

November 19, 2004

Mr. Christopher M. Crane, President
and Chief Nuclear Officer
Exelon Generation Company, LLC
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2, ISSUANCE OF AMENDMENTS
RE: RESPONSE TIME TESTING REQUIREMENTS (TAC NOS. MC2354 AND
MC2355)

Dear Mr. Crane:

The U.S. Nuclear Regulatory Commission (NRC) has issued the enclosed Amendment No. 169 to Facility Operating License No. NPF-11 and Amendment No. 155 to Facility Operating License No. NPF-18 for the LaSalle County Station, Units 1 and 2, respectively. The amendments are in response to your application dated March 12, 2004, and supplemented by letters dated June 16 and September 2, 2004.

The amendments modify the LaSalle Technical Specifications (TS) to eliminate selected response time testing requirements associated with Reactor Protection System instrumentation and Primary Containment Isolation instrumentation for Main Steam Line Isolation functions. Specifically, the changes revise the response time testing requirements for TS Section 3.3.1.1, "Reactor Protection System (RPS) Instrumentation," Reactor Vessel Steam Dome Pressure - High function and TS Section 3.3.6.1, "Primary Containment Isolation Instrumentation," Reactor Vessel Water Level - Low Low Low, Level 1 and Main Steam Line Pressure - Low functions.

A copy of the Safety Evaluation is also enclosed. The Notice of Issuance will be included in the NRC's biweekly *Federal Register* notice.

Sincerely,

/RA/

Douglas V. Pickett, Senior Project Manager, Section 2
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos.: 50-373 and 50-374

Enclosures: 1. Amendment No. 169 to NPF-11
2. Amendment No. 155 to NPF-18
3. Safety Evaluation

cc w/encls: See next page

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EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-373

LASALLE COUNTY STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No.169
License No. NPF-11

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment filed by the Exelon Generation Company, LLC (the licensee), dated March 12, 2004, and supplemented by letters dated June 16 and September 2, 2004, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the enclosure to this license amendment and paragraph 2.C.(2) of the Facility Operating License No. NPF-11 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 169, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Gene Y. Suh, Chief, Section 2
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: November 19, 2004

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-374

LASALLE COUNTY STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 155
License No. NPF-18

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment filed by the Exelon Generation Company, LLC (the licensee), dated March 12, 2004, and supplemented by letters dated June 16 and September 2, 2004, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the enclosure to this license amendment and paragraph 2.C.(2) of the Facility Operating License No. NPF-18 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 155, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Gene Y. Suh, Chief, Section 2
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: November 19, 2004

ATTACHMENT TO LICENSE AMENDMENT NOS. 169 AND 155

FACILITY OPERATING LICENSE NOS. NPF-11 AND NPF-18

DOCKET NOS. 50-373 AND 50-374

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by amendment number and contain marginal lines indicating the area of change.

Remove Pages

3.3.1.1-8
3.3.6.1-6

Insert Pages

3.3.1.1-8
3.3.6.1-6

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 169 TO FACILITY OPERATING LICENSE NO. NPF-11
AND AMENDMENT NO. 155 TO FACILITY OPERATING LICENSE NO. NPF-18
EXELON GENERATION COMPANY, LLC
LASALLE COUNTY STATION, UNITS 1 AND 2
DOCKET NOS. 50-373 AND 50-374

1.0 INTRODUCTION

By application dated March 12, 2004 (ADAMS Accession # ML040790358), Exelon Generation Company, LLC (the licensee) requested changes to the Technical Specifications (TS) for the LaSalle County Station, Units 1 & 2. Additional information was provided by letters dated June 16, 2004 (ADAMS Accession # ML041690155) and September 2, 2004 (ADAMS Accession # ML042460535). (Note: Public access to ADAMS has been temporarily suspended so that security reviews of publicly available documents may be performed and potentially sensitive information removed. Please check the NRC Web site for updates on the resumption of ADAMS access.)

The supplements dated June 16 and September 2, 2004, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on April 13, 2004 (69 FR 19569).

