GULF STATES UTILITIES COMPANY

RIVER BEND STATION POST OFFICE BOX 220 ST. FRANCISVILLE, LOUISIANA 70775

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U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Gentlemen:

River Bend Station - Unit 1
Docket No. 50-458

Gulf States Utilities (GSU) Company hereby files an amendment to the River Bend Station - Unit 1 Facility Operating License NPF-47, pursuant to 10CFR50.90. This application is filed to allow normal movement of a local power range monitor not be considered a Core Alteration. The attachment to this letter includes the proposed revision to the Technical Specifications and justifications for this change.

Pursuant to 10CFR170.12, GSU has enclosed a check in the amount of one hundred fifty dollars ($150.00) for the license amendment application fee. Your prompt attention to this application is appreciated.

Sincerely,

J. C. Deddens
Senior Vice President
River Bend Nuclear Group

JCD/JEB/LAE/RJK/DAS/ch

Attachment

cc: U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, TX 76011

Mr. Walt Paulson, Project Manager
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

NRC Resident Inspector
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w/check $150
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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

STATE OF LOUISIANA)

PARISH OF WEST FELICIANA)

Docket No. 50-458

In the Matter of)

GULF STATES UTILITIES COMPANY)

(River Bend Station - Unit 1)

AFFIDAVIT

J. C. Deddens, being duly sworn, states that he is a Senior Vice President of Gulf States Utilities Company; that he is authorized on the part of said company to sign and file with the Nuclear Regulatory Commission the documents attached hereto; and that all such documents are true and correct to the best of his knowledge, information and belief.

J. C. Deddens

Subscribed and sworn to before me, a Notary Public in and for the State and Parish above named, this 5th day of August, 1988. My Commission expires with life.

Claudia F. Hurst
Notary Public in and for
West Feliciana Parish, Louisiana

ATTACHMENT
GULF STATES UTILITIES COMPANY
RIVER BEND STATION
DOCKET 50-458/LICENSE NO. NPF-47

CORE ALTERATION DEFINITION

Licensing Document Involved: Technical Specifications

ITEMS: Definition 1.7
Table 3.3.1-1

PAGES: 1.2
3/4 3-4

REASON FOR REQUEST

This request to amend the CORE ALTERATION definition of the River Bend Station Technical Specification is submitted according to 10CFR50.90. River Bend Station's Technical Specifications currently consider local power range monitor (LPRM) movement a CORE ALTERATION. The current Technical Specification definition of CORE ALTERATION provides a specific exception for the movement of certain incore instrumentation. Because the LPRM strings are only removed from the core when they are being replaced and they have no normal drive mechanism, a similar exception from the definition of CORE ALTERATION is being requested. Amending the definition to exclude normal movement (and hence, replacement) of an LPRM as a CORE ALTERATION will no longer restrict LPRM replacement to refueling operations, but will allow for LPRM replacement during those modes of operation in which the LPRM's signal is not required and environmental conditions permit under-vessel work.

This proposed amendment request would revise the definition of a CORE ALTERATION to allow normal movement of an LPRM without imposing the constraints associated with operations defined to be a CORE ALTERATION.

DESCRIPTION

At River Bend Station (RBS) 132 LPRM detectors are located at 33 locations at different axial heights in the core to provide localized neutron flux detection for input to eight redundant average power range monitor (APRM) channels over the full reactor power range . An LPRM assembly consists of four neutron detectors each installed in a dry tube within a housing (see USAR Figure 7.6-6). In addition, each location contains a calibration tube for a traversing incore probe (TIP).

River Bend Station is a BWR/6 which incorporates certain design improvements over the earlier GE BWRs. One of these improvements is the introduction of the dry tube which is part of the reactor pressure vessel boundary. These dry tubes extend from the bottom of the RPV vertically to the top of the core and house the LPRM strings. The LPRMs are not only located outside of the RPV and, thus, protected from reactor pressure and coolant, but removal and installation of the LPRMs occurs from underneath the RPV. Thus, the reactor vessel head does not need to be removed and fuel does not need to be moved from around the dry tube for maintenance or replacement of LPRMs to occur.

