		DG-11-196
	THE STATE OF NEW HAMPSHIRE	Kar
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Debra A. Howland	21 S. Fruit Street, Suite 10 Concord, N.H. 0380 22429 DG 11-190	4.1
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	January 9, 2012	NH PUBLIC UTILITIES COMMISSION
Ms. Debra A. Howland		
Executive Director		01
New Hampshire Public Utiliti	es Commission	The second se
21 S. Fruit Street, Suite 10		

Re: Docket No. DG 11-196, Unitil Corporation and Northern Utilities, Inc. Show Cause Proceeding Staff Testimony

Dear Ms. Howland:

Concord, New Hampshire 03301

Please find attached the pre-filed testimony of Randall S. Knepper, Director of the Commission's Safety & Security Division, on behalf of Commission Staff in the above-captioned matter.

Please let me know if you have any questions regarding this filing.

Sincerely yours,

Appen Jabrizio

Lynn Fabrizio, Esq. Staff Attorney

cc: Service List (via e-mail)

1	Q.	Please state your full name?
2	А.	My name is Randall S. Knepper.
3		
4	Q.	By whom are you employed and what is your business address?
5	А.	I am employed by the New Hampshire Public Utilities Commission as Director of Safety
6		& Security. My work address is 21 South Fruit Street, Suite 10, Concord, New
7		Hampshire.
8		
9	Q.	Have you previously testified before the Commission?
10	А.	Yes, I have testified before the Commission on numerous occasions.
11		
12	Q.	Please summarize your education and professional work experience.
13	А.	I received a Bachelor of Science in Mechanical Engineering from the University of
14		Rochester and a Master of Science in Civil Engineering from the University of
15		Massachusetts. I am a licensed Professional Engineer in the State of New Hampshire (No.
16		9272). I have been the Director of Safety for the New Hampshire Public Utilities
17		Commission since December 2004. Prior to that I was an environmental consultant and
18		Business Development Manager at The Smart Associates, Environmental Consultants, Inc.
19		of Concord. I also have prior experience in the gas industry through a number of business
20		and operations roles at KeySpan Energy Delivery and EnergyNorth Natural Gas Inc.,
21		including Key Account Executive, Commercial & Industrial Sales Manager, Sales
22		Engineer, Senior Engineer, Staff Engineer and CAD Supervisor. In those roles, I designed
23		distribution systems, recommended capital improvement projects and system expansions,

1		wrote operations and maintenance procedures, oversaw construction projects and
2		maintained code compliance. I also worked at Westinghouse Electric designing high
3		voltage transmission busses as a project engineer.
4		I have completed 14 week long Technical Training Courses and 19 web based
5		training modules provided by the Training and Qualification Center (formerly the Training
6		Safety Institute (TSI)) of the federal Pipeline and Hazardous Material Administration. I
7		currently serve as staff engineer for the New Hampshire Site Evaluation Committee and as
8		subject matter expert for the New Hampshire Advisory Council on Emergency
9		Preparedness and Security. I also serve as the lead contact for the Energy Support
10		Function within the New Hampshire State Emergency Operation's Plan and have primary
11		roles within the Commission's Continuity of Operations Plan. My professional work
12		experience spans more than 26 years.
13		
14	Q.	What professional organizations are you a member of?
15	А.	I am a member of the Association of Energy Engineers and I serve as Vice Chair of the
16		Executive Board of the National Association of Pipeline Safety Representatives (NAPSR),
17		as well as on multiple committees and task forces within NAPSR. In that capacity, I
18		served as editor of NAPSR's Compendium of State Pipeline Safety Requirements &
19		Initiatives Providing Increased Public Safety Levels Compared to Code of Federal
20		Regulations 1 st Ed. 2011 (September 30, 2011). I also serve as a member of the National
21		Association of Regulatory Commissioners' (NARUC) Pipeline Safety Task Force and as
22		Chair of the NARUC Pipeline Safety Subcommittee. In addition, I maintain the Primary
23		Regulator Position of the Common Ground Alliance's Technology Committee, and am a

्रा		board member of the New Hampshire Public works Standards and Training Council.
2		Finally, I have testified before the United States Congress on pipeline safety issues.
3		
4	Q.	What is the purpose of your testimony in this proceeding?
5	A .	The purpose of my testimony in this proceeding is to comment on Unitil Corporation's
6		(Unitil's or the Company's) failure to comply with Commission Order No. 24,906
7		(October 10, 2008), approving the settlement agreement reached in Docket No. DG 08-
8		048 regarding Unitil's acquisition of Northern Utilities, Inc. In particular, I will comment
9		on Unitil's performance with respect to the Emergency Response Standards established
10		in Article VI, section 6.6 of the settlement and approved in the Commission's order. I
11		will also provide recommendations for possible Commission actions to address the
12		Company's failure to meet those standards.
13		
14	Q.	What are your primary concerns regarding Unitil's emergency response
15		performance?
16	А.	As will be discussed in further detail below, Order No. 24,906 established certain
17		emergency response time standards for leak and odor calls received from non-Unitil
18		personnel. The monthly data submitted by the Company pursuant to the Settlement
19		Agreement show a clear pattern of non-compliance with several of those standards. My
20		overarching concern is that the continuing pattern of missed benchmarks has serious
21		implications for public safety.
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2

Q. Please comment on the standards set out in Article VI, Section 6.6 of the Settlement Agreement approved in Commission Order No. 24,906.

3 À. The Emergency Response Standards set forth in Order No. 24,906 state that the company 4 will meet specific percentage benchmarks for emergency response times. The standards 5 track the time it takes the utility to arrive on the scene following a call reporting gas leaks 6 and/or odors received by the utility from a party other than a utility employee or 7 representative. As Unitil states in its training presentation for Emergency First 8 Responders, submitted in discovery in this proceeding "[r]esponse to odor complaints is 9 the most important job that any gas company employees performs. All odor complaints 10 are considered to be hazardous leaks until proven otherwise." See RSK Att. 6, 11 Emergency Response – Protecting Public Safety at p. 27/115 (Company Response to 12 Staff 1-36, Attachment 1); and Proposed Revisions to the O&M Manual (Company 13 Response to Staff 1-36, Attachment 3). The response time is a critical component in a 14 utility's ability to begin the site assessment of the degree of hazard posed by a reported 15 threat. Potential threats simply cannot be eliminated until arrival on scene and must be 16 considered emergencies until proven otherwise. As noted, Unitil's training materials 17 reinforce this concept. It should be noted the response time does not include the time it 18 takes to perform and classify a leak investigation, nor does it include the time it takes to 19 complete any repairs that may be required or the time it takes to clear the emergency 20 response.

