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November 20, 1995

U. S. Nuclear Regulatory Commission
Document Control Desk
M/S P1-37
Washington, DC 20555

Subject: River Bend Station - Unit 1
Docket No. 50-458
Licensing Amendment Request (LAR) 95-22, "Elimination of Selected Response Time Testing Requirements for Technical Specification 3.3.1.1, Reactor Protection System Instrumentation."

File Nos.: G9.5, G9.42

RBG-42191
RBEXEC-95-181
RBF1-95-0260

Gentlemen:

Pursuant to 10CFR50.90, Entergy Operations Inc., (EOI) hereby applies for amendment of Facility Operating License No. NFP-47, Appendix A - Technical Specifications, for River Bend Station (RBS). This request consists of proposed changes to the Technical Specifications (TS) to eliminate selected response time testing requirements. The affected TS is TS 3.3.1.1, "Reactor Protection System (RPS) Instrumentation." The proposed change is supported by the Boiling Water Reactor Owners' Group (BWROG) NEDO-32291, "System Analyses for Elimination of Selected Response Time Testing Requirements," January 1994 which demonstrates that other periodic tests required by TS, such as channel calibrations, channel checks, channel functional tests, and logic system functional tests, in conjunction with the actions taken in response to NRC Bulletin 90-01, "Loss of Fill-Oil in Transmitters Manufactured by Rosemount," and Supplement 1, are adequate to ensure that instrument response times are within acceptable limits. By letter dated December 28, 1994, the NRC staff provided their acceptance of NEDO-32291, subject to certain conditions, for reference in license amendment applications.

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A description of the proposed change and the associated justifications (including Basis For No Significant Hazards Consideration) are provided in Enclosure 2. A marked-up copy of the affected pages from the ITS is provided in Enclosure 3. A marked-up copy of the ITS Bases is provided for your information in Enclosure 4.

EOI has reviewed the proposed changes against the criteria of 10CFR51.22 for categorical exclusion from environmental impact considerations. The proposed changes do not involve a significant hazards consideration, or significantly increase the amounts or change the types of effluents that may be released off-site, nor do they significantly increase individual or cumulative occupational radiation exposures. Based on the foregoing, EOI concludes the proposed changes meet the criteria given in 10CFR51.22(c)(9) for categorical exclusion from the requirement for an Environmental Impact Statement.

This request is being submitted as part of the cost beneficial licensing action (CBLA) program where increased priority is granted to licensee requests for changes requiring NRC staff review that involve high cost without a commensurate safety benefit. Although the proposed change does have safety benefit (e.g., occupational dose reduction due to reduced testing), its major benefit is economic. Based on the conservative estimate of a reduction of 200 man-hours per outage and a potential reduction in outage duration, the total cost savings are estimated to be approximately $125,000 per refueling outage. These costs exceed the threshold of $100,000 established under the CBLA program.

Due to the refueling outage safety improvement and significant resource savings that can be realized by implementation of this proposed change, EOI is requesting that this application be reviewed on a schedule sufficient to support the sixth refueling outage (RF-6) currently scheduled to begin January 6, 1996.

This change has been approved by the NRC for Clinton Power Station as Amendment No. 98.

In accordance with the provisions of 10CFR50.4, the signed original of the requested amendment is enclosed; and in accordance with 10CFR50.30, an oath or affirmation relating to the requested changes to the Operating License is enclosed. This amendment request has been reviewed and accepted by the Facility Review Committee and the Nuclear Review Board.

Sincerely,

John R McPhee Jr.

JRM/jhp

enclosures:
1. Affirmation per 10CFR50.30
2. Background
3. Technical Specifications markups
4. Technical Specifications Bases markups

cc:

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ATTN: Administrator

BEFORE THE

UNITED STATES NUCLEAR REGULATORY COMMISSION

LICENSE NO. NPF-47

DOCKET NO. 50-458

IN THE MATTER OF

GULF STATES UTILITIES COMPANY

CAJUN ELECTRIC POWER COOPERATIVE AND

ENTERGY OPERATIONS, INC.

AFFIRMATION

I, John R. McGaha, state that I am Vice President-Operations of Entergy Operations, Inc., at River Bend Station; that on behalf of Entergy Operations, Inc., I am authorized by Entergy Operations, Inc. to sign and file with the Nuclear Regulatory Commission, this License Amendment Request, (LAR) 95-22, "Elimination of Selected Response Time Testing Requirements for Technical Specification 3.3.1.1, Reactor Protection System Instrumentation," that I signed this request as Vice President-Operations at River Bend Station of Entergy Operations, Inc.; and that the statements made and the matters set forth therein are true and correct to the best of my knowledge, information, and belief.

John R. McGaha

STATE OF LOUISIANA
WEST FELICIANA PARISH

SUBSCRIBED AND SWORN TO before me, Notary Public, in and for the Parish and State above named, this 20th day of November 1995.