The proposed changes would modify the TS to eliminate selected response time testing (RTT) requirements associated with the Reactor Protection System and Primary Containment Isolation instrumentation. Specifically, the licensee proposes the following TS changes:

- TS Section 3.3.1.1, "Reactor Protection System (RPS) Instrumentation," Table 3.3.1.1-1 Function 3, "Reactor Vessel Steam Dome Pressure - High," specifies Surveillance Requirement (SR) 3.3.1.1.17 as applicable to this function. Function 3 would be revised to delete the applicability of SR 3.3.1.1.17.
- TS Section 3.3.6.1, "Primary Containment Isolation Instrumentation," Table 3.3.6.1-1 Function 1.a, "Reactor Vessel Water Level - Low Low Low, Level 1," specifies SR 3.3.6.1.6 as applicable to this function. Function 1.a would be revised to delete the applicability of SR 3.3.6.1.6.

- TS Section 3.3.6.1, Table 3.3.6.1-1 Function 1.b, "Main Steam Line Pressure - Low," specifies SR 3.3.6.1.6 as applicable to this function. Function 1.b would be revised to delete the applicability of SR 3.3.6.1.6.

2.0 REGULATORY EVALUATION

Current standard technical specifications require nuclear power plants to periodically perform RTT for instrument channels in the RPS, the Emergency Core Cooling System (ECCS), and the Isolation Actuation System (IAS). The intent of these tests is to ensure that changes in response time of instrumentation beyond the limits assumed in safety analyses are detected and combined with instrument calibrations, to ensure that the instrumentation is operating correctly.

IEEE Standard 338-1977, which is endorsed in Regulatory Guide 1.1118, Rev. 2, defines a basis for eliminating selected RTT. Section 6.3.4 states, in part:

"Response time testing of all safety-related equipment, per se, is not required if, in lieu of response time testing, the response time of the safety system equipment is verified by functional testing, calibration check, or other tests, or both. This is acceptable if it can be demonstrated that changes in response time beyond acceptable limits are accompanied by changes in performance characteristics which are detectable during routine periodic tests."

In January 1994, the Boiling Water Reactor Owners Group (BWROG) under the auspices of the General Electric Company, issued licensing Topical Report NEDO-32291, "System Analyses for Elimination of Selected Response Time Testing Requirements." In NEDO-32291, the BWROG proposed eliminating the requirements for performance of RTT of selected instrumentation in the RPS, ECCS, and IAS. The staff approved the topical report in a safety evaluation dated December 28, 1994 (ADAMS Public Legacy Library Accession No. 9501060219).

On April 16, 1996, Commonwealth Edison Company, the licensee for LaSalle County Station, Units 1 & 2, submitted a license amendment request to take advantage of NEDO-32291. This change eliminated the requirement to perform response time testing for selected sensors and specified loop instrumentation for RPS, IAS, and ECCS. This amendment request was approved on August 14, 1996 (ADAMS Accession No. ML021130157).

On November 4, 1997, the BWROG submitted Supplement 1 to Topical Report NEDO-32291 to expand the scope of RTT elimination. In Supplement 1, the BWROG requested the elimination of RTT for six groups of components in instrument loops with shorter response time requirements. These loops have response time requirements between 300 and 5000 msec. The requested elimination was based upon a failure modes and effects analysis (FMEA) performed on one selected component within each group and a similarity analysis showing the FMEA was bounding on all components within the group. The FMEA showed that any credible failure of any component would either be bounded by a bounding response time or would be detected by other surveillances. The U.S. Nuclear Regulatory Commission staff approved Supplement 1 in a safety evaluation dated June 11, 1999.

3.0 TECHNICAL EVALUATION

3.1 Technical Specification Changes

The proposed TS changes would eliminate the requirement to perform response time testing for the RPS Instrumentation function Reactor Pressure Steam Dome Pressure-High and the Primary Containment Isolation Instrumentation functions Reactor Vessel Water Level - Low Low Low, Level 1 and Main Steam Line Pressure - Low. This elimination would include the logic and trip units and the output relays. The RTT functions and the components which will no longer be tested were addressed in NEDO 32291, Supplement 1, and were approved in the staff's safety evaluation for that topical report.

TS Section 3.3.1.1, "Reactor Protection System (RPS) Instrumentation"

The application proposes to remove the reference to SR 3.3.1.1.17 from Table 3.3.1.1-1, Function 3, "Reactor Vessel Steam Dome Pressure - High," and therefore eliminate the requirement to perform response time testing for this function.