21

Q. Are there any national standards applicable to emergency response procedures for
 natural gas pipelines?

1	A.	The applicable national pipeline safety standard ¹ states as follows:
2		(a) Each operator shall establish written procedures. At a minimum, the procedures must
3		provide for the following:
4		(3) <u>Prompt and effective response</u> [emphasis added] 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 facility.
9		(iv) Natural disaster.
10		
11	Q.	Is this proceeding concerned with both the promptness and the effectiveness of the
12		Company's emergency response performance?
12 13	A.	Company's emergency response performance? No, this proceeding is concerned only with the promptness of Unitil's emergency
	A .	
13	A .	No, this proceeding is concerned only with the promptness of Unitil's emergency
13 14	A .	No, this proceeding is concerned only with the promptness of Unitil's emergency response performance. The emergency response that is being measured by the standards
13 14 15	A .	No, this proceeding is concerned only with the promptness of Unitil's emergency response performance. The emergency response that is being measured by the standards established in Order No. 24,906 is the time it takes utility personnel to respond to
13 14 15 16	A .	No, this proceeding is concerned only with the promptness of Unitil's emergency response performance. The emergency response that is being measured by the standards established in Order No. 24,906 is the time it takes utility personnel to respond to emergency calls concerning gas leaks and odors. The Safety Division makes no
13 14 15 16 17	A .	No, this proceeding is concerned only with the promptness of Unitil's emergency response performance. The emergency response that is being measured by the standards established in Order No. 24,906 is the time it takes utility personnel to respond to emergency calls concerning gas leaks and odors. The Safety Division makes no determination in this proceeding about the effectiveness of Unitil's overall emergency
13 14 15 16 17 18	A .	No, this proceeding is concerned only with the promptness of Unitil's emergency response performance. The emergency response that is being measured by the standards established in Order No. 24,906 is the time it takes utility personnel to respond to emergency calls concerning gas leaks and odors. The Safety Division makes no determination in this proceeding about the effectiveness of Unitil's overall emergency response program. To make a determination about the overall effectiveness of the
13 14 15 16 17 18 19	Α.	No, this proceeding is concerned only with the promptness of Unitil's emergency response performance. The emergency response that is being measured by the standards established in Order No. 24,906 is the time it takes utility personnel to respond to emergency calls concerning gas leaks and odors. The Safety Division makes no determination in this proceeding about the effectiveness of Unitil's overall emergency response program. To make a determination about the overall effectiveness of the Company's pipeline safety programs, the Safety Division would need to consider many

¹ See Attachment RSK 1 for the full text of <u>PART 192—TRANSPORTATION OF NATURAL AND OTHER</u> <u>GAS BY PIPELINE: MINIMUM FEDERAL SAFETY STANDARDS, 49</u> C.F.R. § 192.615(a), Emergency Plans.

Q.

Do federal regulations specify emergency response time frames?

2 Α. The Code of Federal Regulations sets out the minimum safety regulations that operators 3 of natural gas pipelines and other flammable gas pipelines must adhere to.² These 4 minimum safety requirements are codified as national standards. To establish more 5 granular requirements, a national code would have to take into account local conditions 6 and circumstances or expectations of the public in all locales. As a result, it likely would 7 be very difficult to reach national consensus on a common specific time frame within 8 which all operators and state regulators would find applicable to each local jurisdiction. 9 10 Q. Does the applicable national code allow states to adopt more stringent safety 11 standards or more specific safety standards? 12 **A.** 49 C.F.R. 192 does not require states to adopt more stringent or more specific standards.

but states have authority to do so under the Pipeline Integrity, Protection, Enforcement,

14 and Safety Act of 2006³ and most states, including New Hampshire, have implemented

15 more specific standards, either through statute, regulations, or commission orders. A

16 compendium compiled by NAPSR of such state initiatives is available on the

17 Commission website at <u>http://www.puc.nh.gov/Safety/safety.htm.</u>

18

19 Q. Has the New Hampshire Public Utilities Commission clarified the term "prompt
20 emergency response" and made it more specific?

² In Massachusetts, for example, Section 101 of the *Code of Massachusetts Regulations (General Requirement)*, 220 C.M.R. 101, specifically refers to relevant pipeline safety provisions as Minimum Federal Safety (MFS) Standards.

³ USC Title 49 Transportation, Subtitle VIII Pipeline, Chapter 601 Safety, Section § 60104. Requirements and limitation, 49 U.S.C.A. 60104.

1	A .	Yes. In this case, the standard for "prompt response" was clarified and defined by
2		establishing minimum response time benchmarks in categories of 30 minutes, 45 minutes
3		and 60 minutes in each of three different time periods, specified as Normal Business
4	×.	Hours, After Business Hours and Weekends and Holidays.
5		
6	Q.	What are considered Normal Business Hours, After Business Hours and Weekends
7		and Holidays under the order?
8	A.	The order does not specify what time frames should constitute each category of
9		emergency response time measurement; rather, the Company is permitted to identify
10		what constitute Normal Business Hours, After Business Hours, and Weekend/Holiday
11		Hours in accordance with its management and operational parameters. The Safety
12		Division recognizes that one gas operator may consider Normal Business Hours to be 8
13		a.m. to 5 p.m., Monday through Friday, while another may consider them to be 7 a.m. to
14		4 p.m., Monday through Friday. Likewise, holidays identified by the operator may not be
15		consistent with those recognized by State agencies.
16		The Settlement Agreement asks that the classifications be identified and used
17		consistently for reporting purposes. In its reporting pursuant to the Agreement, Unitil has
18		identified Normal Business Hours to be 7 a.m. to 4 p.m. Monday through Friday, After
19		Business to be 4:01 p.m. to 6:59 a.m., and Weekend/Holiday Hours to be 12 a.m. to 12
20		a.m. (i.e., 24 hours). The Safety Division notes that these classifications may or may not
21		be consistent with terms used in the Company's Collective Bargaining Agreements or in
22		its testimony in this proceeding, where the terms "Regular Hours", "Standby", "On call",

and "Shifts" are used and that those terms may not align with the classification terms used in the emergency response standards.

