



**North  
Atlantic**

North Atlantic Energy Service Corporation  
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The Northeast Utilities System

December 4, 2001

NYN-01096

United States Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555

Seabrook Station  
"Supplemental Information for  
License Amendment Request 01-04"

Enclosed herein is supplemental information that was requested by the Nuclear Regulatory Commission (NRC) which pertains to License Amendment Request (LAR) 01-04 "Reactor Containment Integrated Leakage Rate Test Interval Extension." This LAR was forwarded to the NRC by letter dated August 2, 2001. As a result of a telephone conference that was conducted on September 6, 2001, an updated significant hazards determination and a revised copy of Engineering Evaluation EE-01-008, Revision 1, "PRA Evaluation: Risk Impact of Extending the Frequency of Containment Integrated Leak Rates Testing from 10 Years to 16 Years" were forwarded to the NRC by letter dated November 2, 2001. Attachment A of EE-01-008, Revision 1, included a sensitivity study to assist the NRC in their review of the subject LAR. However, due to an administrative error, three tables (Table A-1, Table A-2, and Table A-3) were erroneously omitted from the letter forwarded on November 2, 2001. The subject tables are provided in the enclosed.

Should you have any questions concerning this response, please contact Mr. James M. Peschel, Manager - Regulatory Programs, at (603) 773-7194.

Very truly yours,

NORTH ATLANTIC ENERGY SERVICE CORP.

Ted C. Feigenbaum  
Executive Vice President  
and Chief Nuclear Officer

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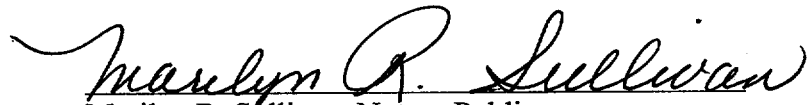
cc: H. J. Miller, NRC Region I Administrator  
G.F. Wunder, NRC Project Manager, Project Directorate I-2  
G.T. Dentel, NRC Senior Resident Inspector

STATE OF NEW HAMPSHIRE

Rockingham, ss.

DATE 12/4/01

Then personally appeared before me, the above-named Ted C. Feigenbaum, being duly sworn, did state that he is the Executive Vice President and Chief Nuclear Officer of the North Atlantic Energy Service Corporation, that he is duly authorized to execute and file the foregoing information in the name and on the behalf of North Atlantic Energy Service Corporation and that the statements therein are true and accurate to the best of his knowledge and belief.

  
Marilyn R. Sullivan, Notary Public  
My Commission Expires: March 19, 2002

**ENCLOSURE TO NYN-01096**

CDFTotal =	4.63E-05	
IntactCDF =	3.10E-05	<i>Freq[S5]</i>

**TABLE A-1 Mean Consequence Measures for 3-in-10 Year Test Interval - Sensitivity \***

Class	Description	Frequency (per Rx-yr)	Person-Rem Person-Rem	Person-Rem per year
1	No Containment Failure	2.71E-05	5.00E+02	1.35E-02
2	Large Cont. Isolation Failure (failure to close)	1.26E-08	5.46E+05	6.88E-03
3a	Small Isolation Failure (Type A test)	2.96E-06	5.00E+03	1.48E-02
3b	Large Isolation Failure (Type A test)	9.72E-07	1.75E+04	1.70E-02
6	Other Isolation Failures (dependent Failures)	0.00E+00	1.75E+04	0.00E+00
7a	Severe Accident Phenomena (Early-Large)	1.05E-09	6.15E+06	6.46E-03
7b	Severe Accident Phenomena (Early-Small, Late-Large) **	2.97E-06	3.41E+06	1.01E+01
7c	Severe Accident Phenomena (Late-Large)	1.23E-05	3.34E+05	4.11E+00
8	Containment Bypassed (SGTR)	3.74E-08	5.46E+05	2.04E-02
CDFTotal		4.63E-05		<b>14.3150</b>

Class 1 frequency = IntactCDF - Class 3a - Class 3b - Class 6 =	2.71E-05
Class 2 frequency = <i>Freq[S6]</i> =	1.26E-08
Class 3a frequency = 0.064 * CDFTotal =	2.96E-06
Class 3b frequency = 0.021 * CDFTotal =	9.72E-07
Class 6 frequency = n/a	0.00E+00
Class 7a frequency = <i>Freq[S1]</i> =	1.05E-09
Class 7b frequency = <i>Freq[S2]</i> =	2.97E-06
Class 7c frequency = <i>Freq[S3]</i> =	1.23E-05
Class 8 frequency = <i>Freq[S7]</i> =	3.74E-08

