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August 1, 1996

U. S. Nuclear Regulatory Commission
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Subject: River Bend Station - Unit I
Docket No. 50-458
License No. NPF-47
License Amendment Request (LAR) 96-26, Change to Technical Specifications 3.6.3.3, "Primary Containment/Drywell Hydrogen Mixing System," and 3.6.5.3, "Drywell Isolation Valves."

File Nos.: G9.5, G9.42

RBEXEC-96-093
RBF1-96-0181
RBG-42913

Gentlemen:

In accordance with 10 CFR 50.90, Entergy Operations, Inc. (EOI) hereby applies for amendment of Facility Operating License No. NPF-47, Appendix A - Technical Specifications, for River Bend Station (RBS). This request consists of a proposed change to Technical Specifications 3.6.3.3, "Primary Containment/Drywell Hydrogen Mixing System," and 3.6.5.3, "Drywell Isolation Valves."

This submittal proposes to incorporate the the old Technical Specification (old Standard Technical Specifications) requirements for limiting the time that the hydrogen mixing isolation valves are open back into the current Technical Specifications (ITS). The proposed changes reflect the NRC approved constraints contained in the RBS Safety Evaluation Report (SER).

Attachment 2 provides a description of the proposed changes and the associated justification (including a Basis for No Significant Hazards Consideration). A marked-up copy of the affected pages from the RBS Technical Specifications (ITS) is provided in Attachment 3. In addition, a copy of the applicable old Standard Technical Specification pages is included for reference.

A001

This request has been reviewed and approved by the RBS Facility Review Committee and the Nuclear Review Board. If you have any questions regarding this request or require additional information, please contact Tim Gates at (504) 381-4866.

JRM/RJK/RCD/kvm
attachments

cc: U. S. Nuclear Regulatory Commission
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Mr. David L. Wigginton
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Washington, DC 20555

Louisiana Department of Environmental Quality
Radiation Protection Division
P. O. Box 82135
Baton Rouge, LA 70884-2135
ATTN: Administrator

Attachment 1

BEFORE THE

UNITED STATES NUCLEAR REGULATORY COMMISSION

LICENSE NO. NPF-47

DOCKET NO. 50-458

IN THE MATTER OF

ENTERGY GULF STATES, INC.

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 River Bend Station License Amendment Request (LAR) 96-26, Change to Technical Specifications 3.6.3.3, "Primary Containment/Drywell Hydrogen Mixing System," and 3.6.5.3, "Drywell Isolation Valves."; that I signed this letter 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
PARISH OF WEST FELICIANA

SUBSCRIBED AND SWORN TO before me, a Notary Public, commissioned in the Parish above named, this 1st day of August, 1996.

(SEAL)

Claudia F. Hurst
Notary Public

ENTERGY OPERATIONS, INC.
RIVER BEND STATION
DOCKET 50-458/LICENSE NO. NPF-47
LICENSE AMENDMENT REQUEST 96-26

Licensing Document Involved

This proposed change affects the following Technical Specification sections:

3.6.3.3	Primary Containment/Drywell Hydrogen Mixing System
B 3.6.3.3	Bases - Primary Containment/Drywell Hydrogen Mixing System
3.6.5.3	Drywell Isolation Valves
B 3.6.5.3	Bases - Drywell Isolation Valves

Background

The hydrogen mixing system consists of two independent, 100 percent capacity trains located in the containment. Each train consists of one hydrogen mixing fan and associated piping, valving, and instrumentation.

The combustible gas control system is designed to monitor and control the concentration of hydrogen which may be released in the drywell and containment as a result of a postulated LOCA. As a portion of the combustible gas control system, the hydrogen mixing system has a primary function to mix the drywell atmosphere with the primary containment atmosphere after a LOCA.

In the short term after the design basis LOCA, the hydrogen concentration in the drywell will be higher than in the primary containment. When the hydrogen mixing system is activated, the drywell atmosphere will be in direct communication with the containment atmosphere. Containment air will be drawn into the drywell and drywell atmosphere will be exhausted into containment. This forced mixing dilutes the hydrogen, steam, and air mixture in the drywell; and increases the containment hydrogen concentration.

The hydrogen mixing system valves close on a LOCA signal which can be overridden by the operator upon verifying that an actual LOCA does not exist. Initiation of the hydrogen mixing system is based on manual actuation from the main control room. The hydrogen mixing system is assumed to be operated approximately 2.5 hr after the design basis LOCA event.