3

4 Q. Did Unitil agree to the safety conditions outlined in Commission Order No. 24,906? Yes. Order No. 24,906, issued on October 10, 2008, sets forth a number of operating 5 Α. 6 commitments that Unitil agreed to by settlement agreement in Docket No. DG 08-048. 7 Those commitments included certain safety conditions, such as those set forth in Section 8 6.6 of the Settlement Agreement regarding emergency response times to leak and odor 9 calls. The Commission's approval of Unitil's acquisition of Northern Utilities was based 10 in part on its review of the various conditions agreed to in that settlement.

11

Q. Were the minimum compliance benchmarks provided in the Settlement Agreement intended to establish enforceable standards?

14 Yes. Article VI, Section 6.6 of the Settlement Agreement established minimum **A.** 15 compliance benchmarks as part of the Gas Safety and Reliability conditions agreed to through settlement. Article IX, Sections 9.2 and 9.3 state that the Agreement is expressly 16 17 conditioned upon the Commission's acceptance of all its provisions, without change or 18 further condition, and that the Joint Petitioners, Staff and Parties agreed to the submission 19 of the Agreement as a resolution of the issues included within the Agreement itself. 20 Article X of the Settlement Agreement states that the Joint Petitioners, Staff and Parties 21 affirm that the Agreement is appropriate, just and reasonable and should be approved. 22 Further, Section 6.10 of the Agreement states that "[t]he parties and Staff further agree 23 that the metrics set by Articles V and VI do not define Northern's service-related

1		obligations in totality, and that the Commission may initiate service-related proceedings
2		and impose additional standards or requirements pursuant to the Commission's obligation
3		to ensure safe, adequate and reliable service." ⁴ Mr. Collin signed the Agreement on
4		behalf of Unitil Corporation.
5		
6	Q.	Please elaborate on the particulars of the concern you have noted regarding Unitil's
7		performance with respect to the emergency response time standards approved in
8		Commission Order No. 24,906 and public safety implications.
9	A.	My concerns relate to the implications of Unitil's continuing inability to meet the time
10		response standards and the company's position, as set forth in testimony, that rather than
11		seek compliance with the existing standards, the Commission should promulgate lower
12		standards. A prompt emergency response is a critical safety function and a fundamental
13		element of a utility's obligation to provide safe and reliable service, as Unitil recognizes
14		in its own training materials and as its expert witness in this proceeding has stated in the
15		materials he has presented as an instructor on gas pipeline safety. See RSK Att. 6 and
16		Confidential RSK Att. 9. Compromise of the established standards could have a direct
17		negative impact on utility emergency responders, local emergency responders including
18		fire and police officials, other utilities' employees who may be on scene, and the safety of
19		Unitil customers and the general public.
20		The Company's inability to comply with the standards agreed to in settlement and
21		approved by Commission order could lead to an escalation of potentially hazardous
22		situations, where local emergency responders may be hindered in their ability to

⁴ Order No. 24,906 (October 10, 2008), slip op. at 20, in Docket No. DG 08-049.

determine subsequent actions until utility personnel have arrived on the scene to assess
the cause of the leak or odor and the potential hazard. This places incremental risk upon
local emergency responders and the effectiveness of the overall emergency response
effort could be adversely affected. Any delay in a utility's emergency response to a
suspected gas leak has the potential to lead to an increasingly dangerous situation where
delays measured in seconds could lead not only to increased hazards but to the potential
for injury or loss of life or property.

8 According to its testimony, Unitil has made a number of changes in its emergency 9 response procedures to address the standards. However, it appears to conclude that the 10 standards cannot be met using its existing "on call" arrangements, therefore lower 11 standards should be developed or, alternatively, emergency responder staffing should be 12 effectively doubled through the hiring of between nine and eleven additional service 13 technicians.

14

Q. Has Staff communicated with Unitil regarding its emergency response performance?

A. Yes. Staff and Unitil agreed to the initial standards as part of the Settlement Agreement approved in Order No. 24,906. The Agreement allowed the Company six months to
work with Staff to develop a monthly report format. At a meeting in June 2009, the
Company presented a proposed reporting format, which the Safety Division Staff stated at that meeting appeared to be fine. Staff also noted during the June 2009 meeting that
quarterly reporting under Puc 504.07(a) would no longer be required, given the monthly
reporting requirements established in Order No. 24,906, but that the detailed explanations

required under Puc 504.07(c) for any response time in excess of 60 minutes, including the amount of time taken to arrive at the location of the reported gas odor, would continue to apply.⁵

3 The Company began to comply with the monthly reporting of emergency 4 response times in January 2010 (submitted to Staff in February 2010). Upon receipt of 5 the Company's initial reports covering response data for the year 2010, Staff requested 6 data for 2009 and further requested that the reported data be provided in spreadsheet 7 format rather than .pdf format. The spreadsheet format enabled Staff to track the data in 8 graphic form to facilitate the monitoring of compliance trends. Based on its analysis of 9 the monthly data submitted by the Company, Staff noted distinct areas of concern 10 regarding non-compliance for After Hours, Weekend and Holiday response time 11 standards. Safety Division Staff raised its concerns with Company personnel on 12 numerous occasions in the course of discussions regarding safety-related issues, 13 generally. In March 2011, a meeting was held at the Commission offices between Staff 14 and Unitil solely to discuss emergency response performance. Again, Staff emphasized 15 that the 60+-minute explanations were not being provided. The data, however, continued 16 to indicate a pattern of non-compliance and Staff decided to inform the Commission of its concerns. Staff believed that the public safety implications warranted direct attention 17 18 from the Commission itself.

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Q Are there other safety related concerns you believe are relevant to the Commission's
 review of compliance with the emergency response standards approved in Order
 No. 24,906?

⁵ The Company does not appear to be providing the detailed explanations required by Puc 504.07(c).

1 Α. The Safety Division has not undertaken a comprehensive review of all aspects of Unitil's 2 safety program and, although the Company mentions a number of other programs in its 3 testimony, Staff has not proposed to investigate company safety related programs, such as 4 Distribution Integrity Management, that are not addressed in the original memorandum of 5 April 22, 2011. By limiting its focus to emergency response times, the Safety Division 6 does not contend in this proceeding that all the other conditions in sections 6.1 through 7 6.10 are being met or that all other company safety programs are in full compliance with 8 relevant regulatory requirements, as those subject areas fall outside of the scope of Staff's 9 memorandum.