TS Table 3.3.1.1-1 Function 3, "Reactor Vessel Steam Dome Pressure - High," currently states:

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
3. Reactor Vessel Steam Dome Pressure - High	1, 2	2	G	SR 3.3.1.1.9 SR 3.3.1.1.10 SR 3.3.1.1.15 SR 3.3.1.1.17	# 1059.0 psig

The licensee proposes to revise this function to state:

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
3. Reactor Vessel Steam Dome Pressure - High	1, 2	2	G	SR 3.3.1.1.9 SR 3.3.1.1.10 SR 3.3.1.1.15	# 1059.0 psig

TS Section 3.3.6.1, "Primary Containment Isolation Instrumentation,"

The application proposes to remove references to SR 3.3.6.1.6 from Table 3.3.6.1, Function 1.a, "Reactor Vessel Water Level - Low Low Low, Level 1" and Function 1.b, "Main Steam Line Pressure - Low," and therefore eliminate the requirement to perform response time testing for these functions.

TS Table 3.3.6.1-1 Function 1.a, “Reactor Vessel Water Level - Low Low Low, Level 1,” and Function 1.b, “Main Steam Line Pressure - Low,” currently state:

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1 Main Steam Line Isolation					
A. Reactor Vessel Water Level - Low Low Low, Level 1	1, 2, 3	2	D	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5 SR 3.3.6.1.6	\$-137.0 Inches
B. Main Steam Line Pressure - Low	1	2	E	SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5 SR 3.3.6.1.6	\$ 826.5 psig

The licensee proposes to revise these functions to state:

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1 Main Steam Line Isolation					
A. Reactor Vessel Water Level - Low Low Low, Level 1	1, 2, 3	2	D	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	\$-137.0 Inches
B. Main Steam Line Pressure - Low	1	2	E	SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5	\$ 826.5 psig

The TS Bases sections will also change. The second paragraph of TS Bases SR 3.3.1.1.17 will be modified to reflect this change. The second paragraph currently states:

“RPS RESPONSE TIME may be verified by actual response time measurements in any series of sequential, overlapping, or total channel measurement. However, the sensors for Functions 3 and 4 are allowed to be excluded from specific RPS RESPONSE TIME measurement if the conditions of Reference 12 are satisfied. If these conditions are satisfied, sensor response time may be allocated based on either assumed design sensor response time or the manufacturer’s stated design response time. When the requirements of Reference 12 are not satisfied, sensor response time must be measured. Also, regardless of whether or not the sensor response time is measured, the response time for the remaining portion of the channel, including the trip unit and relay logic, is required to be measured. In addition, the response time of the limit switches for Function 8 may be assumed to be the design limit switch response time and therefore, are excluded from the RPS RESPONSE TIME testing. This is allowed, as documented in Reference 13, since the actual measurement of the limit switch

response time is not practicable as this test is done during the refueling outage when the turbine stop valves are fully closed, and thus the limit switch in the RPS circuitry is open. The design limit switch response time is 10 ms.”

The licensee proposes to modify this paragraph to state:

“RPS RESPONSE TIME may be verified by actual response time measurements in any series of sequential, overlapping, or total channel measurement. However, the sensor for Function 4 is allowed to be excluded from specific RPS RESPONSE TIME measurement if the conditions of Reference 12 are satisfied. If these conditions are satisfied, sensor response time may be allocated based on either assumed design sensor response time or the manufacturer’s stated design response time. When the requirements of Reference 12 are not satisfied, sensor response time must be measured. Also, regardless of whether or not the sensor response time is measured, the response time for the remaining portion of the channel, including the trip unit and relay logic, is required to be measured. The sensor and relay/logic components for Function 3 are assumed to operate at the design response time and therefore, are excluded from specific RPS RESPONSE TIME measurement. This allowance is supported by References 12 and 14, which determined that significant degradation of the channel response time can be detected during performance of other Technical Specification surveillance requirements. In addition, the response time of the limit switches for Function 8 may be assumed to be the design limit switch response time and therefore, are excluded from the RPS RESPONSE TIME testing. This is allowed, as documented in Reference 13, since the actual measurement of the limit switch response time is not practicable as this test is done during the refueling outage when the turbine stop valves are fully closed, and thus the limit switch in the RPS circuitry is open. The design limit switch response time is 10 ms.”

