' staff were moved to a new shift Tuesday through Saturday 8:00 AM to 3:30  
3 PM to improve Saturday coverage.

4

5 Also, Unitil made changes to the coverage areas – the organization of its service  
6 territory for emergency response – from two to three areas to improve its ability to  
7 respond promptly.

8

9 All of these staffing, shift changes and organizational changes were done to  
10 achieve compliance with the Emergency Response Standards. These actions  
11 involved costs that are being borne by the Company since they were not included  
12 in the existing rate structure. Despite these sincere efforts on the part of Unitil,  
13 success has not been attained.

14

15 **Q. Why then have the results failed to meet the standards?**

16 A. It was stated by Staff during the acquisition process that "Northern currently meets  
17 six of the nine standards easily. There's one that they're just slightly a little bit less,  
18 and there's two more that require a bit of focus on. That would be the 30 minute  
19 after hours and weekends." It would seem that the solution to the Emergency  
20 Response issue involved significantly more than Staff's perception that "slight  
21 tweaking and some management, that Unitil has ensured that they will focus on it"  
22 would solve the problem. It appears that Staff's feeling "confident that they

1 [Unitil] will meet those [standards]” was based on optimism rather than a detailed  
2 analysis of the facts and factors involved.<sup>3</sup>

3

4 The Company would be most eager to work with Staff to better “focus” its efforts  
5 and develop reasonable standards so that “slight tweaking and some management”  
6 will result in it being able to meet the targets.

7

8 **Q. Assuming the targets are monthly targets, how did Unitil perform?**

9 A. Regular Hours Emergency Response within 30 minutes, on a monthly basis was  
10 met 85% of the time; within 45 minutes was met 82% of the times; and within 60  
11 minutes 97% of the time.

12

13 After Hours Emergency Response within 30 minutes, on a monthly basis was met  
14 30% of the time; within 45 minutes was met 94% of the time; and within 60  
15 minutes 100% of the time.

16

17 Weekend/Holiday Emergency Response within 30 minutes, on a monthly basis  
18 was never attained; within 45 minutes was met 48% of the time; and within 60  
19 minutes 85% of the time.

20

---

<sup>3</sup> DG 11-196, Prehearing conference transcript, 10-04-11, p. 6

1 **VII. APPROPRIATE TIME PERIOD FOR MEASURING EMERGENCY**  
2 **RESPONSE PERFORMANCE**

3 **Q. Is one time period – annually, quarterly or monthly – more appropriate for**  
4 **measuring emergency response performance?**

5 A. There is no absolute answer. Annual targets provide a broader view of the  
6 performance and smooth out anomalies that can occur in any data set. With  
7 monthly reporting, any concerns can be reviewed and addressed even with annual  
8 targets.

9  
10 Monthly targets give a more specific target but are subject to more anomalies and  
11 individual circumstances. Also, by using a smaller period, the universe of data is  
12 more limited. With a more limited data set, greater fluctuations occur and minor  
13 events can overwhelm the data. For example, if the target is based on a sample of  
14 10 items, each item affects the performance by 10% - a considerable amount. If  
15 the sample is 100 items, each item affects the performance by only 1 percent.  
16 Therefore, monthly targets are perforce subject to greater variation. Also, while I  
17 am not a statistician, I do recognize that an adequate sample size must exist for  
18 meaningful statistical analysis. The system of targets should ensure the adequacy  
19 of the sampling size.

20  
21 Operators and regulators must avoid chasing after anomalies and concentrate on  
22 the central issue at hand. Consequently, while either monthly or annual time

1 periods can be used, an adequate result can be achieved using annual measures. If  
2 monthly performance is used, the targets have to be adjusted accordingly to allow  
3 for the variances that occur in a smaller data base. For example, if an 80%  
4 performance were used on an annual basis, an appropriate monthly target might be  
5 70%.

6 **VIII. APPROPRIATE NUMBER OF TARGETS FOR EACH CATEGORY**

7 **Q. Are separate targets for 30 minute, 45 minute and 60 minute response time**  
8 **appropriate?**

9 A. The targets are first divided into Regular Hours, After Hours and  
10 Weekends/Holidays. This subdividing of performance addresses the issue of the  
11 general availability of crew during normal hours and the normal mode of  
12 operation, versus the nature of after hours and holiday and weekend operations  
13 where crew are not on normal shifts and often are responding from home rather  
14 than other duties. (Of course, in an attempt to improve after hour performance up  
15 to 11:00 p.m. and Saturday response from 8:00 AM to 3:30 p.m. shifts were  
16 added.)

17  
18 However, the targets in each of these three categories are also subdivided by  
19 response time – 30 minute, 45 minute and 60 minute. By creating 9 different  
20 categories with their own targets, the settlement created so many different groups  
21 that it is difficult to focus on the true purpose and nature of the targets. As I  
22 discussed with respect to moving from annual to monthly targets, each time a

1 target is subdivided, its needs to be adjusted to allow for the variances which occur  
2 in a smaller data base. It is not clear whether an analysis was performed to make  
3 those adjustments with respect to these 9 target categories.