(SEAL)

Claudia F. Hurst
Notary Public

My Commission expires with life.

BACKGROUND

This proposed change involves elimination of selected response time testing requirements from Technical Specifications (TS). Specifically, this includes the response time testing of sensors for selected parameters of the Reactor Protection System (RPS). Analyses have been performed by the Boiling Water Reactor Owners' Group (BWROG) demonstrating that other periodic tests required by TS, such as channel calibrations, channel checks, channel functional tests, and logic system functional tests, in conjunction with the actions taken in response to NRC Bulletin 90-01, "Loss of Fill-Oil in Transmitters Manufactured by Rosemount," and Supplement 1, are adequate to ensure that instrument response times are within acceptable limits. The evaluation is documented in NEDO-32291, "System Analyses for Elimination of Selected Response Time Testing." The analyses assert that the response time tests proposed for elimination are of little safety significance and result in unnecessary personnel radiation exposure, reduced availability of systems, and a significant burden to utility resources.

The basis for this request is consistent with Regulatory Guide 1.118 (Revision 2) which endorses IEEE 338-1977 which states:

> "Response time testing of all safety related equipment, per se, is not required if, in lieu of response time testing, the response time of safety system equipment is verified by functional testing, calibration checks 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."

NEDO-32291 identifies the potential failure modes of components in the affected instrumentation loops which could potentially impact the instrument loop response time. In addition, industry operating experience was reviewed to identify failures that affect response times and how they were detected. The failure modes identified were then evaluated to determine if the effect on response time would be detected by other testing requirements contained in TS. The results of this analysis demonstrate that other TS testing requirements (channel calibrations, channel checks, channel functional tests, and logic system functional tests) and actions taken in response to NRC Bulletin 90-01 Supplement 1 are sufficient to identify failure modes or degradation in instrument response times and assure operation of the analyzed instrument loops within acceptable limits. Furthermore, there were no failure modes identified that can be detected by response time testing that cannot also be detected by other TS-required tests.

The evaluations documented in NEDO-32291 demonstrate that response time testing can be eliminated for the following:

1) All ECCS actuation instrumentation,
2) Sensors for selected RPS actuation instrumentation, and

3) Sensors for selected main steam line isolation valve (MSIV) closure actuation instrumentation.

By letter dated December 28, 1994, the NRC staff provided their acceptance of NEDO-32291, subject to certain conditions, for reference in license amendment applications.

Description of Proposed Change

In accordance with 10CFR50.90, and following the guidance of NEDO-32291, the following change to the RBS TS is being proposed:

1. For RPS instrumentation, a new note (Note 2) has been added to Surveillance Requirement (SR) 3.3.1.1.18 to state that the channel sensors are excluded from the RPS RESPONSE TIME test for the Reactor Vessel Steam Dome Pressure - High (Function 3), Reactor Vessel Water Level - Low, Level 3 (Function 4), and Reactor Vessel Water Level - High, Level 8 (Function 5) instrumentation channels.

The proposed TS change is reflected on a mark-up copy of the affected page from the RBS TS in Enclosure 3. (It should be noted that the format of the proposed change is different than that provided in Appendix H of NEDO-32291 since RBS has adopted TS written in the Improved TS format. However, the proposed change meets the intent of those provided in Appendix H of NEDO-32291.) In addition, changes to the RBS TS Bases which are consistent with the proposed TS change has been provided in Enclosure 4.

Additional Information

In accordance with the conditions identified in the NRC staff's safety evaluation of NEDO-32291, the following information is provided:

EOI has confirmed the applicability of NEDO-32291 to RBS. As identified in NEDO-32291, RBS was a lead plant in the evaluation. In addition, EOI has confirmed that the components within the scope of this request have been evaluated in NEDO-32291. These components are identified in Appendix G (Table G-2) of NEDO-32291 and Table 1 of the NRC staff's safety evaluation of NEDO-32291. The components within the scope of this request for RBS are Rosemount transmitters models 1152, 1153, 1154.

EOI confirms that RBS is in conformance with the following recommendations from EPRI NP-7243, "Investigation of Response Time Testing Requirements":

1. Prior to installation of a new transmitter/switch or following refurbishment of a transmitter/switch (e.g., sensor cell or variable damping components), a hydraulic response time test will be performed to determine an initial sensor-specific response time value. Applicable RBS procedures will be revised prior to the upcoming refueling outage (RF-6) to fulfill this recommendation.

2. For transmitters and switches that use capillary tubes, capillary tube testing shall be performed after initial installation and after any maintenance or modification activity that could damage the lines. RBS currently does not utilize any transmitters or switches that use capillary tubes in any application that requires response time testing. Therefore, this recommendation is not applicable to RBS.

