



**North  
Atlantic**

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The Northeast Utilities System

April 8, 2002

Docket No. 50-443

NYN-02038

United States Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555-001

Seabrook Station  
Response to Request for Additional Information Regarding  
License Amendment Request 01-07,  
“Changes to Certain Technical Specifications  
Associated with Response Time Testing”

References:

- 1) North Atlantic letter to NRC (NYN 02035) Response to Request for Additional Information Regarding License Amendment Request 01-07, “Changes to Certain Technical Specifications Associated with Response Time Testing,” dated March 25, 2002.
- 2) North Atlantic letter to NRC (NYN-01105) License Amendment Request (LAR) 01-07, “Changes to Certain Technical Specifications Associated with Response Time Testing,” dated December 21, 2001.

Based upon discussions that occurred during a telephone conference held on April 3, 2002, with regard to LAR 01-07, North Atlantic Energy Service Corporation (North Atlantic) is providing the following clarifications and corrections.

The NRC SER associated with WCAP-13632-P-A requires North Atlantic to provide a response time for those Rosemount gage and differential pressure transmitters that did not have published response times. In the RAI response letter, dated March 25, 2002, North Atlantic stated that plant historical data was used as the basis for the LAR published response times. Additionally, North Atlantic stated that the conclusions from the historical data review were further verified against Rosemount publications for consistency.

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As a result of further review, North Atlantic will use the published Rosemount response times as the basis for the LAR response times noted on Tables I.B-1 and I.B-2 for these transmitters. This revised basis does not change any of the response time values previously documented in LAR 01-07. The Rosemount response times may be found in the following manufacturer's publications, which were previously provided to the NRC by letter dated March 25, 2002:

- Rosemount Publication 00813-0100-4302, R/AB, 1999, Model 1153DB5 & GB9 Specification Section: Response Time for Range Code 5 & 9 = 0.200 seconds.
- Rosemount Publication 00813-0100-4514, R/AA, 1999, Model 1154GP9 & DP4 Specification Section: Response Time for Range Code 9 = 0.200 seconds and for Range Code 4 = 0.500 seconds.

In addition, North Atlantic's RAI response letter, dated March 25, 2002 contained an update to Table I.B-1 and I.B-2 in LAR 01-07. In the revised tables, sensor types were identified in response to RAI question #4. Table I.B-2 listed one sensor for Steam Line Hi Negative Rate when in fact three different types of sensors are installed for this ESFAS Function. In addition to this clarification, the 0.400 second sensor response time as originally listed should have been listed as 0.200 seconds. A revision to this table is attached to this letter.

The 7300 Process Cabinet string times listed on Tables I.B-1 and I.B-2 follow the methodology of WCAP-14036 as described in section 8.0 "Program Methodology." The response times listed in the Tables of the North Atlantic LAR reflect generic string response times as listed in Table 8-1 of WCAP-14036 and SER Table 1. In developing the listed response times for Westinghouse 7300 Process Cabinet strings, a time allocation was not provided for lead/lag cards. As described in WCAP-14036, Section 4.0, the dynamic response of lead-lag functions is tested (i.e., calibrated) as part of the periodic channel surveillance calibration and, therefore, the card response time does not have to be verified independently by other tests. To clearly identify this position, North Atlantic has added a note to Tables I.B-1 and I.B-2. The note is applicable to the listing of response times for the 7300 Process Cabinet String and states "Listed response times do not provide an allowance for lead/lag cards when installed in 7300 Process Cabinet strings."

Basing response time testing on the values contained in the aforementioned WCAPs does not change the conclusions of the original LAR 01-07 submittal, that the proposed change does not involve a significant hazard consideration pursuant to 10CFR50.92, and still meets the criteria of 10CFR51.22(c)(9) for a categorical exclusion from the requirements for an Environmental Impact Statement.

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

Very truly yours,

NORTH ATLANTIC ENERGY SERVICE CORP.

A handwritten signature in black ink, appearing to read "Ted C. Feigenbaum", is written over a horizontal line.

