

RS-04-131

September 2, 2004

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

LaSalle County Station, Units 1 and 2  
Facility Operating License Nos. NPF-11 and NPF-18  
NRC Docket Nos. 50-373 and 50-374

Subject: Supplemental Information Supporting the Request for Technical Specification Changes to Eliminate Selected Response Time Testing Requirements

- References:
- (1) Letter from K. A. Ainger (Exelon Generation Company, LLC) to U. S. NRC, "Request for Technical Specification Changes to Eliminate Selected Response Time Testing Requirements," dated March 12, 2004
  - (2) Letter from K. A. Ainger (Exelon Generation Company, LLC) to U. S. NRC, "Additional Information Supporting the Request for Technical Specification Changes to Eliminate Selected Response Time Testing Requirements," dated June 16, 2004

In Reference 1, Exelon Generation Company, LLC (EGC) submitted a request for change to Appendix A, Technical Specifications (TS), of Facility Operating License Nos. NPF-11 and NPF-18 for LaSalle County Station. Specifically, the proposed changes would modify the TS to eliminate selected response time testing (RTT) requirements associated with Reactor Protection System instrumentation and Primary Containment Isolation instrumentation for Main Steam Line Isolation functions. The proposed changes are consistent with the approved BWR Owners' Group Licensing Topical Report.

The NRC subsequently provided a request for additional information in support of their review of the Reference 1 amendment request. EGC provided the requested information in Reference 2.

In a conference call between EGC and the NRC on June 21, 2004, the NRC requested additional information be provided to supplement the responses provided in Reference 2. The attachment to this letter provides the requested information.

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Should you have any questions related to this information, please contact Mr. Timothy A. Byam at (630) 657-2804.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 2<sup>nd</sup> day of September 2004.

Respectfully,

A handwritten signature in black ink that reads "Patrick R. Simpson". The signature is written in a cursive style with a large initial "P" and "S".

Patrick R. Simpson  
Manager – Licensing  
Exelon Generation Company, LLC

Attachment: Supplemental Information Supporting the Request for Technical  
Specification Changes to Eliminate Selected Response Time Testing  
Requirements

## ATTACHMENT

### Supplemental Information Supporting the Request for Technical Specification Changes to Eliminate Selected Response Time Testing Requirements

#### Question 1

In Reference 1 to this attachment, the response to Question 1 did not provide the range code for each sensor type evaluated in Reference 2 to this attachment. Provide the range code for each sensor type evaluated.

#### Response 1

There were two sensor types evaluated as part of the subject amendment request. The SOR 9N6-B45-NX-C1A-JJTTX6 sensor does not have a range code. The other sensor type, Rosemount 1153DB Series, has a range code of 5.

#### Question 2

In Reference 1 to this attachment, Question 2 requested an explanation of how the bounding response time was determined for the recorded historical test data for each loop type. Question 3 requested the historical test data for each sensor in each loop type be provided. The NRC stated that the basis for the maximum bounding response time was provided in Reference 1 to this attachment however, the actual bounding response time was not provided. The NRC indicated that the amendment request assumes a representative response time but did not do a statistical analysis of the data. The NRC requested that Exelon Generation Company, LLC (EGC) provide the historical test data and statistical analysis of the data for each loop type evaluated.

#### Response 2

EGC has collected and evaluated the available historical response time testing data for the sensor types used for the three loops evaluated in Reference 2 to this attachment. The historical data was used to compute an average response time value and a standard deviation of that data for the B21-N015 and B21-N023 Series (i.e., SOR Model 9N6-B45-NX-C1A-JJTTX6) differential pressure switches and the B21-N402 Series (i.e., Rosemount 1153 Series Model 1153DB5PB) differential pressure transmitters. Once the average and standard deviation values were computed for each sensor type, then a bounding response time value was computed. The bounding response time was calculated by adding the average response time to an amount of variation that would provide a 95% probability with a 95% confidence (i.e., 95/95 value) that future response time data would be less than or equal to this bounding response time. To calculate the bounding response time value, the 95/95 value from Table 18.4 of Reference 3 to this attachment was used. The sensor with the fewest number of historical data points (i.e., fourteen data points) was the B21-N023 series of data. From the Reference 3 table, the 95/95 value was 3.01 standard deviations.