10

Q. What does your analysis of Company data indicate with respect to Unitil's
 compliance with the standards since Staff filed its memorandum on April 22, 2011?
 A. The April 22, 2011 memorandum was based on data provided by the Company through
 February 2011, which showed 58 instances in which monthly benchmarks were not
 achieved. The breakdown of those instances was as follows:

16

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Table RSK-1.

January 2009 through Feb 2011 (26 months)							
Classification Response Interval No. Months Not Ach							
Normal Hours	30 minutes	1					
After Hours	30 minutes	19					
Weekends and Holidays	30 minutes	25					
Normal Hours	45 minutes	Achieved					
After Hours	45 minutes	2					
Weekends and Holidays	45minutes	8					
Normal Hours	60 minutes	Achieved					
After Hours	60 minutes	Achieved					
Weekends and Holidays	60 minutes	3					

- 12With 9 categories tracked for 26 months, the total number of possible achievement3instances was 234. The actual monthly achieved results equate to a 24.8 % non-4compliance rate or 75.2% success rate.5Since the time of the memorandum filing, Staff's concern has not diminished. 96additional months of data have been submitted, showing the number of instances in7which monthly benchmarks were not achieved increased from 58 to 80. The8corresponding breakdown was as follows:
- 9 10

Table RSK-2.

January 2009 through Nov 2011 (35 months)							
Classification	Response Interval	No. Months Not Achieved					
Normal Hours	30 minutes	2					
After Hours	30 minutes	24					
Weekends and Holidays	30 minutes	34					
Normal Hours	45minutes	Achieved					
After Hours	45minutes	2					
Weekends and Holidays	45minutes	14					
Normal Hours	60 minutes	Achieved					
After Hours	60 minutes	Achieved					
Weekends and Holidays	60 minutes	4					

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13The potential for meeting benchmarks in 9 categories over the course of 35 months14totaled 315 possible achievement instances. This equates to a 25.4 % non compliance15rate or 74.6% success rate.

16Attachments RSK 2-1, RSK 2-2, RSK 2-3 provide monthly data compilations17covering 35 months from the implementation of the standards. Attachment RSK 3

1 graphically depicts the number of instances where percentage thresholds has been 2 achieved as well as those that have not been achieved over the same 35-month period and 3 labels the number of instances where Unitil's performance falls "below the line," i.e., 4 does not achieve compliance. Attachments RSK 4-1, RSK 4-2, RSK 4-3 provide a 5 detailed breakdown of each emergency leak or odor call out and detailed data of response 6 times for the entire year 2009, 2010 and 11 months of 2011. Attachment RSK 5-1 7 summarizes the number of calls received each month by Unitil and the corresponding 8 number of responses per each benchmark. The quantity of missed calls per each 9 benchmark is highlighted for the After Hours and Weekends/Holidays since those were 10 the benchmarks most often missed. 11 In sum, the Safety Division is concerned by the number of instances in which 12 Unitil has been unable to meet emergency response time standards, as well as the overall 13 trend of substandard emergency response performance during the After Hours and 14 Weekend/Holiday timeframes. 15 16 0. Have there been any changes to the graphs filed with Staff's April 22, 2011 17 memorandum? 18 Α. Other than the addition of more recent data, Staff did find some minor discrepancies in 19 reviewing the data that was shown in the table and the accompanying graph but they do 20 not materially change the overall compliance trend or the number of instances where 21 achievement of benchmarks was not met. The months of January 2009, July 2009, May 22 2010, December 2010 and February 2011 show changes. Staff notes that the Staff 23 inadvertently designated 100% compliance in the month of July 2009 for meeting 30

minutes for the Weekend/Holidays when, in fact, none of the calls received were

responded to within 30 minutes.

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Table RSK-3.

Date	Category	Original As filed 4/22/2011 Memorandum	As Revised Jan 9 2012 Knepper Testimony	Affect Outcome
	0-30 Minutes (Actual) Normal Hours	5.10%	55.81%	No
January-09	0-45 Minutes (Actual) Normal Hours	35.90%	69.77%	No
	0-60 Minutes (Actual) Normal Hours	46.20%	74.42%	No
July-09	0-30 Minutes (Actual) Weekends/Holid	100.00%	0.00%	YES
May-10	0-30 Minutes (Actual) After Hours	67.00%	66.67%	No
December-10	0-30 Minutes (Actual) Normal Hours	88.00%	80.00%	No
December-10	0-45 Minutes (Actual) Normal Hours	99.00%	95.00%	No
×.	0-30 Minutes (Actual) After Hours	86.11%	43.75%	No
December-10	0-45 Minutes (Actual) After Hours	94.44%	78.13%	No
	0-60 Minutes (Actual) After Hours	98.61%	96.88%	No
	0-30 Minutes (Actual) Weekends/Holida	42.00%	42.42%	No
February-11	0-45 Minutes (Actual) Weekends/ Holid	79.00%	78.79%	No
	0-60 Minutes (Actual) Weekends/Holid	91.00%	90.91%	No

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- 6

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7 Q. Unitil contends that it has improved its emergency response time performance.

Does the Safety Division agree with that statement?

9 A. Continual improvement in all areas of pipeline safety is an ongoing objective that the 10 Safety Division expects of all gas pipeline operators, including Unitil. Improvement in 11 safety performance can be measured in a number of ways depending on the data collected 12 and how the data are parsed. If one were to look at the number of emergency response 13 time observations reported on a monthly basis, as presented above, then performance has 14 been steady at best or even slightly less (75.2% success rate in first 26 months compared 15 to 74.6% in the first 35 months). If one were to look at the number of instances where it

took greater than 60 minutes to arrive on scene, there has been an improvement from

2009 to 2011 overall, but not during Weekend/Holiday hours.

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Table RSK-4.