The licensee proposes to modify TS Basis 3.3.1.1 References by adding reference 14, which will state:

“14. NEDO-32291-A, Supplement 1, ‘System Analyses for the Elimination of Selected Response Time Testing Requirements,’ October 1999.”

The licensee proposes to revise the third paragraph of TS Bases SR 3.3.6.1.6. The paragraph currently states:

“ISOLATION SYSTEM RESPONSE TIME may be verified by actual response time measurements in any series of sequential, overlapping, or total channel measurements. However, the sensors for Functions 1.a, 1.b, and 1.c are allowed to be excluded from specific ISOLATION SYSTEM RESPONSE TIME measurement if the conditions of Reference 12 are satisfied. If these conditions are satisfied, sensor response time may be allocated based on either assumed design sensor response time or the manufacturer’s stated design response time. When the requirements of Reference 12 are not satisfied, sensor response time must be measured. Also, regardless of whether or not the sensor response time is measured, the response time of the remaining portion of the channel, including the trip unit and relay logic, is required to be measured.”

The licensee proposes to revise this paragraph to state:

“ISOLATION SYSTEM RESPONSE TIME may be verified by actual response time measurements in any series of sequential, overlapping, or total channel measurements. However, the sensor for Function 1.c is allowed to be excluded from specific ISOLATION SYSTEM RESPONSE TIME measurement if the conditions of Reference 12 are satisfied. If these conditions are satisfied, sensor response time may be allocated based on either assumed design sensor response time or the manufacturer's stated design response time. When the requirements of Reference 12 are not satisfied, sensor response time must be measured. Also, regardless of whether or not the sensor response time is measured, the response time of the remaining portion of the channel, including the trip unit and relay logic, is required to be measured. The sensor and relay/logic components for Functions 1.a and 1.b are assumed to operate at the design response time and therefore, are excluded from specific RPS RESPONSE TIME measurement. This allowance is supported by References 12 and 13, which determined that significant degradation of the channel response time can be detected during performance of other Technical Specification surveillance requirements”.

The licensee proposes to revise TS Bases 3.3.6.1 References by adding reference 13, which will state:

“13. NEDO-32291-A, Supplement 1, ‘System Analyses for the Elimination of Selected Response Time Testing Requirements,’ October 1999.”

The staff has reviewed these TS Bases changes, and concurs that these are the appropriate changes to the LaSalle Units 1 and 2 TS to eliminate the RTT requirement for the functions discussed.

3.2 Bounding Response Times

In Supplement 1 to NEDO-32291, the BWROG requested elimination of RTT for six groups of components. The FMEA for these components has shown that the degree to which a component response time can degrade and still not be identified by other surveillance tests is limited. The limit to which response time of a component can degrade without detection by other routine surveillances or calibration was called the “bounding response time (BRT)” of that component. Response time degradation beyond the BRT will be detected by routine surveillances or calibration. The licensee, in their request, has four components, the GE 12HFA151A9 series relay, the Agastat EGPB series relay, the Rosemount 710DU series trip unit, and the GE series CR105 scram contactor, for which they have requested RTT elimination. The instrument loops and the bounding response times for the four components are shown in the tables in Attachment 1 of the application, and are provided below:

Reactor Protection System, Reactor Vessel
Steam Dome Pressure - High

Loop type K

Sensor BRT (msec)	Logic Relay (msec)	Output Contactor (msec)	Loop Logic BRT (msec)	Total Loop BRT (msec)	Required Response Time (msec)
465	GE Relay	GE CR305	85	550	550
	40	45			

Primary Containment Isolation Instrumentation
Reactor Vessel Water Level - Low Low Low, Level 1

Loop type E

Sensor BRT (msec)	Trip Unit (TU) (msec)	TU Output Relay (msec)	Logic Relay (msec)	Output Contactor (msec)	Loop Logic BRT (msec)	Total Loop BRT (msec)	Required Response Time (msec)
756	Rosemount 710DU TU	Agastat	GE HFA	GE HFA	244	1000	1000
	24	140	40	40			