When the bounding response time value was computed it was compared to the maximum response time value allowed in the instrument loop's respective Reference evaluation in Reference 4 to this attachment. In all cases, the bounding response time

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value for the 95/95 condition was less than the previously evaluated value provided in Reference 2 to this attachment.

This evaluation has confirmed that the statistically averaged response time for the instrument sensors in each loop evaluated, is less than the maximum acceptable value defined in the BWR Owners' Group Licensing Topical Report (Reference 4 to this attachment). The results of the evaluation, including the historical data used to determine the average response time and standard deviation for each loop type sensor, are provided in the attached tables. This evaluation supports the conclusions of Reference 2 to this attachment that the response time testing for the specified instrument loops can be eliminated in accordance with the guidance in Reference 4 to this attachment.

#### References

1. Letter from K. A. Ainger (Exelon Generation Company, LLC) to the U. S. NRC, "Additional Information Supporting the request for Technical Specification Changes to Eliminate Selected Response Time Testing Requirements," dated June 16, 2004
2. Letter from K. A. Ainger (Exelon Generation Company, LLC) to the U. S. NRC, "Request for Technical Specification Changes to Eliminate Selected Response Time Testing Requirements," dated March 12, 2004
3. EPRI Report TR-103335, "Guidelines for Instrument Calibration Extension/Reduction Statistical Analysis of Instrument Calibration Data," Revision 1, dated October 1998
4. BWR Owners' group Licensing Topical Report, "System Analyses for the Elimination of Selected Response Time Testing Requirements," NEDO-32291-A, dated October 1995

## ATTACHMENT

Supplemental Information Supporting the Request for Technical Specification Changes  
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TABLE 1  
Historical Data Evaluation for  
Loop Type E Differential Pressure Transmitters  
Rosemount Model 1153DB5PB

Date	1B21- N402A (msec)	1B21- N402B (msec)	1B21- N402C (msec)	1B21- N402D (msec)	2B21- N402A (msec)	2B21- N402B (msec)	2B21- N402C (msec)	2B21- N402D (msec)
05/27/1988	80	35	30	40				
03/10/1991		75						
04/06/1991			52.5	42.5				
01/25/1992					160	160		
10/27/1992	130	270						
01/08/1993	170							
09/21/1993							130	180
03/03/1995					110	100		
02/09/1996	100	110						
Average Response Time (msec)	109.72		Maximum Bounding Response Time (msec)		756			
Standard Deviation	62.78		Bounding Response Time (msec)		298.70			

**ATTACHMENT**

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TABLE 2  
Historical Data Evaluation for  
Loop Type K Differential Pressure Switches  
SOR Model 9N6-B45-NX-C1A-JJTTX6

Date	1B21- N023AA (msec)	1B21- N023BA (msec)	1B21- N023C (msec)	1B21- N023D (msec)	2B21- N023AA (msec)	2B21- N023BA (msec)	2B21- N023C (msec)	2B21- N023D (msec)
04/01/1991	20	40	40	15				
02/06/1992					130	220		
11/13/1992	170	100						
03/21/1995					77.5	102.5		
03/29/1995					225	240		
10/29/1996							305	255
Average Response Time (msec)	138.57		Maximum Bounding Response Time (msec)		465			
Standard Deviation	96.87		Bounding Response Time (msec)		430.14			

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TABLE 3  
Historical Data Evaluation for  
Loop Type J Differential Pressure Switches  
SOR Model 9N6-B45-NX-C1A-JJTTX6

Date	1B21- N015A (msec)	1B21- N015B (msec)	1B21- N015C (msec)	1B21- N015D (msec)	2B21- N015A (msec)	2B21- N015B (msec)	2B21- N015C (msec)	2B21- N015D (msec)
10/22/1988					520	970		
03/17/1990							640	40
02/19/1991	220	200	300	120				
01/06/1992	1120	560						
11/26/1992	435	240						
02/27/1995					240	970		
03/15/1995						1385		
02/13/1996	295	680						
10/04/1996							335	1345
Average Response Time (msec)	558.68		Maximum Bounding Response Time (msec)		1880			
Standard Deviation	414.13		Bounding Response Time (msec)		1805.22			