	2009					2010			Τ	2011 (11 mo)			
	Time of Call MONTH	NORMAL BUS HOURS ACTUAL	AFTER HOURS ACTUAL	WEEKEND /HOLIDAY HOURS ACTUAL		NORMAL BUS HOURS ACTUAL	AFTER HOURS ACTUAL	WEEKEND /HOLIDAY HOURS ACTUAL		NORMAL BUS HOURS ACTUAL	AFTER HOURS ACTUAL	WEEKEND /HOLIDAY HOURS ACTUAL	
January	Plus 60 Min	22	1	0	T	0	0	1		0	0	0	
February	Plus 60 Min	0	. 1	0	T	0	0	0		0	0	3	
March	Plus 60 Min	1	0	1	T	0	0	0		0	0	0	
April	Plus 60 Min	0	0	1		.0	0	0		0	0	0	
May	Plus 60 Min	0	0	1		0	Ö	0	1	0	0	0	
July	Plus 60 Min	0	0	0		0	. 0	1		0	0	1	
September	Plus 60 Min	0	1	0		1	0	0		1	0	0	
October	Plus 60 Min	0	1	0		2	0	0		0	0	0	
November	Plus 60 Min	0	0	0	T	0	0	1		0	0	0	
December	Plus 60 Min	0	1	1		0	0	1					
YEAR		23	5	4		3	0	4		1	· 0·	4	
			32				7]			5		

5

Note June had zero in all 3 classifications for 2009, 2010, 2011

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If one were to compare the number of missed opportunities that, if avoided, would have allowed Unitil to achieve full compliance with the benchmarks in the After Hours and Weekends/Holiday classifications for each of the categories, then there seems to be an increase from 2009 to 2010 but a decrease from 2010 to 2011 for Weekends and Holidays. It should be noted that December 2011 data have not been included since at the time of this writing as Unitil has not submitted the associated emergency response data.

Table RSK-5.

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Missed calls that, if avoided, would have							
	achieved full compliance with						
En	Emergency Response Time standards						
Year	After Hours Weekends						
2009	-31 -39						
2010	-14 -64						
2011	-15 -47						

Summary of Missed Calls per Year See Attachment RSK 5 -1

Q. Unitil has reported that it filled two new personnel positions to fulfill emergency
response functions after its acquisition of Northern Utilities. Do those hirings
demonstrate the Company's commitment to improving its emergency response
capabilities?

8 It is unclear, based on my review of testimony and discovery responses submitted in this **A.** 9 proceeding, whether the Company's emergency response capabilities have increased at 10 all. Initially, as stated in the transcript of the hearing in Docket No. DG 08-048 by Mark 11 Collin, Unitil's intentions were to hire two new service technicians and one distribution 12 operator to provide services for emergency response. See Hearing Transcript of August 13 19, 2008 at 39-41. Unitil also stated at that hearing that it would provide Staff with 14 updates of an integration plan that would address emergency response in the 15 Salem/Atkinson/Plaistow area. See Tr at 100-101. 16 Testimony in this proceeding stated that two service technicians and one 17 distribution operator were added to staffing after Unitil's acquisition of Northern

18 Utilities. In support of that statement, the Company's discovery response to Staff Data

Request1-9 states that two service technician jobs were posted in December 2008,
 although the hiring and emergency response training for those positions were not
 completed until May and August 2009. However, discovery also indicated that
 distribution operators are not part of the pool of employees who are considered for
 "traditional standby" and "on call" procedures.

6 Staff has no record that a formal integration plan was ever developed or 7 subsequently shared with Staff. It is further unclear whether there was any net gain or 8 benefit at all to the public in terms of emergency response coverage as a result of hiring 9 additional personnel to contribute to emergency response capabilities. The picture 10 becomes even less clear when subsequent retirements and postings for service technician 11 jobs are considered. Staff cannot ascertain if there was a net gain in the ability to respond 12 to emergency calls as was originally envisioned in Docket No. DG 08-048. In fact, based 13 on my review of testimony and discovery responses submitted in this proceeding. Unitil 14 added only one new Service Technician position with responsibility for emergency 15 response after the acquisition, not the three it stated on the stand in Docket No. DG 08-16 048. See supra at 39-41.

17

Q. Unitil has testified in this proceeding that it cannot meet the existing 30-minute
 standard for the After Hours and Weekend/Holiday timeframes without adding
 nine to eleven Service Technicians at a cost to ratepayers of \$1.3 to 1.5 million per
 year. Does Staff believe the solution offered by Unitil is the only alternative to
 achieving compliance?

A. No, Staff does not believe that is the case. First, Staff believes there are a number of
 alternative options including increasing the pool of emergency responders that do not
 appear to have been considered by the Company beyond the existing traditional standby
 methods of using only Service Technicians. According to the Company's Operator
 Qualification database, there are an existing ten distribution operator positions and four
 instrument technicians that have been qualified for the associated covered task identified
 as Investigating Leak/Odor Complaints. See RSK Att. 11.

Before hiring nine to eleven additional Service Technicians, measures could be 8 9 considered to ensure that "Held Times," *i.e.*, the length of time calls are held at the 10 dispatch stage, are limited to less than five minutes. Held Times greater than five minutes have occurred 39 and 27 times to date in 2010 and 2011, respectively, during the 11 After Business Hours and Weekend/Holiday timeframes. Similarly, measures could be 12 considered to ensure that "Acceptance Times," i.e., the time in which a First Responder 13 14 receives and accepts a call from dispatch, are no greater than ten minutes, for example. 15 In 2011, there were 37 occasions during After Hours and Weekend/ Holiday hours where Acceptance Times exceeded 10 minutes. In 2010, 42 such occasions occurred during the 16 After Hours and Weekend/Holiday timeframes. In 2011, for example, reductions in Held 17 Times and/or Acceptance Times on January 6, 2011, March 6, 2011, March 20, 2011, and 18 September 7, 2011, would have allowed the Company to achieve the benchmarks for 19 20 January, March and September 2011.

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Unitil's cost estimates do not reflect any offsetting savings of O&M expenses that would accrue with hiring additional personal. In addition, Staff found instances where it

appears that Unitil does not attempt to realign existing on-call assignments to fit the geographical on-call patterns.

Lastly, Staff does not believe that to achieve compliance for approximately 47 calls per year to date on Weekends/Holidays and 14 calls during After Business Hours the Company must hire nine to eleven additional employees at an estimated cost of \$1.3 million to \$1.5 million dollars per year.

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8 Q. Is there anything that precludes or limits Unitil from examining alternatives using
 9 or adjusting the "traditional standby" and "on call" procedures as set out in Unitil's
 10 testimony?

11 Unitil has testified in this proceeding that it must adopt traditional stand-by procedures to Α. 12 meet the standards within all time frames. See, e.g., Meissner Testimony at 23/25, lines 3-13 11. It has further attested through discovery that it is unaware of any alternative 14 solutions. See RSK Att. 7 (Company response to Staff 1-30). The Standards were 15 approved by the Commission in October 2008 and became effective in January 2009. At 16 that time, Unitil had in place an existing Collective Bargaining Agreement (CBA 1) that 17 expired June 5, 2010. The Company possessed emergency response data that showed the 18 response times for 18 months were not being achieved in all categories. The 18 month 19 period of data collection had occurred before the current Collective Bargaining 20 Agreement (CBA 2) became effective, allowing ample opportunity to modify CBA 2 21 during negotiations. Unitil has also testified that it attempted to modify CBA 2 in August 22 of 2011, after the Staff filed its April 22, 2011 memo.