4

5 **Q. Is there an alternative to creating nine distinct standards, while also retaining**  
6 **the essential objectives of the standards?**

7 A. Yes. Setting the target for regular hours at the 30 minute response level establishes  
8 30 minutes as the desired response time. It focuses on the ability to respond  
9 during normal business hours and the normal mode of operations. Using this as  
10 the standard for regular hours will adequately address the response time issue.  
11 However, to protect against meeting the target at 30 minutes and failing to pay  
12 adequate attention to more than 30 minutes, the company could be required to  
13 provide an explanation for any response greater than 60 minutes.

14

15 Setting the target for After Hours and Weekend/Holidays at the 45 minute  
16 response level recognizes that responding during these times will generally require  
17 greater time than during times of normal operations. This would set the standard  
18 for response at 45 minutes. Again, to protect against meeting the target at 45  
19 minutes and failing to pay adequate attention to more than 45 minutes, the  
20 company could be required to provide an explanation for any response greater than  
21 60 minutes.

22

23 **Q. Has this method of setting standards been used in other jurisdictions?**

1 This method, while certainly not perfect, was used successfully in Connecticut for  
2 many years and is still in effect. It calls for a simpler standard to meet the needs  
3 for effective emergency response, provide for meaningful analysis, eliminates  
4 many of the anomalies, and requires operators to explain long responses (greater  
5 than 60 minutes).

6

7 **Q. Should identical response standards be applied to every utility?**

8 A. No. There were statements made in the pre-hearing conference that the targets set  
9 for Unutil are the “exact same standards that apply to National Grid.”<sup>4</sup> The two  
10 companies are significantly different in size (a factor discussed above). Also, the  
11 service territory of National Grid tends to be concentrated in larger cities as  
12 opposed to distributed throughout rural areas that characterize Unutil’s service  
13 territory (also discussed above). These and other factors would suggest that the  
14 Emergency Response Standards should be tailored to the unique characteristics  
15 and circumstances of each utility.

16

17 **Q. Does New York use a similar or identical set of Emergency Response**  
18 **Standards?**

19 Staff claims that New York uses the 3 x 3 matrix of classes of hours and response  
20 time blocks. – “we need only look as far as New York State to see very similar  
21 standards, with similar breakdowns of 30, 45, and 60 minutes, and during work

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<sup>4</sup> DG 11-196, Prehearing conference, 10-04-11, p. 19

1 hours, after hours, and during weekends and holidays.”<sup>5</sup> However, the State of  
2 New York Department Of Public Service 2010 Gas Safety Performance Measures  
3 Report (Case 11-G-0242) dated June 1, 2011 (attached to this testimony),  
4 addresses the standard for leak response in New York, “[T]he following have been  
5 established as acceptable overall response time<sup>6</sup> standards: 75% within 30 minutes,  
6 90% within 45 minutes, and 95% within 60 minutes” (page 16). It does not  
7 segregate the response by regular hours, after hours and weekends/holidays. The  
8 New York targets and Unutil’s performance are shown in the following table.  
9

Response Objective	Goal	Actual Response		
		2009	2010	2011
30	75%	75%	78%	80%
45	90%	93%	93%	96%
60	95%	97%	99%	100%

10  
11 Unutil would have clearly surpassed the New York targets.

12 **IX. ON-GOING STATUS REGARDING MEETING TARGETS**

13 **Q. Did Unutil keep the Commission advised of its performance in meeting the**  
14 **targets in the Settlement?**

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<sup>5</sup> *Id*  
<sup>6</sup> “For the purposes of reporting, the response time is measured from the time the call is sent to the company dispatcher to the time of arrival of qualified company personnel at the location.  
“When an LDC responds to an odor, and an investigation determines that the problem is not attributed to natural gas, the event is nevertheless included in the reported data. This is because LDCs must respond as if it is an actual gas emergency until proven otherwise.” (internal footnote deleted)

1 A. Yes. The first sample report was sent to Staff in April 2009 with a request for a  
2 meeting to discuss the filings. A follow-up letter was sent in May 2009 with a  
3 second request for a meeting. A meeting was held in June 2009. Unitil expected  
4 that Staff would respond to them subsequent to the meeting. In August 2009,  
5 during a discussion with Staff regarding other matters, Unitil advised Staff that  
6 they were not able to meet the targets for the 30 minute response. Nothing further  
7 took place and in February 2010, Unitil filed detailed response data for January  
8 2010 and monthly thereafter. In response to a Staff request in the 1<sup>st</sup> quarter of  
9 2010, Unitil filed its data for 2009. The monthly filings (and the filings for 2009)  
10 clearly showed that the targets were not being met, but that improvement was  
11 occurring.

12  
13 A subsequent meeting was held at Staff's request in March 2011 at which point a  
14 more detailed discussion took place about the shift changes Unitil has made in an  
15 attempt to meet the settlement targets. While more communication could have  
16 taken place to ensure Staff was aware of the problem, adequate information was  
17 available to them to understand that meeting the targets was problematic. In April  
18 2011, Staff authored a memo recommending a proceeding to institute civil  
19 penalties against Unitil.