Description of Proposed Changes

This amendment request proposes that both a new Surveillance Requirement (SR) and a new Action be added to Technical Specification 3.6.5.3, "Drywell Isolation Valves." The new SR would require verification that in Modes 1 and 2 the total number of hours that the primary containment/drywell hydrogen mixing isolation inlet or outlet valves are open is ≤ 5 hours per 365 days and in Mode 3 the total number of hours that the primary containment/drywell hydrogen mixing isolation inlet or outlet valves are open is ≤ 90 hours per 365 days. The new Action to be added to Technical Specification 3.6.5.3 will require immediate isolation of the hydrogen mixing penetrations should the time limitations in the new SR ever be exceeded.

In addition, SR 3.6.3.3.1 in Technical Specification 3.6.3.3, "Primary Containment/Drywell Hydrogen Mixing System," requires operation of each primary/containment/drywell hydrogen mixing subsystem for ≥ 15 minutes every 92 days. This request proposes that SR 3.6.3.3.1 be changed from a frequency of every 92 days to a frequency of "every COLD SHUTDOWN, if not performed within the previous 92 days."

Also, the Note for SR 3.6.5.3.2 has been modified to only allow opening of the hydrogen mixing valves for pressure control. This is consistent with the original Techincal Specification LCO and the River Bend SER.

Justification for Proposed Changes

The changes proposed in this amendment request are consistent with both the original River Bend Station Technical Specifications and Safety Evaluation Report (SER). The River Bend SER states that RBS had not demonstrated that the hydrogen mixing isolation valves were capable of closing under accident conditions in the drywell. While closure of the valve was demonstrated during the review of Generic letter 89-10 "Safety-related Motor Operated Valve (MOV) Testing and Surveillance Program" by analytical means, the valve was never demonstrated to be functional for the postulated design basis loads to the requirements of the USAR. The valve was demonstrated to be functional for the postulated seismic and hydrodynamic loads against a maximum differential pressure of 15 psig by static deflection testing. However, this static deflection testing did not test to the maximum differential pressure of 25 psig postulated for the valve under DBA LOCA conditions. Since the test was not performed at the required maximum differential pressure of 25 psig, the valve did not meet the testing requirements of the USAR.

The old Standard Technical Specifications (Attachment 3) used at River Bend reflected this condition. Before converting to Improved Technical Specifications (ITS), a requirement existed in the Technical Specifications to determine the cumulative time that the hydrogen mixing inlet and outlet lines were open. The same Technical Specification established a limit for the lines to be open of 5 hours in a 365 day period while in Modes 1 and 2 and 90 hours in a 365 day period while in Mode 3. This Specification was established based on the River Bend SER which states in Supplement 2, section 6.2.4, "Since the applicant has not demonstrated that these valves are capable of closing under accident conditions in the drywell, certain restrictions apply. Technical Specification 3.6.6.2 specifies that in Operating Modes 1 and 2, the total number of hours used should not exceed 5 hours/365 days and in Operating Mode 3 the number of hours should be limited to 90 hours/365 days." Also, since the capability for closure under accident conditions was never demonstrated, the system was only required to be run to verify operability when the plant was in COLD SHUTDOWN.

When the conversion was made to ITS, the requirement for operating the primary containment/drywell hydrogen mixing system was included in Technical Specification 3.6.3.3, "Primary Containment/Drywell Hydrogen Mixing System," under Surveillance Requirement 3.6.3.3.1 which requires operation of the system for ≥ 15 minutes every 92 days. This changed the requirement for only operating the system during COLD SHUTDOWN. This change was made, but no discussion justifying the change was included in the Technical Specification submittal for implementing ITS. Also, the NRC SER for ITS never addressed the change.

The change that omitted the time requirements for opening the hydrogen mixing inlet and outlet lines was discussed in the submittal; however, the "No Significant Hazards" consideration that changed the requirement did not discuss the SER requirement that existed for these valves. These requirements should not have been changed, since the hydrogen mixing system still has not fully demonstrated closure capability under accident conditions.

The changes proposed in this amendment request are justified because they reflect the conditions already agreed upon between River Bend Station and the Nuclear Regulatory Commission in the Safety Evaluation Report for plant operation. The changes proposed merely incorporate the original Technical Specification requirements in place prior to ITS. The only alteration made to the original Technical Specification requirements is that the requirement for determining the cumulative time that the hydrogen mixing inlet and outlet valves are open will be performed at a frequency of 31 days instead of every 7 days as was required in the old River Bend Standard Technical Specifications. The new frequency will place this determination on a frequency that is the same as that of SR 3.6.5.3.1 which verifies that the primary containment/drywell hydrogen mixing isolation valves are closed. The determination of cumulative open times is an administrative function that can more easily be accomplished along with the closure verification requirement. Since the valves are required to be closed, any opening of the valves will be due to abnormal conditions. A 7-day requirement for administratively tracking a condition that is by nature rare (valves required to only be open

5 hours per 365 days in Modes 1 and 2) is overly conservative. This single change to the old Technical Specification requirements is administrative in nature.