Class 1 dose = <i>Dose[S5]</i> =	5.00E+02
Class 2 dose = <i>Dose[S6]</i> =	5.46E+05
Class 3a dose = 10La x Class 1 dose = 10 x <i>Dose[S5]</i> =	5.00E+03
Class 3b dose = 35La x Class 1 dose = 35 x <i>Dose[S5]</i> =	1.75E+04
Class 6 dose = 35La x Class 1 dose = 35 x <i>Dose[S5]</i> =	1.75E+04
Class 7a dose = <i>Dose[S1]</i> =	6.15E+06
Class 7b dose = <i>Dose[S2]</i> =	3.41E+06
Class 7c dose = <i>Dose[S3]</i> =	3.34E+05
Class 8 dose = <i>Dose[S7]</i> =	5.46E+05

CCFP = 1 - (Class 1 + Class 3a) / CDFTotal = **0.3515**

\* Frequency and Dose values come from the release categories in Table 1. The italic terms indicate the link to Table 1 release categories.

\*\* Class 7b = Release category [S2] -- this release category includes both severe accident phenomena and containment isolation failure that result in a small containment opening, too small to prevent long term pressurization and failure.

**TABLE A-2 Mean Consequence Measures for 10 Year Test Interval - Sensitivity**

Class	Description	Frequency (per Rx-yr)	Person-Rem	Person-Rem per year
1	No Containment Failure	2.67E-05	5.00E+02	1.33E-02
2	Large Cont. Isolation Failure (failure to close)	1.26E-08	5.46E+05	6.88E-03
3a	Small Isolation Failure (Type A test)	3.26E-06	5.00E+03	1.63E-02
3b	Large Isolation Failure (Type A test)	1.07E-06	1.75E+04	1.87E-02
6	Other Isolation Failures (dependent Failures)	0.00E+00	1.75E+04	0.00E+00
7a	Severe Accident Phenomena (Early-Large)	1.05E-09	6.15E+06	6.46E-03
7b	Severe Accident Phenomena (Early-Small, Late-Large)	2.97E-06	3.41E+06	1.01E+01
7c	Severe Accident Phenomena (Late-Large)	1.23E-05	3.34E+05	4.11E+00
8	Containment Bypassed (SGTR)	3.74E-08	5.46E+05	2.04E-02
<b>CDFTotal</b>		<b>4.63E-05</b>		<b>14.3180</b>

Class 1 frequency = IntactCDF-Class3a-Class3b-Class6 = 2.67E-05  
 Class 2 frequency = 1.26E-08  
 Class 3a frequency = 0.064\*CDFTotal\*1.1 = 3.26E-06  
 Class 3b frequency = 0.021\*CDFTotal\*1.1 = 1.07E-06  
 Class 6 frequency = 0.00E+00  
 Class 7a frequency = 1.05E-09  
 Class 7b frequency = 2.97E-06  
 Class 7c frequency = 1.23E-05  
 Class 8 frequency = 3.74E-08

CCFP = 1 - (Class 1 + Class 3a)/CDFTotal = **0.3536**

**TABLE A-3 Mean Consequence Measures for 15 Year Test Interval - Sensitivity**

Class	Description	Frequency (per Rx-yr)	Person-Rem	Person-Rem per year
1	No Containment Failure	2.65E-05	5.00E+02	1.32E-02
2	Large Cont. Isolation Failure (failure to close)	1.26E-08	5.46E+05	6.88E-03
3a	Small Isolation Failure (Type A test)	3.41E-06	5.00E+03	1.70E-02
3b	Large Isolation Failure (Type A test)	1.12E-06	1.75E+04	1.96E-02
6	Other Isolation Failures (dependent Failures)	0.00E+00	1.75E+04	0.00E+00
7a	Severe Accident Phenomena (Early-Large)	1.05E-09	6.15E+06	6.46E-03
7b	Severe Accident Phenomena (Early-Small, Late-Large)	2.97E-06	3.41E+06	1.01E+01
7c	Severe Accident Phenomena (Late-Large)	1.23E-05	3.34E+05	4.11E+00
8	Containment Bypassed (SGTR)	3.74E-08	5.46E+05	2.04E-02
CDFTotal		4.63E-05		14.3195

Class 1 frequency = IntactCDF-Class3a-Class3b-Class6 = 2.65E-05  
 Class 2 frequency = 1.26E-08  
 Class 3a frequency = 0.064\*CDFTotal\*1.15 3.41E-06  
 Class 3b frequency = 0.021\*CDFTotal\*1.15 1.12E-06  
 Class 6 frequency = 0.00E+00  
 Class 7a frequency = 1.05E-09  
 Class 7b frequency = 2.97E-06  
 Class 7c frequency = 1.23E-05  
 Class 8 frequency = 3.74E-08

CCFP = 1 - (Class 1 + Class 3a)/CDFTotal = 0.3546