Applicable calibration procedures will be revised to include steps to input a fast ramp or step change to system components during calibrations. These procedures currently contain steps to require, after connection of the test equipment and prior to transmitter calibration, the transmitter to be pressurized to normal operating pressure to verify that the transmitter and test setup holds pressure and does not visibly leak. It is EOI's intent to satisfy this condition by supplementing these steps to require the transmitter to be pressurized in a step manner with a technician in direct communication (normally through the use of telephone headsets) or by observation to verify that the response of the transmitter to the step change is prompt, and in all cases less than five seconds. The applicable calibration procedures will be revised prior to the next performance of the procedure during the sixth refueling outage or later.

EOI conducted training for operators and technicians in response to Requested Action 4.a of NRC Bulletin (NRCB) 90-01, "Loss of Fill-Oil in Transmitters Manufactured by Rosemount." Completion of this training was documented in EOI's response to NRCB 90-01 Supplement 1 (reference letter RBG-38,223 dated March 11, 1993). Notwithstanding, EOI will revise the applicable calibration procedures to assure that technicians monitor for response time degradation during the performance of calibrations. These procedures will be revised prior to the next performance of the procedure during the sixth refueling outage or later. In addition, EOI is in full compliance with the guidelines of Supplement 1 to NRCB 90-01.

Surveillance testing procedures will be revised to ensure calibration tests are being performed in a manner that allows simultaneous monitoring of both the input and output response of transmitters under test. As stated above, the applicable calibration procedures will be revised to require the technicians to verify that the response of the transmitter to a step change is prompt, and in all cases less than five seconds. These procedures will be revised prior to the next performance of the procedure during the sixth refueling outage or later.

As stated above, the components affected by this request are limited to Rosemount transmitters model 1152, 1153, 1154. EOI has reviewed the vendor recommendations for these devices and confirmed that they do not contain recommendations for periodic response time testing.

Basis for Significant Hazards Determination

Entergy Operations Inc., (EOI) has evaluated this proposed Technical Specification change and has determined that it involves no significant hazards. This determination has been performed in accordance with the criteria set forth in 10CFR50.92. The following evaluation is provided for the three categories of the significant hazards consideration standards:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

   The purpose of the proposed Technical Specification (TS) change is to eliminate response time testing requirements for selected components in the Reactor Protection System (RPS). The Boiling Water reactors Owners' Group (BWROG) has completed an evaluation which demonstrates that response time testing is redundant to the other TS-required testing. These other tests, in conjunction with actions taken in response to NRC Bulletin 90-01, "Loss of Fill-Oil in Transmitters Manufactured by Rosemount," and Supplement 1, are sufficient to identify failure modes or degradation in instrument response times and ensure operation of the associated systems within acceptable limits. There are no known failure modes that can be detected by response time testing that cannot also be detected by the other TS-required testing. This evaluation was documented in NEDO-32291, "System Analyses for Elimination of Selected Response Time Testing Requirements," January 1994. EOI has confirmed the applicability of this evaluation to River Bend Station (RBS). In addition EOI will complete the actions identified in the NRC staff's safety evaluation of NEDO-32291.

   Because of the continued application of other existing TS-required tests such as channel calibration, channel checks, channel functional tests, and logic system functional tests, the response time of these systems will be maintained within the acceptance limits assumed in plant safety analyses and required for successful mitigation of an initiating event. The proposed changes do not affect the capability of the associated systems to perform their intended function within their required response time, nor do the proposed changes themselves affect the operation of any equipment. As a result, EOI has concluded that the proposed changes do not involve a significant increase in the probability or the consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

The proposed changes only apply to the testing requirements for the components identified above and do not result in any physical change to these or other components or their operation. As a result, no new failure modes are introduced. Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does this change involve a significant reduction in a margin of safety?

The current TS-required response times are based on the maximum allowable values as assumed in the plant safety analyses. These analyses conservatively establish the margin of safety. As described above, the proposed changes do not affect the capability of the associated systems to perform their intended function within the allowed response time used as the basis for the plant safety analyses. The potential failure modes for the components within the scope of this request were evaluated for impact on instrument response time. This evaluation confirmed that, with the exception of loss of fill-oil of Rosemount transmitters, the remaining TS-required testing is sufficient to identify failure modes or degradation in instrument response times and ensure operation of the instrument within the scope of this request is within acceptable limits. The actions taken in response to NRC Bulletin 90-01 and Supplement 1 are adequate to identify loss of fill-oil failures of Rosemount transmitters. As a result, it has been concluded that plant and system response to an initiating event will remain in compliance with the assumptions of the safety analysis.

Further, although not explicitly evaluated, the proposed changes will provide an improvement to plant safety and operation by reducing the time safety systems are unavailable, reducing the potential for safety system actuations, reducing plant shutdown risk, limiting radiation exposure to plant personnel, and eliminating the diversion of key personnel resources to conduct unnecessary testing. Therefore, EOI has concluded that this request will result in an overall increase in the margin of safety.

Based on the foregoing, EOI concludes that this request does not involve a significant hazards consideration.

License Amendment Request 95-22
November 20, 1995
Enclosure 3

TECHNICAL SPECIFICATIONS
MARK-UPS