ENTERGY

Entergy Operations, Inc.
River Bend Station
5485 U.S. Highway 61
P.O. Box 220
St. Francisville, LA 70775
(504) 381-4374
FAX (504) 381-4872

JOHN R. McGAHA, JR.
Vice President
Operations

May 30 , 1996

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) 96-25, "Incorporation of the 5-Start Air Pressure Design Criterion for the Division III Diesel Generator in Technical Specification 3.8.3."

File Nos.: G9.5, G9.42

RBG-42946
RBEXEC-96-066
RBF1-96-0094

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 Technical Specifications (TS) Surveillance Requirement (SR) 3.8.3.4 to specify a 5-start pressure for the air start receivers associated with the Division III, High Pressure Core Spray emergency diesel generator. Note that the current value provided in SR 3.8.3.4 is a pressure that can provide sufficient reserve air volume for at least five start attempts (while in a testing configuration) for the Division I and II Standby Diesel Generators. The proposed revision will provide a similar 5-start value for the Division III diesel. Appropriate bases changes have also been developed in conjunction with this proposed TS change. The proposed TS change and the associated basis changes are consistent with the guidance provided in NUREG-1434, "Standard Technical Specifications, General Electric Plants, BWR/6," and are virtually identical to the Grand Gulf Nuclear Station ITS bases with regard to the discussions provided on the 5-start and multiple start design margins.

A001

A description of the proposed change and the associated Basis For No Significant Hazards Consideration are provided in Enclosure 2. A marked-up copy of the affected page from the ITS is provided in Enclosure 3. A marked-up copy of the affected TS Bases pages are 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.

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 McGaha

JRM/MKB/kvm

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

cc:

U. S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011

NRC Senior Resident Inspector
P. O. Box 1050
St. Francisville, LA 70775

Mr. David Wigginton
NRR Project Manager
U. S. Nuclear Regulatory Commission
Mail Stop 13-H-3
One White Flint North
11555 Rockville Pike
Rockville, MD 20852

Louisiana Department of Environmental Quality
Radiation Protection Division
P. O. Box 82135
Baton Rouge, LA 70884-2135
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) 96-25, "Incorporation of the 5-Start Air Pressure Design Criterion for the Division III Diesel Generator in Technical Specification 3.8.3," 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

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 30th day of May, 1996.

(SEAL)

Claudia F. Hurst

Claudia F. Hurst
Notary Public

My Commission expires with life.

Background

During NRC's Engineering and Technical Support Inspection conducted during the Spring of 1995, example 3 of Violation 50-458/9510-01 questioned the appropriateness of the air receiver pressure specified in the Technical Specifications for the Division III air start system. Specifically, the air receiver pressure specified in the Technical Specifications was not representative of the 5-start value for the Division III diesel as discussed in the Supplement 2 to the River Bend's Safety Evaluation Report (SER), NUREG -0989. The applicable licensing basis for the value in the Technical Specifications was a topic of much discussion (i.e., while the 5-start value was clearly a design margin utilized by NRC to evaluate the acceptability of the starting air system for this diesel, the acceptability of the current value in the Technical Specifications in lieu of a 5-start value was not clear). In response to this cited violation, administrative controls were established in the interim to maintain the minimum Division III air receiver pressure above the 5-start pressure referenced in SER. These administrative controls were maintained in place until the basis for this requirement was clarified with the issuance of the Improved Technical Specifications. The bases issued with the Improved Technical Specifications were written such that the 5-start value was not the basis for this Technical Specification requirement.

NRC reviewed our actions in response to this violation in December of 1995, and based on further discussions, additional justification for the basis issued with the Improved Technical Specifications was deemed necessary. As documented in NRC Inspection Report 50-458/95-26, River Bend committed to resolve this issue, if appropriate, via a license amendment request by May 10, 1996. This request is our resolution. Note that a short extension to this due date was requested and approved via phone conversation with River Bend's NRC Project Manager on April 30, 1996.

This proposed change adds a separate air receiver pressure value to SR 3.8.3.4 for the Division III diesel. The current SR value is 160 psig and this value has been applied to all three safety related diesels at River Bend. While this value is representative of a 5-start pressure for the Division I and II diesel generators, the capability of this pressure to provide 5-starts for the Division III diesel has not been established. Note that the five start requirement is a sizing requirement contained in NUREG-0800 section 9.5.6 which solely serves to provide a significant margin for starting air volume. The capability to repetitively start any of three safety related diesels is functionally limited to special test configurations. Specifically for the Division III diesel under emergency start conditions, the emergency start sequence will result in the diesel rolling on starting air until the engine speed exceeds 150 rpm (indicative of a started engine) or the pressure in the receiver tank drops below the 100 psig necessary to turn the air start motors.