1 Based on its review of the Company's testimony and discovery responses, the 2 Safety Division is not persuaded that company management has considered potential 3 alternatives to the "traditional standby" and "on call" procedures that could enable the 4 Company to fulfill the commitments it made regarding emergency response. For 5 example, data provided through discovery in this proceeding indicate that 6 out of the 11 6 designated First Responders (currently only Service Technicians) do not live within 7 Unitil service territory. See RSK Att. 10. The current Collective Bargaining Agreement 8 does not address proximity to service territory as a requirement. Thus, anyone of the 9 remaining 5 designated Service Technicians could also relocate to residences further 10 from the territory and potentially lead a further erosion of response times. Reassignment 11 of emergency response function to individuals who actually live within or closer to the 12 Company's service territory does not appear to have been considered. Nor does it appear 13 that the Company has considered cross-training its distribution technicians to perform 14 emergency response functions as supplements to the Service technician pool that 15 currently performs those functions. As noted, the Company has stated through discovery that it is "unaware of any alternatives," without identifying any options that it might have 16 17 considered, other than doubling its staff to fulfill a 24/7 schedule that would duplicate the 18 Normal Business Hours scheduling.

19

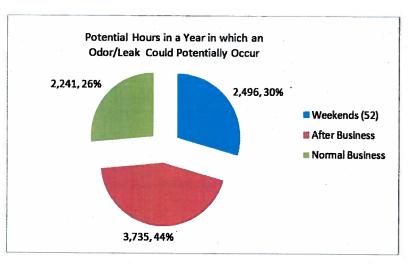
Q. Do you agree with the proposals made by Mr. Meissner and Mr. Sher in testimonyto
combine the Normal Business Hours, After Business Hours and Weekends/Holiday
data and to modify the percentage benchmarks for purposes of measuring
compliance with emergency response time standards?

1 **A**. No. Staff believes that the reporting of data in three separate timeframe classifications 2 adds transparency and permits refinement in emergency response performance. Staff 3 firmly believes the potential for a gas pipeline hazard to occur exists 24 hours a day, not 4 just during Normal Business Hours. Normal Business Hours represent approximately 25 5 percent of a gas pipeline operator's systems operation responsibility in terms of time 6 during the course of a year in which a potential emergency can occur. After Business 7 Hours represent approximately 43 percent of that time and Weekends and Holidays 8 represent approximately 32 percent of the possible times in which an emergency can 9 occur. The potential for a hazard does not diminish during "off hours" and, 10 consequently, a utility should be able to respond in a prompt manner regardless of when a 11 leak or odor call is received.

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Graph RSK-1.



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Staff seeks to minimize the possibility of a delayed emergency response time as a
 potential contributing factor to an incident. The emergency response time standards
 established in Order No. 24,906 are reflective of that expectation and intent. Because the

degree of a hazard cannot be established until a company representative physically arrives on scene, emergency response times are the underpinning of an effective safety procedure. Based on the Company's data, approximately 60 percent of all odor and leak calls occur during Normal Business Hours and 40 percent occur during "off hours". Unitil's staffing is heavily weighted to normal business hours compared to the 74 percent of the time in which an emergency could occur.

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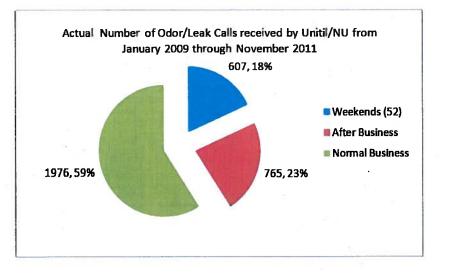
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Graph RSK-2.



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11Staff believes that combining timeframe classifications or averaging compliance12measurements, as the Company proposes, would mask issues or weaknesses in13emergency response procedures. Staff believes the goal should be to identify and14minimize or eliminate as many anomalies in emergency response performance as15possible, not mask them in an effort to make it easier for the Company to meet16benchmark standards.

Q. Mr. Sher refers to personnel availability and location as limiting factors that affect
 emergency response times.⁶ Does a utility need to address personnel availability in
 other parts of its operations, besides emergency response?

4 **A**. Yes. Based on my experience in the gas industry and as a utility regulator, utilities are challenged with adjusting personnel assignments and priorities to meet operational 5 6 demands every day. The demand for gas itself tends to be seasonal, while daily 7 consumption and weekly, monthly and yearly demands all experience fluctuating peaks 8 and valleys. Gas facility locators, for example, balance fluctuating requests each day for 9 DigSafe "tickets," including requests that come in with less than an hour advance notice 10 for emergency locate requests. Similarly, Gas supply departments are required to 11 continually adjust pricing and procurement decisions to address fluctuations in demand; 12 construction departments face seasonal challenges when frost, snow and inclement 13 weather conditions occur; call volumes to customer service representatives vary by the 14 hour; and meters fluctuate between periods of high and low usage.

The bottom line is that a utility tends to build a certain level of flexibility into its management of personnel and operational priorities to enable it to meet the regulatory obligation to provide safe and reliable service to customers. Thus, I am not persuaded by Unitil's apparent position that it has no alternative to doubling its emergency response staff in order to meet the agreed upon standards.

- 20
- Q. Unitil has suggested that the measurement for benchmark compliance is unclear
 and that the Commission's order does not specify how compliance is to be
 measured. Do you agree?

⁶ See, e.g., Sher Testimony at 11/29.

1 No. The standards established in Order No. 24,906 focus on month-to-month A. 2 performance of emergency response to leak and odor calls. The Settlement Agreement requires monthly reporting of the Company's ability to achieve those standards. The data 3 4 show that Unitil is not meeting the established benchmarks for certain designated timeframes, namely, After Hours and Weekends/Holidays. The Joint Stipulation of Facts 5 6 filed in this proceeding confirms that conclusion. The Company proposes to average the 7 monthly data and measure the results annually to even out anomalies in emergency 8 response times.