Primary Containment Isolation Instrumentation
Main Steam Line Pressure - Low

Loop type J

Sensor BRT (msec)	Logic Relay (msec)	Auxiliary Relay (msec)	Output Contactor (msec)	Loop Logic BRT (msec)	Total Loop BRT (msec)	Required Response Time (msec)
1880	GE HFA	GE HFA	GE HFA	120	2000	2000
	40	40	40			

3.2.1 Sensor Bounding Response Times

The sensors for these trip functions have been previously approved in a staff safety evaluation dated August 14, 1996, approving Amendment No. 114 to Facility Operating License NPF-11 for the LaSalle County Station Unit 1, and Amendment No. 99 to Facility Operating License NPF-18 for the LaSalle County Station Unit 2. No BRT was approved in that license amendment and, therefore, the value for the BRT must be established. In their letter dated September 2, 2004, the licensee stated that they had collected and evaluated the available historical response time testing data for the sensor types used for the three loops. The BRT 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 this BRT. In all cases, the BRT value for the 95/95 condition was less than the BRT provided in the original license amendment application dated March 12, 2004.

When determining an allocated response time based upon historic test values, the staff requires licensees to use a 95/95 value, that is, a value chosen such that there is a 95%

confidence that 95% of all response time test values will be less than the allocated response time as defined in NUREG-1475. The staff verified that the BRT values are statistically valid by determination of the mean and 2 sigma standard deviation value of response time (value which represents 95% confidence level by definition). The staff then determined the one sided tolerance limit factor for a normal distribution for a 95/95% confidence level. This was done using guidance in "Applying Statistics", NUREG-1475, Table T-11b: One sided tolerance limit factor for a normal distribution.

The results of these calculations are as shown below:

Sensor	SOR 9N6-B45-NX-C1A-JJTTX6
Function	used in Loop Type K
Mean	Steam Dome Pressure - High
Standard Deviation	0.139 seconds
Sample Size	0.097 seconds
One sided tolerance limit factor (95/95 Multiplier IAW NUREG 1475)	14
One sided tolerance limit	3.614
LaSalle BRT value	0.392 seconds
	0.465 seconds
Sensor	Rosemount 1153 Range Code 5
Function	used in Loop Type E
Mean	Reactor Vessel Water Level - Low
Standard Deviation	Low Low, Level 1
Sample Size	0.110 seconds
One sided tolerance limit factor (95/95 Multiplier IAW NUREG 1475)	0.063 seconds
One sided tolerance limit	18
LaSalle BRT value	2.453
	0.264 seconds
	0.756 seconds
Sensor	SOR 9N6-B45-NX-C1A-JJTTX6
Function	used in Loop Type J
Mean	Main Steam Line Pressure - Low
Standard Deviation	0.559 seconds
Sample Size	0.414 seconds
One sided tolerance limit factor (95/95 Multiplier IAW NUREG 1475)	19
One sided tolerance limit	2.425
LaSalle BRT value	1.563 seconds
	1.880 seconds

In each case above, the one sided tolerance limit is lower than the BRT. Therefore, the BRT values are acceptable to the staff.

3.2.2 Component Bounding Response Times

The specific components included in this request for which RTT elimination has been requested, and the associated BRT, is shown below:

Component	BRT
GE Model 12HFA 151A9 Relay	40 msec
Agastat Model EGPB Relay	140 msec
Rosemount 710DU series trip unit	24 msec
GE Model CR105 Scram Contactor	45 msec

These values were previously approved in the staff safety evaluation for NEDO-32291-A Supplement 1, and are therefore acceptable.

For each of the above instrumentation loop types, the total BRT is no greater than the accident analysis required response time, and is therefore acceptable.

3.3 Verification of Component Specific Conditions

In approving NEDO-32291-A Supplement 1, the NRC staff stipulated that licensees must address specific conditions identified in the staff's safety evaluation for components for which RTT is no longer being required, to ensure that the bounding response time is valid. The four components for which the licensee has requested elimination of response time testing are: GE Model 12HFA 151A9 Relays, Agastat Model EGPB Relays, Rosemount 710DU Series Trip Units, and GE Model CR305 Magnetic Contactors.