20  
21 **X. THE SETTLEMENT PROCESS**

22 **Q. What are the benefits of the settlement process?**

1 A. The settlement process allows for an expeditious resolution of complex issues for  
2 which the parties may have disparate, sometimes antagonistic, views. It can allow  
3 for a reasoned resolution to a series of complex matters. It avoids a lengthy  
4 hearing process, allows for direct intervention of the affected parties and can be an  
5 efficient use of resources. The process is one that is beneficial to the regulatory  
6 process and should be supported. As stated in the Settlement decision, a  
7 settlement provides “an opportunity for creative problem-solving, allows the  
8 parties to reach a result more in line with their expectations, and is often a more  
9 expedient alternative to litigation.”

10

11 **Q. Are there problems that can result from the settlement process?**

12 Although there are advantages that can come from the settlement process,  
13 settlements sometimes leave gaps or create unforeseen problems. In this case, the  
14 settlement process clearly failed to produce a result that satisfied the needs of all  
15 the parties, of the customers and the public.

16

17 The Commission Staff made certain representation about the leak response targets  
18 – “slight tweaking and some management” - that proved to be incorrect. While  
19 there is every reason to believe that the representations were made in good faith,  
20 they are the basis for the current problems, for Unitil relied upon those  
21 representations. Despite sincere efforts to deal with the issue, Unitil has not been  
22 able to produce the results desired by Staff.

23

1 **Q. Does Unutil bear some of the burden for the failure of the settlement process**  
2 **to address emergency response?**

3 A. Yes. Unutil bears some of the burden in that it accepted, unchallenged, the  
4 representations of Staff. They did not perform a detailed analysis of the issue to  
5 determine the veracity of the representation. However, it must be taken into  
6 consideration that Unutil was not the owner of Northern Utilities at the time of the  
7 settlement and had only limited access to the records and data of Northern.

8  
9 **Q. Why should the Commission not enforce the settlement agreement as written?**

10 A. The objective of the Commission's approval of the proposed settlement agreement  
11 was to affect a balancing of the needs of the ratepayers, the citizenry and the  
12 Company. Its Staff was actively involved in the process. Certainly, the  
13 Commission should be concerned about undermining the process or the integrity  
14 of its dedicated Staff. There is every indication, however, that Unutil has made  
15 sincere, concerted and correct efforts to meet the targets called for in the  
16 settlement, but the targets were not attainable. Moreover, as I discuss above,  
17 Unutil's emergency response times have been excellent, and safety considerations  
18 have consistently been the focus of management's attention.

19

20 **XI. HOW TO RESOLVE THE ISSUE**

21 **Q. How would you recommend that the Commission resolve the issue?**

1 A. I believe the objective of the Commission is tied to the long honored concept of  
2 utility regulation – safe, adequate and proper service at just and reasonable rates.  
3 The primary issue here is safe service. It seems that the desire for public safety  
4 through the emergency response targets as outlined in the settlement is not  
5 achievable without significant additional costs being incurred by Unitil, and  
6 eventually by ratepayers in upcoming proceedings. However, adequate safety can  
7 be afforded by reviewing the targets and modifying them in a manner that  
8 produces high levels of public safety without large amounts of additional funds  
9 needing to be expended.

10

11 **Q. Is it not appropriate that Unitil be penalized for failing to meet the targets in**  
12 **the settlement?**

13 A Penalties are retaliatory and should be imposed to “return like for like.” Unitil  
14 made real and sincere efforts to comply with the targets. They have improved  
15 performance since acquiring Northern Utilities by improving the dispatch portion  
16 of the operation. They have tried, successfully, changing shifts to produce  
17 improved performance. There has been no lack of effort or attention, no lack of  
18 will, and no lack of desire to achieve the targets. The targets are just not attainable  
19 under current conditions. Penalties will not cause Unitil to be able to achieve the  
20 desired result – it will simply be an exercise of vindictiveness for having been  
21 cooperative and trying to meet the desires of Commission Staff for safety  
22 improvement.

23

1

2

3 **XII. CONCLUSION**

4 **Q. Please summarize your testimony.**

5 A. Unitil reached a settlement regarding emergency response in good faith that it  
6 could meet the targets based upon staff representations. Unitil worked diligently  
7 to achieve the targets by improving their management practices and by changing  
8 the work shifts of emergency responders to try to deal meet the targets. Unitil  
9 significantly improved its leak response. In spite of these diligent efforts, they  
10 could not attain the overzealous targets in the settlement. As a result, and taking  
11 the entirety of the circumstances into consideration, I do not recommend that a  
12 penalty be assessed in this case.

13

14 Given the testimony of the other Company witnesses in the case, the Commission  
15 needs to address whether it wishes ratepayer funding to increase in order to meet  
16 the targets.

17

18 Commission Staff and Unitil need to meet to develop targets that are reasonably  
19 achievable within the existing resources. I have presented a framework for such  
20 targets, which is currently the standard in effect in the State of Connecticut, and  
21 believe that these have worked quite well in ensuring safety and balancing the  
22 other factors which should be considered.

1

2

3 **Q. Does this conclude your testimony?**

4 **A. Yes, it does.**