9 In Staff's view, Unitil is not in compliance with the standards, whether the data are measured monthly, quarterly or annually. Staff is concerned less with individual 10 instances of non-compliance than with the overall trends the data show. The graphs 11 12 submitted with Staff's April 22, 2011 memorandum, as updated to reflect data through 13 November 2011, clearly indicate that the Company is not in compliance with After 14 Business Hours and Weekend/Holiday standards. The data show that Unitil does not 15 meet the 30-minute benchmark in 2009, 2010 or 2011 for After Business Hours and Weekend/Holiday emergency response times. The data also show that Unitil violates the 16 17 45-minute benchmark standard for emergency response times during After Business 18 Hours.

19 Staff is concerned that the data trends, combined with the Company's apparent 20 failure to consider feasible alternatives to the proposed doubling of current staff at a cost 21 of \$1.5 million to ratepayers, indicate a lack of commitment to addressing non-business 22 hour leak and odor calls promptly. Based on its review of the data submitted by the 23 Company and the overall data trends regarding emergency response times, Staff decided

1		that the public safety implications of the Company's inability to meet the approved
2		standards were significant enough to raise the issue for the Commission's consideration.
3		
4	Q.	Do you have any recommendations for the Commission with respect to remedies
5		that would address your concern regarding the emergency response times?
6	А.	Yes. As set forth in my April 22, 2011 memorandum, I recommend that the Commission
7		consider a number of options or any combination thereof. The four options that I
8		recommended for consideration were to:
9 10		1) impose a civil penalty for non-compliance with the standards set forth in Commission Order No. 24,906;
11 12 13 14		2) schedule a show cause proceeding to determine why civil penalties should not be imposed for non-compliance;
14 15 16		3) link emergency response compliance with executive compensation; and/or
17 18		4) require a written explanation each month in which standards are not met, signed by a company executive.
19 20		At the October 4, 2011 prehearing conference, the Commission requested
21		suggested remedies and recommended procedures. Toward that end, Staff provides the
22		following further thoughts. First, I see two appropriate approaches to remedy the
23		concerns raised in this proceeding: retrospective and prospective.
24		A retrospective approach would penalize the Company for failing to rectify the
25		non-compliance and incent it to improve its performance. It is Staff's belief that if there
26		are no consequences for a prolonged failure to meet approved standards, there is little
27		incentive for a utility to comply with regulatory obligations. Civil penalties would fit
28		into a retrospective approach. A prospective approach would ensure that compliance is

1		achieved in the future. Such an approach could include alternative methods for			
2		measuring or ensuring compliance.			
3		Based on the advice of counsel and my own reading of the statute, I understand			
4		that RSA 365:41 grants the Commission authority to impose civil penalties on a public			
5		utility that violates an applicable statute, or that "fails, omits or neglects to obey, observe			
6		or comply with any order, direction or requirement of the commission." The instant			
7		case concerns the Company's failure to comply with the emergency response standards			
8		approved in Commission Order No. 24,906.			
9					
10	Q.	What factors do you propose the Commission take into consideration in			
11		determining whether civil penalties should apply?			
12	А.	It appears that two analyses here are appropriate: a qualitative assessment of the			
13	violation to be remedied to determine whether a penalty is appropriate and a quantitative				
14		assessment of the violation to determine what magnitude of penalty is appropriate. The			
15		Commission's rules governing civil penalties provide an appropriate initial framework			
16		for these analyses. See, e.g., Puc 511.05(c)(5), pertaining to gas safety and Puc 2106.06,			
17		pertaining to affiliate transactions. I propose that the Commission take into consideration			
18		the following factors that are relevant to the non-compliance with regulatory standards at			
19		issue here in determining the magnitude of appropriate civil penalties to impose, if any:			
17		issue note in determining the magnitude of appropriate ervir penalties to impose, it any.			
20		1. Nature of the violation.			
21		2. Extent of the violation.			
22		3. Gravity of the violation.			
23		4. Company efforts to comply.			
24		5. Economic benefits to shareholders for non-compliance.			
25		6. Deterrent effect of a penalty for future violations.			
26		7. Other factors.			
27					

For the Commission's consideration, I offer the following thoughts on each of the above
 factors.

3 1. Nature of the violation. The emergency response time standards at issue are 4 safety standards, not service quality standards. The potential safety risk to the public of 5 non-compliance with the standards includes injury as well as loss of life or property. 6 2. Extent of the violation. Based on data submitted to date by the Company, 7 Unitil has failed to meet the emergency response time standards in 80 instances during the 8 35 months since the implementation of this performance measurement and compilation of 9 data. 10 3. Gravity of the violation. Failure to meet the emergency response time 11 standards in 80 instances means that the safety risk to the public and Unitil's customers, as 12 well as that of other utility workers, was jeopardized during approximately 75 percent of 13 the time during which a potential emergency could occur (*i.e.*, during the After Hours and 14 Weekend/Holiday timeframes). As noted earlier in my testimony, emergency response 15 standards are a cornerstone of a gas pipeline operator's requirement for planning, preparing 16 and implementing effective emergency response and performance, and can have direct 17 implications for emergency responders such as police and fire officials, utility customers 18 and the general public. 19 4. Company efforts to comply. As the Company has testified, it has taken a

number of steps to address the non-compliance issue. The steps taken by company
management appear to be relatively limited, however. Management does not, for example,
appear to have pursued a thorough evaluation of workloads and emergency response
requirements. Based on testimony and discovery submitted by the Company, no detailed

1 operational plans appear to have been developed to address emergency response issues. 2 Although the Company testified in Docket No. DG 08-048 that it planned to hire three new 3 Service Technicians who would perform emergency response functions, in fact, it appears to have hired only one who contributes to emergency response. The Company appears to 4 5 have stopped its analysis at the doubling of its current staff without considering cross-6 training of other existing personnel to create a larger pool of on-call staff for weekends, 7 nights and holidays (to cover its territory and approximately 30,000 gas customers, it 8 assigns only 11 employees to be on-call for emergency response purposes); nor does the 9 Company appear to have considered altering current work shift assignments. 10 5. Economic benefits to shareholders for non-compliance. This is a difficult

11factor to measure, as the Company has not provided more than its staffing expansion12option. If that projection is taken as a guideline, then shareholders may have benefited by13from \$1.3 to \$1.5 million for the Company's failure to rectify its non-compliance. In any14event, the extent to which shareholders benefit from not implementing measures to15improve compliance with safety standards can indicate a higher level of the public's16exposure to safety risks.