However, typical LPRM replacement at a General Electric BWR/2-5 must occur during refueling outages. Their LPRM detectors are located inside the reactor pressure vessel and removal of the LPRM requires that fuel be removed from around the detector string so that equipment can be used from the refueling platform to remove the detectors. There also exists a potential reactor coolant leakage path during LPRM replacement since the LPRM gland seal for these types of reactors is part of the reactor pressure vessel (RPV). LPRM movement or replacement is appropriately considered to be a CORE ALTERATION for these reactors because of the potential for reactor internals damage or a fuel handling error during the LPRM replacement process.

General Electric concurs in principle with Gulf States Utilities' proposed Technical Specification definition change. RBS' Technical Specifications currently consider movement of a LPRM a CORE ALTERATION. However, the Technical Specification definition of CORE ALTERATION provides a specific exception for the movement of certain incore instrumentation. Because the LPRM strings are only removed from the core when they are being replaced and they have no normal drive mechanism, a similar exception from the definition of CORE ALTERATION is being requested for movement of LPRMs. Amending the definition to exclude normal movement (and hence, replacement) of a LPRM as a CORE ALTERATION will no longer restrict LPRM replacement to refueling operations, but will allow for LPRM replacement during those modes of operation in which the LPRM's signal is not required and environmental conditions permit under vessel work.

Implementation of the proposed change to the CORE ALTERATION definition will require two changes to the RBS Technical Specifications.

1) The second sentence of definition 1.7, page 1-2, CORE ALTERATION, should include LPRM movement as an exempted instrumentation movement, such as exists for source range monitors (SRMs), intermediate range monitors (IRMs), and traversing incore probes (TIPs). GSU proposes that this sentence be changed to read as follows:

   "Normal movement of the SRMs, IRMs, <u>LPRMs</u>, TIPs or special movable detectors is not considered a CORE ALTERATION."

2) Also, this proposed change will eliminate footnote * for ACTION 3 of Table 3.3.1-1, Reactor Protection System Instrumentation, on page 3/4 3-4. With LPRM replacement not considered a CORE ALTERATION by definition, this note exempting LPRM replacement as a CORE ALTERATION under certain conditions will no longer be necessary.

It should be noted that this proposed change to the CORE ALTERATION definition is the same as that previously approved on the docket for the Perry plant, another BWR/6.

SIGNIFICANT HAZARDS CONSIDERATION

In accordance with the requirements of 10CFR50.92, the following discussions are provided in support of the determination that no significant hazards are created or increased by the changes proposed in this submittal.

1. The change proposed does not increase the probability or the consequences of a previously evaluated accident because:

   The introduction of dry tubes to the General Electric BWR/6 reactor pressure vessel design allows for LPRM replacement from below the reactor vessel. This design feature eliminates the necessity to move fuel from around a LPRM string for detector removal or maintenance. Therefore, the proposed definition change will still preclude the possibility of reactor internals damage and reactivity changes without the constraints imposed by the Technical Specifications for operations properly defined to be a CORE ALTERATION. In addition, the dry tube design eliminates any concern of a reactor coolant leakage path from the reactor pressure vessel since LPRM replacement occurs external to the RPV boundary. This proposed change does not involve a design change and hence, does not impact the function or operation of the power range monitors (LPRM strings) or their ability to monitor reactor power (neutron flux) from startup through full power operation. Additionally, the proposed change does not result in a change to any safety analyses previously provided in RBS Updated Safety Analysis Report Sections 6 and 15.