As discussed in the above two referenced Inspection Reports and supported by site-specific test data, the current Technical Specification value of 160 psig does provide for one emergency start for each of the Division I and II diesel above the low pressure lockout and for multiple manual starts below this lockout. Site-specific tests on the Division I and II diesels have demonstrated

that at least five start attempts can be achieved from an initial pressure of 160 psig under a test configuration where the 120 psig emergency lockout is bypassed. A new value of 200 psig is being proposed for the Division III air receivers. This value is based on pre-operational testing which demonstrated five start attempts from one air receiver bank. Note as discussed above, multiple start attempts can only be achieved under specific test conditions due to the start logic of this diesel. This proposed change will serve to clearly establish this 5-start requirement as the licensing and design sizing basis for each of the River Bend emergency diesels. The Technical Specification bases will be revised as shown in Enclosure 4 to describe this revised requirement.

NRC's acceptance of this design margin for the Division III diesel is documented in Supplement 2 of the River Bend SER (NUREG-0989). The Division III value referenced in the River Bend SER is 215 psig. This SER value was based on an extrapolation of data from a test conducted at the Perry Plant on an identical diesel. Subsequent to the issuance of the information referenced in the Supplement 2 to the SER, River Bend performed site-specific pre-operational testing of the Division III diesel air start system. This test demonstrated the capability of the Division III air start system to provide five start attempts with an individual air receiver bank initially pressurized to 200 psig. Based on this site-specific test data, a value of 200 psig is proposed as the Surveillance Requirement value for the Division III diesel. Note that the results of the Perry and River Bend tests support slightly different 5-start values (215 vice 200). The referenced Perry test was performed from an initial pressure of 215 psig and terminated at an ending pressure of 150 psig vice the River Bend test being performed with an initial pressure of 240 psig and being terminated at an ending pressure of 130 psig. More than 5 successful start attempts were achieved during the River Bend test and the proposed 200 psig value satisfies the 5-start criterion as defined in NUREG-0800. While the SER was not updated to reflect the results of this site-specific testing, this testing did not change the conclusions provided in the SER regarding the margin provided in the design of the air start system.

Description of Proposed Change

The proposed TS change is reflected in the marked-up copy of the affected page from the River Bend Technical Specifications in Enclosure 3. This change adds a separate value of 200 psig as the minimum acceptable pressure for the required Division III air start receiver bank. The minimum required pressure for the Division I and II diesels is not affected by this change. In addition, changes to the River Bend Technical Specification Bases have been provided which support the proposed Technical Specification change. The bases revisions are provided in Enclosure 4. The proposed Technical Specification change and the associated bases changes are consistent with the guidance provided in NUREG-1434, "Standard Technical Specifications, General Electric Plants, BWR/6." The proposed air receiver pressure is based on site-specific test data.

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 change is to establish consistency between the basis for the air start pressure required for the Division I and II diesels and the value required for the Division III diesel. The value of 160 psig currently specified in SR 3.8.3.4 is representative of a 5-start value for the Division I and II diesels; however, this value is not representative of a 5-start value for the Division III diesel. While the 160 psig value does serve to satisfy the requirements of 10 CFR 50.36 with regard to maintaining the lowest functional level required for the Division III diesel to perform its design safety function, the current value does not serve to maintain the design margin utilized when sizing the air receivers for the purpose of satisfying the Standard Review Plan guidance contained in section 9.5.6 (NUREG-0800 Revision 2).

   The proposed value fully complies with the guidance provided in NUREG-0800 and is more conservative than the value currently included in the Technical Specifications. The proposed value is well within the capability of the air system's design and will not subject the air system to excessive pressures or undue cycling of the system's compressors. The proposed change has no effect on the probability of an accident as diesel generators have no bearing on the initiation of any analyzed event. In addition, the capability of the Division III diesel to perform its design basis function (i.e., starting, accelerating to rated speed and voltage, and connecting to its respective bus within 13 seconds) is not affected by this change. The ability of the diesel to support the mitigation of analyzed accidents is not affected and hence the consequences of any analyzed event are not affected. Therefore, the proposed change does not increase the probability or the consequences of previously analyzed accidents.

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

   The proposed change does not introduce any new failure modes. All of the affected components remain within their applicable design limits. In addition, the environmental qualification of any plant equipment is not adversely affected by the proposed change. Since the performance of this system is not adversely affected by this change and the design margins of this system are not challenged in a manner differently than previously

analyzed, the proposed change does 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 proposed change raises the required starting air pressure for the Division III above that currently required by the Technical Specifications to establish consistency between the basis of the Division III value with the value used for the Division I and II diesels. Issuance of the proposed change will establish a 5 start air receiver pressure for each of the three safety-related diesels at River Bend. While the proposed value is slightly less than the 5 start value discussed in River Bend's SER, the proposed value is supported by the River Bend site-specific test data and does not adversely affect existing analyses or system performance. Therefore, the proposed change does not result in a reduction in a margin of safety.

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