6. Deterrence of future violations. As noted above, without consequences for non-compliance with regulatory standards, there is little incentive to make management and operational choices to rectify the violation of those standards. In the instant case, civil penalties under RSA 365:41 of up to \$250,000 or 2.5 percent of Northern's gross annual revenue, whichever is lower, as well as penalties under RSA 365:42 of \$100,000 per violation (here, up to approximately \$8 million for the 80 reported instances of noncompliance) applied to company executives responsible for making management and

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operational decisions to meet the standards agreed to in Docket No. DG 08-048 would provide incentive to directly address the non-compliance and deter future violations.

- 3 7. Other factors. As most state utility regulators are aware, the recent spate of 4 gas pipeline safety violations and consequent explosions and loss of life and property, such 5 as the incident in San Bruno, California in 2010, have focused federal attention on gas 6 safety. New, more stringent statutory penalty provisions were promulgated on January 3, 7 2012, as part of Congress's efforts to enforce existing safety regulations and to improve 8 safety performance of gas utility operators. The Commission would be well within its 9 regulatory prerogatives to enforce the standards it approved in Docket No. DG 08-048 by 10 levying penalties on Unitil for its failure to meet certain of those standards to date.
- 11

12 Q. Do you have any comments on a quantitative analysis that the Commission should 13 undertake in evaluating the magnitude of civil penalties to impose, if any? 14 Yes. As noted above, RSA 365:41 grants authority to the Commission to impose civil **A**. 15 penalties for failure of a regulated utility to observe, obey and comply with any order. 16 direction or requirement of the Commission. RSA 365:42 extends that authority to 17 imposing civil penalties on every officer and agent of a public utility who willfully fails 18 to obey, observe, and comply with any order of the commission, or procures, aids or 19 abets any public utility in its failure to obey, observe and comply with any such order or 20 provision.

The Staff here suggests that a range for the Commission to consider can be established within the parameters of those provisions. RSA 365:41, for example, provides that a civil penalty must be the lower of \$250,000 or 2.5 percent of gross

1		revenue. The gross revenue of Unitil is approximately \$62,000,000 annually; 2.5% of
2		\$62,000,000 annually is \$1,550,000. Thus, the upper cap under this provision would be
3		\$250,000. In Order No. 25,266 (September 8, 2011), the Commission indicated that RSA
4		365:42 may be applicable, as well, if evidence warrants imposition of penalties on any of
5		the Company's officers. Staff takes no position on whether Unitil's officers have
6		willfully violated a Commission Order and defers to the Commission to determine if
7		RSA 365:42 is applicable. If applicable, \$100,000 per each instance or up to \$8,000,000
8		could be established as an upper cap.
9		The Commission is, of course, permitted to determine lesser amounts under either
10		RSA 365:41 or RSA 365:42, based on its consideration of factors relevant to the non-
11		compliance to be addressed.
12		
13	Q.	Do you have any proposals for the Commission to consider with respect to the
13 14	Q.	Do you have any proposals for the Commission to consider with respect to the Company's prospective performance in meeting the emergency response time
	Q.	
14	Q. A.	Company's prospective performance in meeting the emergency response time
14 15	,	Company's prospective performance in meeting the emergency response time standards?
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14 15 16 17 18 19 20 21	,	Company's prospective performance in meeting the emergency response time standards? The Safety Division does not agree that lowering the standards or averaging the data, as proposed by the Company, are in the public interest. New Hampshire statute requires public utilities to deliver safe and reliable service. To lower the established emergency response time standards when more options have not been more thoroughly considered could indicate that this Commission considers public safety to be simply one more negotiable element of a company's operational decision-making, subject to economic

1	tend to mask poor performance as well as the underlying issues that lead to non-
2	compliance with the established standards, such as inappropriately balanced work load
3	assignments that fail to recognize that the After Hours and Weekend/Holiday timeframes
4	represent approximately 74 percent of the time in which an emergency could occur.
5	Staff, however, offers the modified approach outlined below as a possible means
6	to take the Company's concerns into account and maintain the focus on obtaining prompt
7	emergency response results. Staff emphasizes that it does not necessarily advocate for this
8	approach, but offers it as a possible modification for the Commission to consider. Staff's
9	proposed prospective approach centers on capturing performance trends. Toward that end,
10	not meeting any of the following conditions would subject Unitil to penalties as
11	determined by the Commission.
12 13	Non-compliance with the Emergency Response Standards could be measured by the
14	following modified metric:
15	
16	The same nine benchmark actoronics nor month must be achieved. Thus, must in the
10	The same nine benchmark categories per month must be achieved. Thus, measuring points are nine x twelve = 108 measuring points in any 12 consecutive months.
18	are mile x twerve – ros measuring points in any 12 consecutive months.
19	(a) If the benchmark is missed more than nine times in any combination of the
20	nine categories (A1,A2, A3,B1, B2, B3, C1, C2, C3) when considered in aggregate for any
21	consecutive rolling twelve-month period (<i>i.e.</i> , 4A1s, 3B2 and 2C1, 1 C3 = 10), then the
22	Company will have failed the metric and be subject to Commission penalties.
23	company will have hared the metre and be subject to commission penalties.
24	(b) If benchmarks are missed in any one category (three A1, or three A2 or three
25	A3 or three B1 or three B2 or three B3, or three C1 or three C2 or three C3) for three
26	consecutive months, then the Company would be subject to Commission penalties.
27	
28	(c) If the average of twelve months of any one category A1 B1 C1 A2 B2 C2
28 29	(c) If the average of twelve months of any one category A1, B1, C1, A2, B2, C2, A3, B3, C3 is below the monthly benchmark, the Company would be subject to
	A3, B3, C3 is below the monthly benchmark, the Company would be subject to
29	A3, B3, C3 is below the monthly benchmark, the Company would be subject to Commission penalties. Averaging would be based on the monthly result level (not 12)
29 30	A3, B3, C3 is below the monthly benchmark, the Company would be subject to

Category Label	Classification	Response Interval	Min % to Achieve
Category A1	Normal Hours	30 minutes	82%
Category B1	After Hours	30 minutes	80%
Category C1	Weekends and Holidays	30 minutes	76%
Category A2	Normal Hours	45minutes	90%
Category B2	After Hours	45minutes	86%
Category C2	Weekends and Holidays	45minutes	84%
Category A3	Normal Hours	60 minutes	97%
Category B3	After Hours	60 minutes	95%
Category C3	Weekends and Holidays	60 minutes	94%

(d) Twelve consecutive months would be the rolling time period (not necessarily annually) for all measurements except for (b).

Q. Does that conclude your testimony?

A. Yes, it does.