

March 23, 2000

Mr. Randall K. Edington  
Vice President - Operations  
Entergy Operations, Inc.  
River Bend Station  
P. O. Box 220  
St. Francisville, LA 70775

SUBJECT: RIVER BEND STATION, UNIT 1 - REQUEST FOR ADDITIONAL  
INFORMATION - LICENSE AMENDMENT REQUEST TO PERMIT REMOVAL  
OF THE INCLINED FUEL TRANSFER SYSTEM BLIND FLANGE  
(TAC NO. MA7827)

Dear Mr. Edington:

By letter dated December 20, 1999, Entergy Operations, Inc., requested an amendment to Facility Operating License NPF-47, for the River Bend Station, Unit 1 (RBS). The amendment proposes a change to Technical Specifications Section 3.6.1.3, "Primary Containment Isolation Valves (PCIVs)," to allow the removal of the inclined fuel transfer system (IFTS) primary containment isolation blind flange while the primary containment is required to be operable. The Nuclear Regulatory Commission staff has reviewed your submittal and finds that additional information is needed in order to complete its evaluation.

Enclosed is a request for additional information regarding the RBS IFTS blind flange removal license amendment application. Based upon discussions with members of your staff, it is requested that your response be provided within 60 days from receipt of this letter.

Sincerely,

*/RA/*

David H. Jaffe, Acting Project Manager, Section 1  
Project Directorate IV & Decommissioning  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-458

Enclosure: Request for Additional Information

cc w/encl: See next page

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\*With Comments

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**REQUEST FOR ADDITIONAL INFORMATION  
INCLINED FUEL TRANSFER SYSTEM BLIND FLANGE REMOVAL  
RIVER BEND STATION, UNIT 1**

By letter dated December 20, 1999, Energy Operations, Inc. (the licensee) requested a license amendment to change Technical Specification 3.6.1.3, "Primary Containment Isolation Valves (PCIVs)" at River Bend Station, Unit 1. The requested Technical Specification change would allow the inclined fuel transfer system (IFTS) blind flange to be removed with the reactor at power. The blind flange performs a containment isolation function during plant operation. The justification provided by the licensee was that the water level in the spent fuel pool can maintain a water seal in the IFTS to perform the containment isolation function without the blind flange. This was demonstrated by the licensee's analysis of a design basis large break loss-of-coolant LOCA.

However, with IFTS blind flange removed, a small break LOCA (SBLOCA) with drywell bypass leakage such as the one described in the Updated Safety Analysis Report, Section 6.2.1.1.3.4 and Figure 6.2-27a, may result in a significantly higher containment pressure than the peak containment pressure resulting from a design basis large break LOCA. Under such an accident, the water seal in the IFTS may not be adequate to perform the containment isolation function, because the peak containment pressure following an SBLOCA can be higher than the back pressure of the water seal established by the water in the spent fuel pool. We believe that the bottom gate valve is not a containment isolation valve. Therefore, the water can be pushed through the IFTS into the fuel building even though the gate valve is closed. Consequently, it may create a containment atmosphere leak path.

In the submittal, the licensee recognized the higher containment pressure resulting from a SBLOCA, but did not recognize the potential for the above containment leak path. Without such a leak path for an SBLOCA, the licensee concluded that the SBLOCA is less severe than a design basis large break LOCA. We find the licensee's analysis insufficient because they implicitly assumed that the containment integrity could be maintained following an SBLOCA with the IFTS blind flange removed. The adequacy of the water seal in the IFTS against a higher containment pressure resulting from an SBLOCA has not been demonstrated in the submittal. Therefore, we do not believe that the water seal against a non-containment isolation valve can adequately perform the containment isolation function. Because of the above concern, we have the following request for additional information.

1. (a) Provide an analyses to show the adequacy of the water seal following an SBLOCA as discussed above; or
- (b) Without an adequate water seal to perform containment isolation function, it is not clear that a design basis SBLOCA without containment integrity is less severe than a design basis large break LOCA with containment integrity. Provide an analysis to demonstrate that the large break LOCA is indeed the bounding accident for the removal of the blind flange in the IFTS. If not, identify and analyze the consequences of the worst design basis accident and demonstrate compliance with General Design Criterion 54.

ENCLOSURE

2. Following a postulated large break LOCA, the water seal in the IFTS would prevent the containment atmosphere from leaking through the IFTS. However, the water from the upper containment refueling pool could leak through the IFTS to the fuel building regardless of whether the containment atmosphere is leaking or not.

Provide information as to (a) what impact could result from water transfer under design basis LOCA conditions (large break LOCA or SBLOCA conditions with drywell bypass, whichever is the worst case) from the upper containment refueling pool to the fuel building spent fuel pool with the blind flange removed, and (b) whether excessive leakage through the IFTS penetration could result in overflow of the spent fuel pool. If water transfer and overflow of the spent fuel pool is possible, describe the impact on the dedicated operator, equipment, and post accident radiation levels in the fuel building. This description should identify all the equipment in the fuel building that may be impacted and whether there are any controls in place to protect this equipment.

3. According to the submittal, the licensee indicated that the purpose of this license amendment to remove IFTS blind flange during power operation is to allow a sufficient time for the checkout of the transfer system prior to refueling; the system checkout takes several days. The proposed license amendment would allow the removal of IFTS blind flange at any time during operation and for any length of time; i.e., 18 months between refueling outages. In light of the possibility of losing containment integrity during an SBLOCA, justify the proposed duration of 18 months without the IFTS blind flange versus the need of only several days.

River Bend Station

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