Ted C. Feigenbaum  
Executive Vice President and  
Chief Nuclear Officer

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

**ATTACHMENT 1 TO NYN-02038**

**TABLE I.B-1**

**Reactor Trip System (RTS) Response Time Allocations**

<u>RTS Function</u>	<u>Sensor</u>		<u>7300 Process Cabinet</u>		<u>SSPS Input Relay / Logic</u>
	Type	(Sec.)	String	(Sec.)	(Note 1) (Sec.)
NIS PR High & Low SP	(Note 2)	(Note 2)	NIS cabinet (Note 3)	0.065	0.020 / 0.01
NIS PR High Positive Rate	(Note 2)	(Note 2)	NIS cabinet (Note 4)	0.300	0.020 / 0.01
NIS PR High Negative Rate	(Note 2)	(Note 2)	NIS cabinet (Note 3)	0.200	0.020 / 0.01
OTΔT, OPΔT / T <sub>avg</sub>	(Note 5)	(Note 5)	NRA+NSA+ NSA+NSA+ NAL	0.400	0.020 / 0.01
Pressurizer Pressure Low & High	Rosemount 1154 GP9	0.200	NLP+NAL	0.100	0.020 / 0.01
Reactor Coolant Flow Low	Westinghouse Veritrak 76 DP1 & Tobar 32 DP2	0.400	NLP+NAL	0.100	0.020 / 0.01
S/G Level Low-Low	Rosemount 1154 DP4	0.500	NLP+NAL	0.100	0.020 / 0.01
RCP Undervoltage	(Note 6)	(Note 6)	---		---
RCP Underfrequency	(Note 6)	(Note 6)	---		---

**Notes:**

1. For the Input Relays, the response time allocation is 0.020 sec. for normally energized relays.
2. Nuclear Instrumentation detectors are not response time tested.
3. Westinghouse Nuclear Instrumentation Cabinet time allocation from WCAP-14036-P-A, Revision 1 (Reference 2).
4. Westinghouse Nuclear Instrumentation Cabinet time allocation from Seabrook Station Plant Data.
5. Periodic response time testing of the Resistance Temperature Detectors (RTDs) will continue.
6. Periodic response time testing of these functions will continue.
7. Listed response times do not provide an allowance for lead/lag cards when installed in 7300 Process Cabinet strings.

**TABLE I.B-2**

**Engineered Safety Features Actuation System (ESFAS) Response Time Allocations**

<u>ESFAS Function</u>	<u>Sensor</u>		<u>7300 Process Cabinet</u>	<u>SSPS Input Relay / Logic</u>
	<u>Type</u>	<u>(Sec.)</u>	<u>(Note 3)</u> <u>String</u> <u>(Sec.)</u>	<u>(Note 1)</u> <u>(Sec.)</u>
Containment Pressure HI-1	Westinghouse Barton 752	0.400	NLP & NAL 0.100	0.020 / 0.01
Pressurizer Pressure Low	Rosemount 1154 GP9	0.200	NLP & NAL 0.100	0.020 / 0.01
Steam Pressure Low	Westinghouse Veritrak 76 PG1, Tobar 32 PA2, Rosemount 1153 GB9	0.200	NLP & NAL 0.100	0.020 / 0.01
Containment Pressure HI-3	Westinghouse Barton 752	0.400	NLP & NAL 0.100	0.026 / 0.01
Containment Pressure HI-2	Westinghouse Barton 752	0.400	NLP & NAL 0.100	0.020 / 0.01
Steam Line Hi Negative Rate	Westinghouse Veritrak 76 PG1, Tobar 32 PA2, Rosemount 1153 GB9	0.200	NLP & NAL 0.100	0.020 / 0.01
S/G Level HI-HI	Rosemount 1154 DP4	0.500	NLP & NAL 0.100	0.020 / 0.01
S/G Level Low-Low	Rosemount 1154 DP4	0.500	NLP & NAL 0.100	0.020 / 0.01
Emergency Feedwater Flow	Rosemount 1153 DB5	0.200	(Note 2)	---
RWST Level Low-Low	Westinghouse Veritrak 76 DP1	0.400	NLP & NAL 0.100	0.026 / 0.01
LOP Diesel Generator Start	(Note 2)	(Note 2)	---	---
CBA Actuation on Control Room HI Radiation	(Note 2)	(Note 2)	---	---

**Notes:**

1. For the Input Relays, the response time allocation is 0.020 sec. for normally energized relays, and 0.026 sec. for normally de-energized relays.
2. Periodic response time testing of these functions will continue.
3. Listed response times do not provide an allowance for lead/lag cards when installed in 7300 Process Cabinet strings.