   Excluding normal movement of a LPRM from the CORE ALTERATION definition will allow removal of an LPRM without the constraints imposed by the Technical Specifications for operations properly defined to be a CORE ALTERATION. The proposed change is consistent with the specific exception for the movement of other incore instrumentation. Because the LPRM strings are only removed from the core when they are being replaced and they have no normal drive mechanism, a similar exception from the definition of CORE ALTERATION is being requested. Additionally, the proposed definition change will eliminate the need for footnote * and therefore, this footnote is being requested to be deleted.

2. The change proposed by this submittal does not create the possibility of a new or different kind of accident from any previously evaluated because:

   This proposed change takes credit for the benefits of the dry tube as a safety enhancement to the General Electric BWR. Fuel handling errors, reactor core internals damage and reactor coolant leakage paths from the RPV due to LPRM movement are eliminated with the dry tube design feature. Therefore, the proposed definition change will still preclude the possibility of reactor internals damage and reactivity changes within the reactor core without the constraints imposed on operations properly defined to be a CORE ALTERATION. The dry tube is part of the RPV pressure boundary, thus making LPRM replacement an external operation with regard to the RPV boundary. Development of the RBS Technical Specifications did not take credit for this enhanced BWR/6 design feature. This proposed change does not impact the reliability of the LPRM strings or their function. It merely allows RBS to take credit for the original dry tube design feature. Additionally, the proposed change does not involve a design change and hence, does not introduce any new failure modes. Therefore, this proposed change does not create any new or different kind of accident from any previously evaluated.

3. This change does not involve a significant reduction in the margin of safety because:

> The introduction of the dry tube as part of the General Electric BWR/6's RPV design increased the margin of safety with regard to the LPRMs because of their protection from the reactor pressure and coolant and the elimination of the necessity for reactor vessel head and fuel movement in order to facilitate maintenance or replacement of the LPRMs. The possibility of fuel handling errors and damage to reactor internals is eliminated because fuel movement is not necessary to gain access to the LPRMs in a BWR/6. Also, the potential of a reactor coolant leakage path from the vessel is eliminated because RPV integrity is not breached since the LPRMs are located entirely external to the RPV pressure boundary with the dry tube design. Therefore, the proposed change does not reduce the margin of safety.

The proposed change, does not increase the possibility or the consequences of a previously evaluated event and does not create a new or different kind of accident from any previously evaluated since this proposed definition change still precludes the possibility of reactor internals damage and reactivity changes within the reactor core without the constraints imposed by the Technical Specifications for operations properly defined to be a CORE ALTERATION. Also, the results of this proposed change are within all acceptable criteria with respect to system components and design requirements. The ability of the LPRMs to perform their function as described in the USAR is maintained and therefore, the proposed change does not involve a reduction in the margin of safety. Therefore, GSU concludes that no significant hazards are involved.

REVISED TECHNICAL SPECIFICATION

The proposed revisions are provided in the Enclosure.

SCHEDULE FOR ATTAINING COMPLIANCE

River Bend Station is currently in compliance with the applicable Technical Specification. However, to provide the operational flexibility required in meeting the second refueling outage schedule for RBS, GSU requests this proposed change be approved by December 31, 1988. This will allow adequate advanced planning prior to the refueling outage currently scheduled to begin March 15, 1989.

NOTIFICATION OF STATE PERSONNEL

A copy of this amendment application has been provided to the State of Louisiana, Department of Environmental Quality - Nuclear Energy Division.

ENVIRONMENTAL IMPACT APPRAISAL

Gulf States Utilities Company (GSU) has reviewed the proposed Technical Specification change against the criteria of 10 CFR 51.22 for environmental considerations. As shown above, the proposed change does not involve a significant hazards consideration, nor increase the types and amounts of effluents that may be released offsite, nor significantly increase individual or cumulative occupational radiation exposures. Based on the foregoing, GSU concludes that the proposed Technical Specification change meets the criteria given in 10 CFR 51.22(c)(9) for a categorical exclusion from the requirement for an Environmental Impact Statement.

ENCLOSURE