3.3.1 GE Model 12HFA 151A9 Relay

For the GE Model 12HFA 151A9 relays, the approved bounding response time was determined to be 40 ms, based on the following requirement:

1. The HFA manufacturer's instructions are followed for setup and adjustment of the relay before initial operation and after any repair or maintenance.
2. Before installation, or after any maintenance or repair of the relays, the normally open contacts of the relays are confirmed to open in 20 msec or less after power is removed from the coil.
3. The relays are procured by the utility as "nuclear safety related", or are dedicated for nuclear-safety-related application under a utility dedication program.

In their amendment application, the licensee stated that:

1. The manufacturer's instructions for setup and adjustment of the relay will be proceduralized. These procedures will be performed before initial operation and after any repair or maintenance.

2. The calibration procedure will be revised to include a requirement for verification that the normally open contacts of the relays open in 20 msec or less after the power is removed from the coil. The procedure will be revised to include this verification before installation or after maintenance or repair of the relays.
3. The relays are procured as nuclear safety related.
4. These relays are used as normally open, energized in the untripped state, with power removed and contacts closed to trip.

The staff has reviewed the licensee's response and has determined that it satisfies the component specific requirement as shown in the staff's safety evaluation for NEDO-32291-A Supplement 1, and is, therefore, acceptable.

3.3.2 Agastat Model EGPB Relay

For the Agastat EGPB relays, the approved bounding response time was determined to be 140 ms, based on the following requirements:

1. Before installation, or after any maintenance or repair of the relays, the normally open contacts of the relays are confirmed to open in 70 msec or less after power is removed from the coil.
2. The relays are within their qualified life.
3. The relays are procured by the utility as "nuclear safety related", or are dedicated for nuclear-safety-related application under a utility dedication program.

In their amendment application, the licensee stated that:

1. The calibration procedures will be revised to include a step requiring a response time test of the relay to be performed before returning the relay to service after repair or maintenance. The normally open contacts will be confirmed to open in 70 msec or less after power is removed from the coil. The testing as specified here would be required "prior to return to service" rather than "prior to installation" as it is acceptable to perform this testing on the bench or installed.
2. The relays have been verified to be within their qualified life.
3. The relays are procured as nuclear safety related.

The staff has reviewed the licensee response, and has determined that it satisfies the component specific requirement as shown in the staff's safety evaluation for NEDO-32291-A Supplement 1, and is, therefore, acceptable.

3.3.3 Rosemount 710DU Series Trip Unit

For the Rosemount 710DU series, the approved bounding response time was determined to be 24 msec based on the trip units being procured by the utility as “nuclear safety related” or being dedicated for nuclear-safety-related application under a utility dedication program.

In their license amendment request, the licensee stated that the trip units are procured as nuclear safety related.

The staff has reviewed the licensee response and has determined that it satisfies the component specific requirement as shown in the staff’s safety evaluation for NEDO-32291-A Supplement 1, and is, therefore, acceptable.

3.3.4 GE Model CR305 Magnetic Contactor

The approved bounding response time for the GE Model CR305 magnetic contactors was determined to be either 65 msec if the APRM upscale trip test is performed as a total loop or 45 msec if the APRM upscale trip is tested in overlapping partial tests. In this case, the requirement was to determine which of the two postulated test methods are used and to use the appropriate BRT for the test method used.

In their license amendment request, the licensee stated that:

1. RPS scram contactor components are tested as part of the APRM upscale trip RTT, that the APRM upscale trip RTT is currently performed in overlapping partial tests, and that the APRM section is tested separately from the scram contactors.
2. The APRM upscale trip RTT is performed as a phased test with the APRM section tested separately from the scram contactors, and the acceptance criteria for the scram contactor and one interposing relay, not shared by other loops, is less than or equal to 50 msec.
3. Based upon the test method used, a BRT of 45 msec is appropriate.

The staff has reviewed the licensee response and has determined that it satisfies the component specific requirement as shown in the staff’s safety evaluation for NEDO-32291-A Supplement 1, and, therefore, a BRT of 45 msec is acceptable.

Based upon the above review, the staff finds that the licensee has implemented the provisions of the staff’s safety evaluation for RTT elimination and has satisfied the component specific requirements in accordance with the approved NEDO-32291-A Supplement 1. Therefore, the staff has concluded that the proposed Lasalle County Station, Units 1 & 2 TS modifications are acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Illinois State official was notified of the proposed issuance of the amendments. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (69 FR 19569). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

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