No Significant Hazards Consideration

Entergy Operations Inc., (EOI) proposes to change the current River Bend Station (RBS) Technical Specifications (TS) so that the requirements for opening the hydrogen mixing inlet and outlet valves during Modes 1, 2, and 3 that were in place under the old RBS Technical Specifications are put back into the Improved Technical Specifications (ITS).

In accordance with 10CFR50.92, a proposed change to the operating license involves no "significant hazards" if operation of the facility, in accordance with the proposed change, would not 1) involve a significant increase in the probability or consequences of any accident previously evaluated, 2) create the possibility of a new or different kind of accident from previously evaluated, or 3) involve a significant reduction in a margin to safety. This request is evaluated against each of these criteria as follows:

1. *This request does not involve a significant increase in the probability or consequences of an accident previously evaluated.*

   The proposed changes in this submittal put the requirements that were in the original Technical Specifications for the Hydrogen Mixing System back into the current Technical Specifications. The changes reenstate into the Technical Specifications limitations that were previously agreed to between River Bend and the Nuclear Regulatory Commission in the FSAR Safety Evaluation Report for the Hydrogen Mixing System.

   The River Bend SER states in Supplement 2, Section 6.2.4, "Since the applicant has not demonstrated that these valves are capable of closing under accident conditions in the drywell, certain restrictions apply. Technical Specification 3.6.6.2 specifies that in Operating Modes 1 and 2, the total number of hours used should not exceed 5 hours/365 days and in Operating Mode 3 the number of hours should be limited to 90 hours/365 days." To date, the hydrogen mixing isolation valves have not been fully demonstrated to be capable of closing under accident conditions in the drywell. The old Standard Technical Specifications (Attachment 2) used at River Bend reflected this condition. When conversion to ITS was made, these requirements were dropped but should not have been. In addition, the requirement to operate the hydrogen mixing system every 92 days during Modes 1, 2, and 3 was added without consideration for the requirements in the River Bend Safety Evaluation Report.

Consequently, for these proposed changes, since the requirements already exist and are being reenstated into the Technical Specifications, this change is administrative in nature. The requirements have remained in place through the SER, but were inadvertently removed from the Technical Specifications. This change places the requirements from the SER back into the Technical Specifications.

In addition, changing the requirement from the old Technical Specifications for determining the cumulative time that the hydrogen mixing inlet and outlet valves are open from every 7 days to every 31 days is again administrative in nature, since this only changes the frequency with which a given requirement is tracked administratively. It does not change the actual requirement in any way.

Consequently, since both of these changes are administrative in nature and only incorporate requirements into the Technical Specifications that already existed in the RBS FSAR Safety Evaluation Report, the changes proposed in this amendment request do not change the probability or consequences of an accident previously evaluated.

2. *This request does not create the possibility of a new or different kind of accident from any accident previously evaluated.*

This proposed change does not involve a change to the plant design or operation. As a result, the proposed change does not affect any of the parameters or conditions that could contribute to the initiation of any accidents.

The changes proposed in this amendment request are administrative in nature and merely add requirements back into the Technical Specifications that were inadvertently deleted during the conversion to ITS. Because of the administrative nature of the proposed changes, it is not possible to create a new or different kind of accident from any accident previously evaluated.

3. *This request does not involve a significant reduction in a margin to safety*

The proposed changes in this amendment request reenstate requirements into the Technical Specifications that are contained present in the RBS FSAR Safety Evaluation Report. These requirements were inadvertently deleted during the conversion to ITS.

Because of the administrative nature of these Technical Specification changes, there is no change to the margin to safety.

Environmental Impact Consideration

EOI has reviewed this request against the criteria of 10CFR51.22 for environmental considerations. Since this request involves (I) no significant hazard consideration, (ii) no significant change in the types or significant increase in the amounts of any effluents that may be released offsite, and (iii) no significant increase in individual or cumulative occupational radiation exposure, EOI has concluded that the proposed change meets the criteria given in 10CFR51.22 (c)(9) for a categorical exclusion from the requirement for an environmental impact statement.

Notification of State Personnel

A copy of this amendment request has been provided to the State of Louisiana, Department of Environmental Quality - Radiation Protection Division.